



A survey of the quality of clinical learning environments of clinical placement settings as perceived by students from a provincial nursing college

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DECLARATION

I, Yodhi Naidoo, student number 24738174, declare that:

A survey of the quality of clinical learning environment of clinical placement settings as perceived by students from a provincial nursing college is my own work and that all the sources that I used are acknowledged in the reference list.

The study has been approved by the institutional research ethics regulatory committee of the North-West University (Potchefstroom Campus), Directorate Health Research and Knowledge Management of the Provincial Department of Health, Directorate Provincial College of Nursing as well as the training campuses involved in the study.

The study complies with the research ethical standards of the North-West University: Potchefstroom Campus.

Ms. Y. NAIDOO

August 2017

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DEDICATION

I DEDICATE THIS STUDY TO:

- The memory of my dear father, who taught me that hard work, perseverance and responsibility achieves success, I will always treasure memories of you.
- My dearest partner for his patience, encouragement, commitment and unconditional love.
- My wonderful daughter for her understanding, support and assistance.

ABSTRACT

Key Concepts clinical learning environment, quality, nursing student, clinical supervision, registered nurse, clinical facilitator

This study investigated the quality of the clinical learning environments in the medical and surgical units of clinical placements used by a provincial college of nursing for student nurse training in South Africa. The purpose of the study was to describe the quality of the clinical learning environment of placement settings, as experienced by final year students from a provincial nursing college.

The researcher used a quantitative, descriptive, cross-sectional design. Purposive sampling was used to recruit research participants. Participants were final year undergraduate students of the Provincial College of Nursing. Informed, written consent was obtained. Ethical approval was obtained from the relevant authorities and the ethical committee of the North West University. Data was collected by using an internationally validated Clinical Learning Environment, Supervision and Nurse Teacher Instrument (Saarikoski & Leino-Kilpi, 2002:259-267; Saarikoski *et al.*, 2008:1233-1237).

The quantitative data showed that students are relatively satisfied with the quality of the clinical learning environment of their placement settings, the supervision they received and the role the nurse educator played in the clinical setting. The results showed that a little less than two thirds of students are satisfied with their clinical learning environment and just a little over half of students were satisfied with the supervision they received. However, the pedagogical atmosphere received the lowest evaluation. Interestingly, the most significant factors in the clinical learning environment, supervision and nurse teacher evaluation were the philosophical grounding of nursing care in the ward and the nurse educator enabling the integration of theory and practice. More support and commitment is also needed from the operational manager who is the main driver of the vehicle which is the clinical learning environment and who steers clinical teaching and learning forward. There was a significant positive correlation between philosophical grounding of nursing care in the ward and supervisory relationship.

The most common method of supervision was group supervision. Even though there was mutual interaction in the supervisory relationship, there is a need for staff to provide students with constructive feedback on their professional performance in order for them to improve on the areas identified in the clinical learning environment and thus improve the quality of patient care. There is a need for the nurse teachers to be more visible in the clinical learning environment in order to

provide additional support. Provision of a learner centred environment by nurse teachers and engagement of students as equal partners in the learning environment will enhance learning.

The open-ended questions revealed there were many challenges in the clinical learning environment. Thus, there is plenty of room for improvement in all aspects of the clinical learning environment by all stakeholders to promote quality clinical learning, quality of care and improved patient outcomes. There is also a need for a quality assurance program in nursing education to constantly monitor and evaluate the clinical learning environment in order to maintain high standards and quality clinical learning.

In conclusion, participants rated the quality of the clinical learning environment where they were placed for their medical and surgical nursing experience relatively low. Although there is a discrepancy between the qualitative rating of the quality of the clinical learning environments of these settings and the quantitative scoring thereof using the CLES-T instrument, both assessments are necessary to get the full picture. Using this approach will assist nurse educators to continuously assess the quality of the clinical learning environment of the settings where students are placed as to intervene when it becomes clear that a setting no longer complies to the requirements for effective clinical learning.

OPSOMMING

Sleutelbegrippe

kliniese leeromgewing, kwaliteit, verpleegstudent, kliniese supervisie, geregistreerde verpleegkundige, kliniese fasiliteerder

Die studie het die kwaliteit van die kliniese leeromgewings in die mediese- en chirurgiese eenhede van kliniese plasings deur 'n provinsiale verpleegkollege vir die opleiding van studente verpleërs in Suid-Afrika ondersoek. Die doel van die studie was om die kwaliteit van die kliniese leeromgewing van kliniese plasings te beskryf soos dit ervaar is deur finalejaarstudente uit 'n provinsiale verpleegkollege.

Die navorser het 'n kwantitatiewe, beskrywende, kruisseksie-ontwerp gebruik. 'n Doelgerigte steekproefmetode is gebruik om deelnemers te selekteer. Deelnemers was voorgraadse finalejaarstudente van die Provinsiale Kollege vir Verpleegkunde. Ingeligte, geskrewe toestemming is verkry. Etiese toestemming is van die relevante outoriteite en die etiese komitee van die Noord-Wes Universiteit verkry. Data is versamel deur gebruik te maak van 'n internasionaal geldig verklaarde kliniese leeromgewing, toesig en verpleegonderwys instrument (Saarikoski & Leino-Kilpi, 2002:259-267; Saarikoski *et al.*, 2008:1233-1237).

Die kwantitatiewe data het onthul dat studente relatief tevrede is met die kwaliteit van die kliniese leeromgewing, supervisie wat hul ontvang en die rol van die verpleegkundige opvoeder in die kliniese omgewing waar hul geplaas was. Die resultate het gewys dat bietjie minder as twee derdes van die studente tevrede is met hul kliniese leeromgewing, en 'n bietjie meer as die helfte van die studente tevrede is met die toesig wat hulle ontvang. Die pedagogiese atmosfeer het egter die laagste evaluasie ontvang. Dit is interessant om te merk die mees noemenswaardige faktore in die kliniese leeromgewing, supervisie en verpleegkundige opvoeder evaluasie, was filosofiese stabiliteit van verpleegsorg in die saal en die wyse waarop die verpleegkundige opvoeder integrasie van teorie en praktyk toegelaat het. Groter ondersteuning en toewyding is nodig van die operasionele bestuurder wat die hoof dryfkrag is van die voertuig (kliniese leeromgewing), en wat kliniese leer en onderwys in die toekoms stuur. Daar was 'n noemenswaardige positiewe korrelasie tussen filosofiese stabiliteit van verpleegsorg in die saal en toesighoudende verhouding.

Die mees algemene metode van supervisie was groepsupervisie. Selfs al was daar wedersydse interaksie in die toesighoudende verhouding, is daar 'n behoefte dat personeel konstruktiewe terugvoer aan studente gee oor hul professionele optrede. Sodoende kan studente verbeterings doen in die aangespreekte kliniese leeromgewings en dienoooreenkomstig die kwaliteit van

pasiëntesorg verbeter. Daar is 'n behoefte dat verpleegkundige opvoeders meer sigbaar is in die kliniese leeromgewing en sodoende bykomende ondersteuning bied. Die daarstelling van 'n leerder gesentreerde omgewing deur verpleegkundige opvoeders en skakeling met studente as gelyke vennote in die leeromgewing sal leer bevorder. Die ope vrae het onthul dat daar baie uitdagings in die kliniese leeromgewing is. Daar is dus ruimte vir verbetering in alle aspekte van die kliniese leeromgewing deur alle belanghebbendes om die kwaliteit van die kliniese leeromgewing, sorg en pasiënt uitkoms te bevorder. Daar is ook 'n behoefte aan 'n kwaliteitversekeringsprogram in verpleegopvoedkunde om konstante monitering en evaluering van die kliniese leeromgewing te verseker en dienooreenkomstig hoë standaarde en kwaliteit kliniese leer te handhaaf.

Ten slotte het deelnemers die kwaliteit van die kliniese leeromgewing waar hulle geplaas is vir hul mediese en chirurgiese ondervinding relatief laag geëvalueer. Hoewel daar 'n teenstrydigheid is in die kwalitatiewe evaluering van die kliniese leeromgewings en die kwantitatiewe evaluering daarvan deur die CLES-T instrument, is albei nodig om die volle omvang van die situasie te begryp. Deur dié benadering sal verpleegkundige opvoeders ondersteun word om deurlopend die kwaliteit van die kliniese leeromgewing waar studente geplaas is te bepaal, en om in te gryp wanneer dit duidelik is dat 'n omgewing nie meer aan die vereistes vir effektiewe kliniese leer voldoen nie.

LIST OF ABBREVIATIONS

AIDS	Acquired immune deficiency syndrome
ANOVA	Analysis of variance
CEU	Clinical education unit
CHE	Council for Higher Education
CLE	Clinical Learning Environment
CLEI	Clinical Learning Environment Inventory
CLES-T	Clinical Learning Environment, Supervision and Nurse Teacher Scale
CPD	Continuous Professional Development
DEU	Dedicated education unit
DOH	Department of Health
EAP	Employee assisted program
HIV	Human immunodeficiency virus
IBM SPSS	Statistical package for Social Science (Software package used for statistical analysis which was acquired by the company IBM in 2009)
INSINQ	Research focus area Quality in Nursing and Midwifery within the Faculty of Health Sciences of the North-West University
KMO	Kaiser- Meyer-Olkin
N	Target population for the research study
n	Actual population participating in the research study
MDR TB	Multi drug resistance tuberculosis
NCD	Non-communicable diseases
NCS	National Core Standards
NHI	National Health Insurance

OM	Operational Manager
OSD	Occupation Specific Dispensation
PHC	Primary health care
PPE	Positive Practice Environment
QCLE	Quality of the clinical learning environment
RN	Registered nurse
SA	South Africa
SANC	South African Nursing Council
TB	Tuberculosis
WHO	World Health Organization
WIL	Work Integrated Learning
XDR TB	Extreme drug resistance tuberculosis

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CHAPTER 1 OVERVIEW OF THE STUDY

1.1 Introduction

Nursing education in South Africa faces enormous challenges. One of these challenges is possibly the poor quality of clinical practice that translates into a poor quality of the clinical learning environment of healthcare facilities where nursing students are placed for their prescribed workplace learning (workplace-integrated learning [WIL]).

The aim of this study was to describe the quality of the clinical learning environment of facilities where students of a provincial nursing college in South Africa are placed. Clinical placement of students in different clinical areas is a compulsory pre-registration requirement by the national regulatory body, the South African Nursing Council (SANC) (SANC, 1985). The measures laid down by the South African Nursing Council, on exposure of undergraduate nursing students in specified clinical areas, form the basis of an essential standard for quality nursing education to ensure that the new practitioners are skilled and knowledgeable, so as to safeguard and protect the public against incompetent professional nurses. Prescribing a minimum number of clinical hours for the four-year undergraduate programme is much debated, as new graduates, although they meet the prescribed hours in practice and are declared competent, are often not seen to be competent, especially with regard to critical, analytical thinking and problem-solving skills, which are essential for fulfilling the professional role (Nurse Educators Association, 2013).

In this chapter, the background and rationale for the study is outlined, the research question is formulated as are the aim and objectives of the study. The research method and procedure are described, the measures to ensure rigour and ethical research are presented and the format of the structure for the study is outlined.

1.2 Background and Problem Statement

The researcher is concerned about the impact of the quality of the clinical learning environments of placement settings for students, and eventually on the overall impact this has on the competency/safety of registered nurses and midwives in the country as well as the overall impact this has on quality of nursing care and patient outcomes. Given the challenges in the clinical learning environment and the possible impact they have on students' learning, it is the responsibility of institutions of higher education and nursing colleges to continuously monitor and evaluate the quality of the clinical learning environment of facilities where students are placed for work-integrated practice learning (Council for Higher Education (CHE), 2011)

In this regard, it is encouraging to see the emphasis that the Strategic Plan for Nursing Education, Training and Practice, 2012/13-2016/17 (South Africa (SA), 2013) puts on the importance of positive practice environments (PPE). A positive practice environment is essential for learning to take place. This plan entails a structured roll out and monitoring plan on PPE, developed in conjunction with the proposed Office of Standards Compliance (National Health Amendment Act, 12 of 2013); a framework to recognize postgraduate qualifications in nursing and midwifery, and a Continuing professional development (CPD) system for nurses and midwives developed and ready for implementation.

The Office of Standards Compliance is established in terms of the National Health Amendment Act, (12 of 2013:6) and consists of a board of 7-12 experts from various disciplines. It is tasked with inspecting health establishments to see if they are compliant with norms and standards, monitoring indicators of risk and recommending quality assurance to the Minister of Health for approval. In addition, the PPE standards were to be incorporated into the National Core Standards (NCS) (Department of Health,2011) project managed by the Office of Health Standards Compliance. It is intended that these measures, in particular, would have a positive impact on the quality of the clinical learning environment of facilities where students are placed.

1.3 Research problem

Most of student learning takes place in the clinical environment where they are placed. Although much has been speculated about the impact of poor quality nursing and poor-quality health service delivery on student learning in the clinical environment, little is known about the quality of the clinical learning environment of placement settings used by this specific provincial nursing college.

The clinical learning environment is rich in learning opportunities, which benefit nursing students' learning especially if there is adequate clinical supervision by critical role-players such as the professional nurse, nurse educator and clinical facilitator. The quality of the clinical learning environment and of clinical supervision significantly affects learning outcomes and has major implications for safety, clinical competence and quality of nursing care. If institutions of nursing education can identify the areas of concern in the clinical learning environment, educators, managers and professional nurses can work together and find ways to improve on them and in turn improve the learning of students and in the end the quality of nursing care.

Proper leadership, ownership for clinical learning, effective supportive systems and efficient communication and interaction by all critical role-players will enhance the clinical learning environment significantly, and will provide effective direction for nursing students towards professionalism. Determining students' perceptions of the quality of the clinical learning

environments where they were placed, the ward atmosphere, the leadership style of the unit/ward manager, the philosophy of nursing in the units/wards, premises of learning in the ward and the supervisory relationship will assist in determining their satisfaction with the clinical learning environment, and indirectly reflect the quality of the clinical learning environment and supervision, and will assist in developing strategies to narrow the theory-practice gap. In spite of their vulnerability, students are the only people who can provide first-hand experience on the quality of the clinical learning environment of these settings after the end of their third year, because third year students have completed their experiential learning in the medical and surgical units at the end of the third year and have sufficient exposure, experience and maturity by this time to evaluate their teaching and learning experiences in these units.

The question thus arises: **What is the quality of the clinical learning environment in medical and surgical units used for the provincial nursing college student placement?**

1.4 Purpose of the Study

The purpose of the study was to describe the quality of the clinical learning environment of placement settings as perceived by students from a specific provincial nursing college.

1.5 Theoretical Framework

The theoretical framework for this study was grounded on research into clinical teaching and learning over the past 15 years, from 2000-2015, and involves classical studies such as that of Saarikoski (Saarikoski, 2002:259-267; Saarikoski *et al.*, 2008:259-267). The Clinical Learning Environment Supervision and Nurse Educator (CLES-T) evaluation scale provides the operational framework for the study. The CLES-T scale is based on results obtained from a number of empirical studies (n=87), audit instruments (n=6) and systematic literature reviews (n=5) published during 1980-2006.

The first empirical studies were done in the 1980s, in the United Kingdom, using classical studies, and highlighted the importance of effective unit/ward management and a positive ward atmosphere. The second area was the supervisory relationship transition from group to individualized supervision. The individual relationship was considered pivotal in clinical instruction and supervision provided by nursing staff.

At an international level, there were discrepancies in the use of the concepts mentor and preceptor (Saarikoski *et al.*, 2005:1-16). In his earlier work, Saarikoski (2002:259-267) described a change in the roles of the unit/ward manager and nurse educator. The unit/ward manager became less involved with clinical supervision and teaching of students in the unit/ward, whereas

staff nurses gained momentum in this regard, but ward managers still had a significant impact on creating a positive unit/ward atmosphere and optimal learning environment. The nurse educator's role changed from that of being a clinical specialist that is responsible for correlating theory with practice and liaising between college and service (Saarikoski, 2002:259-267) to an academic expert who is able to provide a theoretical perspective on clinical situations and also promotes a research-based culture in the provision of health care services (Saarikoski *et al.*, 2013:81). These changes in the roles of unit managers and nurse educators are evident in South Africa too.

1.5.1 Conceptual Definitions

Firstly, general concepts are explained and then the concepts directly related to the theoretical framework of the study.

1.5.1.1 Clinical learning environment (CLE)

Refers to the practice area where health care service is being provided and where students are allocated for clinical exposure, in order to develop clinical skills and professional practice (Clare *et al.*, 2003: 14). In this study, the concept clinical learning environment refers to the wards in a provincial hospital. It is multi-dimensional and includes the physical, social, psychological and cultural aspects of the clinical learning environment, and is constituted by the pedagogical atmosphere in the unit, the leadership style of the unit manager, the philosophy (premises) on which of the unit's nursing care is based, the supervisory relationships and the role of the nurse educator in the clinical learning environment.

1.5.1.2 Quality

Refers to a measure of excellence, a state of being free from deficiencies and significant variations (Pocket Oxford dictionary, 2007:729). The clinical learning environment needs to establish, maintain and improve clinical standards in order to enhance student learning opportunities and clinical experience.

1.5.1.3 Nursing student

This refers to a person who is studying nursing at a college or university. In this study, student nurses refer to nursing students, according to the Nursing Act 33 of 2005 (SANC, 2005), who are in their fourth year of study undertaking the 4-year diploma, which is the programme leading to registration as a nurse (general, psychiatric and community) and midwife (SANC, R425, 1985). The student within the context of this study is allocated to a provincial hospital for clinical learning experience as a voluntary participant.

1.5.1.4 Clinical supervision

Includes elements of practical teaching, assessing, supporting and facilitating students' learning (Saarikoski, 2002:259-267). In this study, supervision of nursing students is done primarily by clinical facilitators, nurse educators and registered nurses.

1.5.1.5 Registered nurse

Refers to a qualified person who is competent and authorized to practice comprehensive nursing independently in the manner and to the level prescribed, and who is accountable and responsible for such practice (SANC, 2005:17). In this study, registered nurses supervise, support, mentor, coach and provide learning opportunities for student nurses.

1.5.1.6 Nurse educator

A nurse educator is a person who holds a qualification in nursing education and is responsible for theoretical training and clinical accompaniment of students (Masakona, 2013:10). A nurse educator's accompaniment provides the opportunity to assist students to bridge the theory-practice gap (Saarikoski, 2002:256).

1.5.1.7 Clinical facilitator/preceptor

Refers to a registered nurse who holds a qualification in nursing education and is employed by a nursing college. She is responsible for the clinical component of nursing programmes by teaching, supervising, guiding, supporting and evaluating students in the clinical area (Dickson *et al.*, 2006:417). She/he also assists with clinical placement of students. In this study, the clinical facilitator is also referred to as a nurse educator, nurse teacher or clinical educator, as they are called overseas by different interchangeable names.

This study is based on the model of the clinical learning environment and supervision (Saarikoski, 2002) and highlights core components critical to maximise quality learning and supervision in the clinical learning environment.

In the following subparagraphs the concepts related to the clinical learning environment are described.

1.5.2 Clinical Learning Environment (CLE)

The quality of the clinical learning environment (CLE) being of paramount importance for student learning in clinical practice is supported by the work of Saarikoski (2002:259-267) and Chan (2002:69-75) in maximising student learning.

The clinical learning environment (CLE) is a multidimensional environment with a complex social context (D'Souza *et al.*, 2013:25). It provides learning experiences where theory and practice can be integrated, competencies are developed, students can practice critical thinking, leadership and communication skills and professionalism is practiced and developed. This thorough grounding in practice is essential for students to become safe, competent, professional nurses and midwives, who are capable of meeting the population's health needs.

The research of Saarikoski (2002:259-267), Chan (2002:69-75), and Papp *et al.* (2003:262) identified a number of factors in the clinical learning environment (CLE) that influence student learning. These factors are the philosophy and quality of nursing care, the presence of other health professionals and students, the nature of the clinical setting itself, patients, clinical facilitators and equipment.

Studies in the field of clinical learning, or work-integrated learning, primarily consist of studies on the students' experiences during placement and the challenges that they face (Chuan *et al.*, 2012:192; Warne *et al.*, 2010:809-815; Saarikoski & Leino-Kilpi, 2002:259). These studies are grounded in the assumption that the experiences of students in the clinical learning environment are a reflection of satisfaction with the experience, and are a reflection of the quality of the clinical learning where they were placed.

Some studies have shown that students who participated in their studies reported to be satisfied with the learning environment of settings where they were placed (Chuan *et al.*, 2012:192; Warne *et al.*, 2010:809-815; Saarikoski & Leino-Kilpi, 2002:259). In contrast to these findings, there are also studies reporting that many students experience high levels of anxiety and stress during their clinical placement/workplace learning period (Killam & Heerschap, 2012:684), that they are often confronted with unwelcoming, unsupportive, unhelpful and intimidating staff resulting in physical symptoms of anxiety, fearfulness and decreased confidence (O'Mara *et al.*, 2014:208). In a South

African study, Mothiba *et al.* (2012:195-204) reported that the participants expressed confusion because of the differences in what they learn in theory and what they learn in practice. There was also incongruence in the teaching of clinical procedures by college and ward staff. In the workplace, students often struggle with relationships, particularly with clinical faculty and staff nurses (Henderson *et al.*, 2012:299). Students who are learning-orientated reported to be dissatisfied with placements and described them as inadequate, with few learning situations and a lack of active participation (Bisholt *et al.*, 2013:1-7).

Saarikoski (2002:259-267) and Chan (2002:69-75) are convinced that the quality of the clinical learning environment (CLE) is of paramount importance for student learning in clinical practice in supporting the integration of theory and practice. A variety of quantitative studies (Bergjan & Hertel, 2013:1393; Carlson & Idvall, 2014:1532; Saarikoski *et al.*, 2008:1233; Saarikoski & Leino-Kilpi, 2002:259; Watson *et al.*, 2014:164), qualitative studies (O'Mara *et al.*, 2014:208; Killam & Heerschap, 2012:684) and mixed method studies (Courtney-Pratt *et al.*, 2012:1380; Sundler *et al.*, 2014:661) have been published on the quality of the clinical learning environment. These studies led to the development of various instruments to measure the clinical learning environment characteristics and quality (Alhaqwi *et al.*, 2014:44; Chan, 2002:69; Chuan *et al.*, 2012:192; Saarikoski *et al.*, 2008:1233; Saarikoski & Leino-Kilpi, 2002:259; Sand-Jecklin, 2009:232). Of these instruments, developed to determine the quality of the clinical environment, the most referenced instruments are the Clinical Learning Environment, Supervision and Nurse Teacher Scale, CLES-T of Saarikoski and Leino-Kilpi (2002:259) and Saarikoski *et al.* (2008:1233), and the Clinical Learning Environment Inventory (CLEI) developed by Chan (2002:69).

The CLES-T scale of Saarikoski *et al.* (2008:1233) has been used in several international studies in Finland, Sweden, England, Belgium, Ireland, Italy, Netherlands, Spain, Cyprus, Germany and New Zealand (Warne *et al.*, 2010:809; Bergjan & Hertel, 2013:1393; Watson *et al.*, 2014:164-180). The CLES-T combines the clinical learning environment and supervision in a 34-item scale and measures the following constructs: pedagogical atmosphere in the unit, leadership style of the unit manager, premises of the unit's nursing care, supervisory relationships and role of the nurse educator. These variables are discussed below.

1.5.3 Supervisory relationship in the clinical learning environment

The supervisory relationship is a crucial factor in a student's clinical experience (Saarikoski *et al.*, 2008:1233) and it is now known that learning is influenced by the quality of supervision and feedback (Alhaqwi *et al.*, 2014:44). The aim of supervision of students in practice is to help the novice student to improve his/her competencies and obtain job satisfaction, so that the ultimate goal of maintaining quality care is achieved (Mabuda, 2006:31) as students develop towards

expertise. The lack of supervision during students' clinical placement may result in the loss of learning opportunities and poor learning outcomes. Teaching and supervision is one of the functions of a registered nurse (SANC, 1992), yet many registered nurses struggle to meet this obligation as they are already overloaded with patient care, which takes priority over student supervision and education (Rikhotso, 2010:2).

Over and above poor or little supervision, the relationships within the clinical learning environment are fundamental to student learning (Chesser-Symth, 2005:320). The study of O'Mara *et al.* (2014: 208) indicates that the unwelcoming attitudes of nursing staff affects the quality of supervision as student participants in their study reported that the nursing staff are unfriendly and that they do not want to work with them. On the other hand, both Chuan *et al.* (2012:192) and Rikhotso (2010:41) argued that negative student attitudes affect supervision, with the result that nursing staff do not want to supervise them.

Another challenge is that as students' progress with their studies, the level of supervision should decrease, allowing for increasing independence towards graduation. This, however, may not happen in situations where students are expected to observe or perform non-nursing and few patient care tasks, thus not participating actively in-patient care (Bisholt *et al.*, 2013: 1-7). Often too, the staff do not assist students to correlate theory with practice appropriate to students' levels, again hindering the learning process.

1.5.4 Role of the nurse educator or clinical facilitator in the clinical learning environment

The value of the nurse, the clinical facilitator and the midwifery educator in facilitating clinical learning have been illuminated in many studies (Courtney-Pratt *et al.*, 2012:1380; Perli & Brugnolli, 2009:886; Saarikoski *et al.*, 2008:1233; Smedley & Morey, 2009:75). A number of studies showed that the addition of the nurse educator to support clinical learning, as a result of poor involvement by professional nurses in clinical nursing education of nursing students, benefitted the participants' learning (Perli & Brugnolli, 2009:886; Courtney-Pratt *et al.*, 2012:1380; Salamanson *et al.*, 2011:2668). Brown *et al.* (2013:510) are of the opinion that the nurse educator and clinical facilitator can create, foster, nurture and maintain a positive learning environment.

The role of the clinical facilitator or nurse educator in practice is extensive and includes teaching, guiding, supervising, assessing, evaluating, providing feedback to students, planning clinical placement of students, developing and reviewing clinical assessment tools, as well as arranging meetings between the college and the health service. However, a lack of clinical expertise (O'Mara *et al.*, 2014:208), subjectivity in evaluation, inconsistencies between clinical facilitators and negative teaching strategies (Killam & Heerschap, 2012:684) can hamper student learning.

At the same time, the nurse educators who participated in Sharif and Masoumi's study reported that they spend too much time on assessment rather than working with the students to model the way (Sharif & Masoumi, 2005:1-7). The findings of the study by Smedley and Morey (2010:87) highlighted the need for re-examination of the role and preparation of nurse educators and preceptors, or clinical facilitators, in order to improve clinical teaching strategies. Similar work has been done by the World Health Organisation (WHO) to analyse and recommend the competencies of midwife educators (WHO, 2013).

In an effort to find evidence to support these assertions, Brown *et al.* (2013:510) developed an instrument to evaluate the performance of the nurse educator and the effectiveness of clinical teaching and confirmed that clinical educators might be a significant contributory factor towards student skill development and practitioner success.

1.5.4.1 Co-operation between staff who do the placement and nurse educator

A study by Rikhotso (2010:40) indicated a lack of communication between the college and the hospital. There is a lack of collaboration and clarification of roles and responsibilities of the stakeholders regarding the management and implementation of the nursing students' clinical exposure and learning. In addition, the study by O'Mara *et al.* (2014:208) indicated that nurse educators lacked credibility in bedside nursing because of a lack of clinical expertise. Further, the study also found evidence of fairly dysfunctional relationships with nurses in the unit, with the result that they were not respected. These factors widen the theory-practice gap and significantly affect the quality of clinical learning.

1.5.4.2 Nurse educator's role in facilitating the integration of theory and practice

The theory-practice gap in nursing seems to be a worldwide concern and is extensively reported in the literature (Rikhotso, 2010:49; Corlett, 2000:499; Wall *et al.*, 2014:127). The effectiveness of clinical facilitation has been identified as an important determinant of quality learning in the clinical setting (Salamanson *et al.*, 2011:2668). Mabuda's (2006:3) study revealed that student experiences were characterized by a lack of clinical teaching and learning support and poor integration of theory and practice. The study by Rikhotso (2010:38) found that participants in his study reported that the nurse educators are hardly available, have too many students and believe that evaluation of students is their main function. As a result, students are working with little or poor supervision and guidance, as the registered nurses in the units are busy with patient care and believe that clinical teaching is the duty of the nurse educator. Killam and Heerschap (2012:684) supported this finding and added that over and above a lack of time, dismissive attitudes of educators and/or poor support might have detrimental effects on learning. Thus, there appears to be a shifting of responsibility by both the clinical staff and the nurse educator in clinical teaching, each expecting the other to fulfil this function and nobody assuming leadership or ownership for clinical learning.

1.5.4.3 Relationship among student, mentor and nurse educator

According to O'Mara *et al.* (2014:208), clinical learning is always influenced by relationships in context. Unfortunately, Killam and Heerschap (2012:684) reported feelings of isolation and intimidation due to the poor relationship with the nurse educator, staff nurses and other students. Excessive strictness, favouritism, humiliation, and demeaning or degrading behaviour towards students might lead to these feelings. Students are often not supported during clinical placement (O'Mara *et al.*, 2014:208) and, in particular, participants in their study reported that nurse educators or mentors (similar to preceptors) are sometimes over-critical and have poor communication skills, resulting in students being afraid to ask questions, which, in turn, impacts negatively on learning and student performance.

1.5.5 Pedagogical atmosphere in the ward and the clinical learning environment

A welcoming clinical environment is instrumental to learning (Henderson *et al.*, 2012:299), whilst a positive ward atmosphere towards student learning promotes clinical learning. At the same time, it has been shown that stress and fatigue among staff negatively affect student learning (Bisholt *et al.*, 2013:1-7). O'Mara's study indicated that from the staff's side a lack of inter-professional teamwork, lack of familiarity with programme expectations and lack of support, without any doubt, negatively impact on students' clinical learning (O'Mara *et al.*, 2014:208). Even worse is that the often rigid, ritualistic, task oriented culture of nursing does not encourage critical thinking and problem solving (Henderson *et al.*, 2012:299). Various studies in the past reported that a hospital is a better learning environment, and provides more meaningful and multi-dimensional learning experience, than any other setting (Bisholt *et al.*, 2013:1-7; Murphy *et al.*, 2012:170; Skaalvik *et al.*, 2011:2294). The unit/ward manager is a central figure in the clinical learning environment and the key to establishing a ward atmosphere that encourages students to ask questions and practice their skills (Saarikoski *et al.*, 2001:341).

1.5.6 Leadership style of the unit manager and premises of nursing on the ward

It is the leadership style of the ward manager and the quality of care that form the basis of a good learning environment (Papp *et al.*, 2003:262; Saarikoski & Leino-Kilpi, 2002:259). Although the role of the ward manager is less concerned with direct clinical teaching, s/he is crucial in the process to facilitate quality nursing in the ward (Saarikoski & Leino-Kilpi, 2002:259). Leadership style may differ between unit managers (Bisholt *et al.*, 2013:1-7). Muldowney and McKee (2011:201) revealed that a leadership style that encourages hierarchy and rituals hinders clinical learning, as opposed to unit managers whose leadership style is more supportive of student learning and promote active participation in the care of patients, motivate and foster student learning. In the study of Skaalvik (2011:2294), student participants viewed a positive clinical

learning environment as when the unit/ward manager appreciates the staff's efforts, regards staff as a key resource in patient care, gives useful feedback and is one of the team.

This study is based on the model of the clinical learning environment and supervision (Saarikoski, 2002) and highlights core components critical to maximise quality learning and supervision in the clinical learning environment.

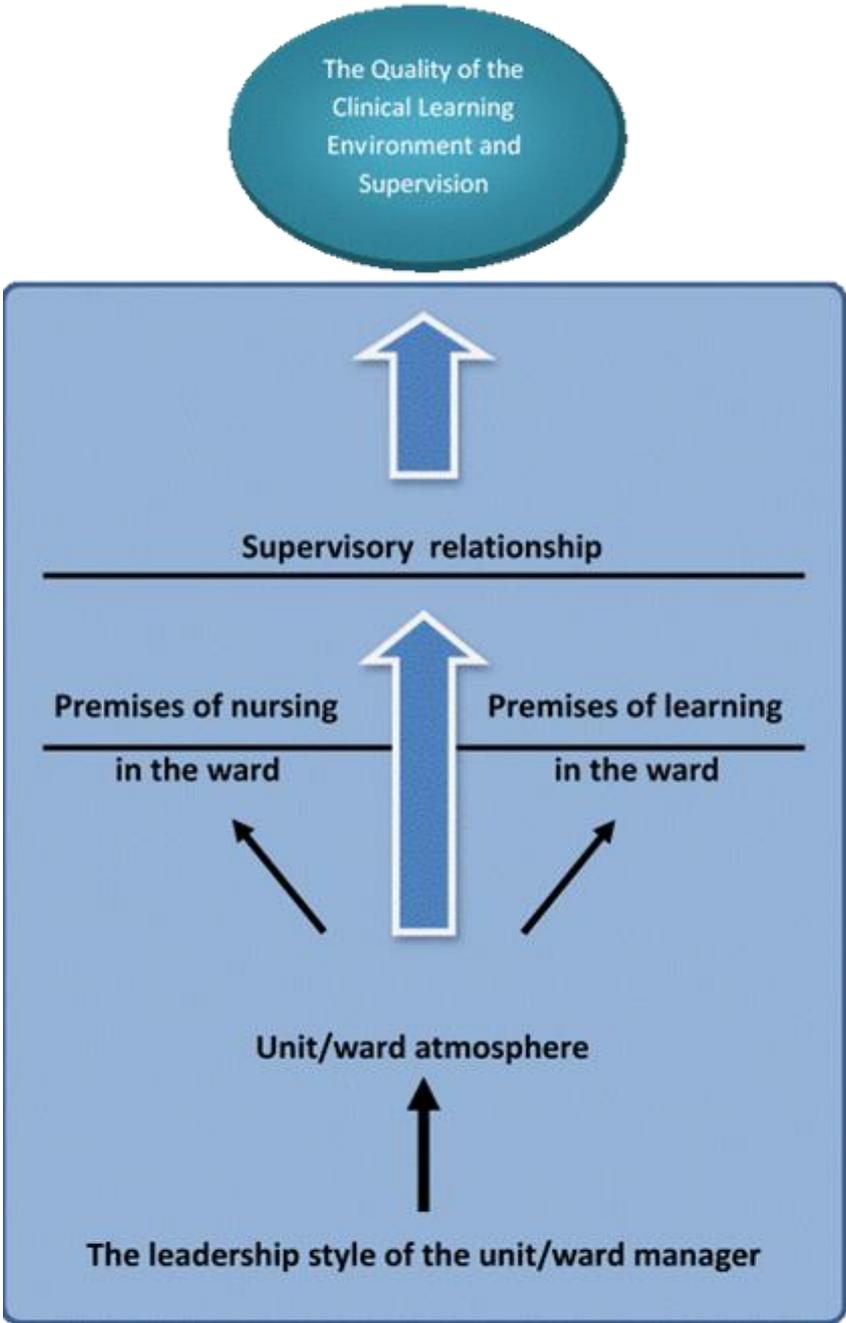


Figure 1.1: Preliminary model of the clinical learning environment and supervision by staff nurses (Saarikoski, 2002)

1.6 Research Approach

To reach the aim of this study, the researcher used a survey instrument, the Quality of the Clinical Learning Environment, Supervision and Nurse Educator (CLES-T) evaluation scale (Saarikoski 2002) that is quantitative and descriptive in nature. Similar to previous studies using the same instrument, this study followed a cross-sectional design to obtain a once-off rating by fourth year students of the quality of the clinical learning environment of the settings where they were placed. The motive for using this approach was to describe the quality of the clinical learning environments of the settings where these specific nursing college students were placed for service learning.

1.7 Research Setting

The nursing college used in this study is situated in one of the nine provinces of the country. The province chosen as research setting is characterized by high mortality and morbidity figures for all age groups (explained below) (Bradshaw et al, 2006:1-16). The nursing college comprises 11 campuses. The unit of analysis for the study was fourth year nursing students, who completed their general nursing education component at the end of their third year and were placed in medical and surgical units (explained below). Each campus listed below used a different health institution to place students for practica. Four campuses were selected for this study and provided sufficient participants, based on the power calculation by the statistician, which was a sample of 200 participants. The research student was a clinical facilitator for students from the fifth campus, which was excluded on this basis.

1.8 Research Method

1.8.1 Population and sample

The decision to do the study in a particular province was both for practical reasons, as the researcher works in this province.

Medical units were selected based on where the high disease burden patients, namely Tuberculosis/Human immuno-deficiency virus (TB/HIV) and non-communicable diseases such as diabetes mellitus (DM) and stroke/CVA (cerebrovascular accident) were admitted. Surgical units were also selected against the same background, for example, amputations due to uncontrolled diabetes, and injuries (gunshots, stab wounds, assault etc.) due to the high burden of violence and other injuries.

The College of Nursing where this study was done consists of 11 campuses in the province, with 442 fourth-year students in total. The accessible population for this study was fourth year nursing students registered at the provincial College of Nursing in the programme leading to registration as a general nurse (Psychiatry and community) and midwife (SANC, 1985), and who had completed their clinical placements in medical and surgical units. Fourth year students were targeted because first, second and third year students have not completed their placement in medical and surgical units and were therefore unable to provide sufficient response regarding the quality of the clinical learning experience in these units.

The study was piloted at one of the campuses, where the researcher worked (Campus G). She was not in contact with students from the other campuses. Coercion in consenting to participate in the study was prevented this way.

The total number of fourth year students in 2016 was 442. The distribution of fourth year students for the four-year nursing programme in the province in 2016 was as follows.

Campus A	N = 54
Campus B	N =30
Campus C	N =43
Campus D	N =71
Campus E	N =10
Campus F	N =56
Campus G	N =47
Campus H	N =73
Campus I	N =36
Campus J	N =22

Based on a power analysis and the advice of the statistician, 200 fourth-year students from four campuses were recruited to participate in the study. The questionnaires were completed at the college during a block.

A research assistant who held a master's degree in nursing was responsible for recruitment at all the campuses. She approached the fourth-year students of the four college campuses during their

blocks to inform them about the study and invited them to participate, while emphasizing that participation was voluntary.

Given that this way of sampling was purposive, it helped to get more participants from all four campuses. During these sessions, the possible risks and benefits of the study and the participants' right to anonymity and confidentiality were explained. Further, voluntarily informed participation in the study and their right to withdraw at any stage, without being penalised in any manner, were emphasised. Students who volunteered to participate in the study were then requested to meet as a group with the mediator, at a time and place that would suit them. This gave them some time to think about participating in the study.

The **exclusion** and **inclusion criteria** for the study were as follows:

Inclusion criteria:

1. Students registered at the Provincial College of Nursing for their fourth year of study in the R425 programme (SANC, 1985) leading to registration as a general nurse (community and psychiatry) and midwife
2. Informed voluntary consent

Exclusion criteria:

1. First, second and third year students of the R425 programme leading to registration as a general nurse (community and psychiatry) and midwife
2. Students from the Campus (G) where the researcher works

1.8.2 Data collection instrumentation

The research instrument used in this study was the Clinical Learning Environment, Supervision and Nurse Teacher Evaluation Scale (CLES-T) developed by Saarikoski and Leino-Kilpi (2002). It is a validated research instrument and is considered the gold standard to evaluate both the quality and the climate of the clinical learning environment (Magnani *et al.*, 2014:55-61).

Permission was obtained from Saarikoski to use the scale (Annexure G).

1.8.2.1 Content of the survey instrument

The evaluation scale consists of 34 items, each scored on a five-step Likert scale in terms of each statement: (1) fully disagree (2) disagree to some extent (3) neither agree nor disagree (4) agree to some extent (5) fully agree (Saarikoski *et al.*, 2008). The survey instrument measures five sub-dimensions: Pedagogical atmosphere on the ward (9 items), supervisory relationship (8 items), leadership style of the ward manager (4 items), premises of nursing (4 items), and role of the nurse teacher (9 items).

1.8.2.2 Psychometric properties

Saarikoski *et al.* (2005:1-16) demonstrated the construct validity of the instrument in a Finnish study (n=549) by using factor analysis. Consistency and reliability of each sub-dimension of the instrument was analysed using Cronbach's alpha coefficient. Student satisfaction with the placement was considered in the context of various background variables using analysis of variance (ANOVA) (Saarikoski, 2002:259-267). Concurrent validity was tested using correlation and canonical correlation tests (Saarikoski *et al.*, 2005:1-16).

In the original validation of the instrument, Cronbach's alpha values of the constructs of the instrument ranged from high (0.96) to marginal (0.77). In the study done by Saarikoski *et al.* (2005:1-16) in 2004-2005, the Cronbach alpha was used as a measure of the internal consistency. Of the sub-dimensions of the CLES-T, the alpha scores ranged from 0.73 to 0.95. The instrument also had adequate test-retest reliability and internal validity. In the sample (n=1 903) of the study conducted in nine European countries by Warne *et al.* (2010:809-815), the reliability coefficients of the sub-dimensions varied between 0.96 and 0.83.

The CLES-T instrument has been used by many researchers in different countries and languages since 2006 (Warne *et al.*, 2010:809; Bergjan & Hertel, 2013:1393; Watson *et al.*, 2014:164-180; Bos *et al.*, 2011). The study of Bos *et al.* (2011), for example, validated the Swedish version of the CLES-T instrument and found, with a confirmatory factor analysis, a strong correlation between supervisory relationship and premises of nursing ($r = 0.69$) and between supervisory relationship and pedagogical atmosphere ($r = 0.83$), a moderate correlation between supervisory relationship and leadership style ($r = 0.48$) and the role of the nurse educator ($r = 0.6$).

1.8.3 Pilot study

The researcher conducted a pilot study with ten fourth year students from the campus where she worked, as these students were not included in the study. The mediator first explained the study and the need for piloting the process. Then she explained the requirements, their role in the pilot process and the informed consent. They were then requested to complete the survey instrument. After they completed the survey instrument the mediator reflected with them on their understanding of the cover letter's information on the study, possible risks and benefits of participation, their anonymity and confidentiality, and their right to withdraw from the study. Time to complete the survey instrument and unclear item terms used with which they are not familiar, were also discussed. Finally, they were asked if there was anything else they thought should have been included to reach the aim of the study. Minor adaptation of the instrument to fit the South African context was finalised after the pilot study before data collection.

1.8.4 Data collection procedure

The venue at each of the four campuses to complete the questionnaires was negotiated with the volunteers. The research assistant made sure that it was a quiet room, free of disturbances.

After the participants signed the informed consent forms and they were sealed in a package in front of them, the mediator distributed the questionnaires and again explained that they were free to withdraw any stage.

The time frame for completion of the questionnaires was 10 to 20 minutes. Completed questionnaires were collected and put in an envelope that was sealed as soon as all questionnaires were returned.

The mediator observed the participants, both during the filling in of the questionnaire and after, for any sign of distress to enable her to see who she needed to take to the Campus Councillor. No sign of distress was observed with any of the participants both during the filling in of the questionnaire and after filling it.

1.9 Data Analysis

Descriptive statistics (frequency, mean, standard deviation, skewness and kurtosis) were calculated (Saarikoski *et al.*, 2005:1-16), with an alpha-level set at 0.05. A statistician was consulted to assist with data analysis for this study. In previous studies, correlation between sub-dimensions of the CLES-T instrument were analysed using Pearson's correlation tests (Saarikoski, 2002:259-267), and this was repeated in this study.

1.10 Ethical Considerations

The ethical guidelines of the South African Department of Health (SA DOH, 2015:14-17) were used to ensure that this study was ethically conducted to the end. The researcher committed herself to protect the participants by complying to the principles of beneficence and non-maleficence, equality and respect for persons.

1.10.1 Relevance and value

Learning in practice contributes, to a great extent, to the overall learning, bridging the theory-practice gap, and to students' professional socialization. The study aimed to describe the quality of the clinical learning environments of the medical and surgical units where students were placed in the third year of their training. The findings of the study will be sent to the provincial Nursing College Head for future planning and improving the quality of the students' learning experience.

If any other issues of ethical nature had arisen, the study would have been stopped immediately and reported to the Ethics Committee of North West University.

All raw data was stored at the facility provided by the campus of the College of Nursing, and will be kept in a double-secured space for 7 years, where after it will be destroyed as prescribed by the North-West University.

1.10.2 Scientific integrity

The study was approved by the:

- Health Research Ethics Committee of the Faculty of Health Sciences, North-West University (Annexure A)
- Scientific Committee of INSINQ (Annexure B)
- Provincial Department of Health (Annexure C)
- Public College of nursing (Annexure D)
- Campuses where the data was collected (Annexures Annexure E1, Annexure E2, Annexure E3 and Annexure E4)

A standardized survey instrument was used, with the consent of the developer of the instrument (Annexure H) to collect data in a similar way to the previous studies where this specific instrument was used.

1.10.3 Fair selection

All fourth-year students from the four selected campuses were invited to participate in the study (Annexure F). All students, therefore, had a fair chance to participate in the study. Students in their first to third years, who at that point had not completed their placements in medical/surgical nursing units, were excluded from the study. Students who chose not to participate in the study were not penalized in any way.

The researcher is a clinical facilitator at one of the College's campuses and as her presence during the recruitment, consent and administration of the survey instruments could have been experienced as threatening or even an effort to coerce students into consenting to participate in the study, an independent research assistant with research experience, obtained consent, recruited participants, explained the voluntary, informed consent and distributed and collected the survey instruments. The participants were asked not to include any personal information, the identity of any person or institution in the survey instruments. The mediator has a master's degree in Nursing and completed ethics training as part of the master's curriculum.

The college campus where the researcher worked was excluded from the study so that students did not feel coerced to participate in the study. The identity of the participants and units they

referred to were anonymised, using a thick black marker pen. No student, nursing college or health institution was identified in the dissertation.

1.10.4 Fair balance between risk of harm and likelihood of benefit

The study population (fourth-year nursing students of a provincial nursing college) was regarded as vulnerable because of the power difference between nurse educators and students. On the other hand, the study offered the participants the chance to give feedback on the quality of medical and surgical settings where they were placed during the first three years of their study. At the same time, the findings of the study provided important information on the clinical settings that were used for student placement, and actions that could be taken to either assist these settings to improve the quality of the clinical learning environment of these units or to take the decision to terminate placement in these settings and search for alternatives. These benefits, however, did not outweigh the risks for this vulnerable group and therefore additional measures were planned to protect the participants.

On rare occasions, such an experience could have been traumatic, but as they were not required to provide any information about traumatic incidents, the researcher did not expect the process to be traumatic. However, should this have happened, the participant would have been seen by the designated college counsellor immediately.

The study rendered valuable empirical data on the quality of the clinical learning environments of the medical/surgical units of facilities used by the various campuses for the placement of students. After the initial approval (accreditation) of these facilities by the South African Nursing Council (SANC), little is done to monitor the situation as it relates to the quality of these clinical learning environments.

1.10.5 Informed consent

Extra measures were taken to ensure that no coercion took place, informed consent was thorough and that participation was voluntary by making use of master's degree qualified nurse as mediator. The researcher, who worked as clinical facilitator at a college campus that was excluded from the study, did not have contact with students of the other 4 College Campuses.

To ensure that the students participated voluntarily and made an informed decision, the mediator obtained informed consent prior to distributing the survey instruments and explained the study, the aim, the procedure, what was expected of participants and, very important, that the process was voluntary and anonymous and that the 'survey instruments' that they were to complete could not, in any way, be linked to them. Participants were also asked not to name any person or the hospital in their responses.

Volunteers received an information leaflet and informed consent form (Annexure F). They only signed this after the aim of the study and what was requested from them was explained. Their rights to voluntary, informed consent were emphasized as well as their right to withdraw from the study at any stage of completing the survey instrument.

Students had time to ask questions, and the researcher was available telephonically should the mediator not know what to answer. They also had time to reconsider participation, as a later date and venue were scheduled for completion of the survey instruments.

They were handed a letter to explain the study, containing the following information:

- The research objectives of the study
- The data collection method and what was required from them
- Their rights of informed voluntary participation, anonymity and confidentiality, and the way it would be handled. The right to withdraw from the study. It was explained that it would not be possible to identify a specific survey instrument after completion because of the anonymity of the survey instrument
- There was no compensation for participating in the study
- The researcher's full details, including contact information, was provided

Informed consent was reconfirmed during the follow-up meeting, where the mediator again repeated the aim of the study, the procedure (what was required of them), the risks and benefits of the study, their right to withdraw before they handed in the anonymous, completed survey instrument, and the informed consent form. She answered their questions and then gave them time to read the informed consent form again and to sign it. These forms were then sealed and stored separately from the completed survey instrument.

1.10.6 Respect for participants and authorities: anonymity, privacy and confidentiality

Participants' rights in terms of anonymity, confidentiality and privacy were protected throughout the research. Their private information was not required and they were asked to complete the survey instruments anonymously. After they agreed to participate they were asked to sign the consent form. The mediator put all signed consent forms in an envelope that was sealed and stored separately from the completed survey instruments.

The researcher anonymised the Nursing College and the placement settings by using a thick black pen to erase the information to protect the institution. Campuses and hospitals were coded for analysis purposes.

1.10.7 Researcher competence and experience

The researcher (and mediator) completed a course on Research Methods on masters' level and made an in-depth study of the phenomenon under investigation.

1.10.8 Publication of results and feedback to participants

The researcher and supervisor have the responsibility to disseminate the findings of the study. Based on the principles of knowledge translation, the findings will be packaged according to the preference of the target audiences. A manuscript will be submitted to an accredited journal and a one-page document on the major findings of the study will be sent to the Nursing College Principal. The participants of the study might have finished their studies by the time the study findings are available, but should they require information about the findings the researcher will share it with them.

1.10.9 Role of the researcher

Students are seen as a vulnerable population and for that reason the researcher, who was a staff member at one of the campuses, did not directly approach them. The students involved in the pilot study from this campus did also not take part in the study. A mediator with research methods training took the role of researcher at each campus; she is termed the "mediator" in this document. The researcher informed the mediator about the aim, method and ethical considerations of the study, the sampling and the mediator's role in the study. The mediator signed a confidentiality agreement (Annexure I). A meeting was held during which the researcher took the mediator through the process of recruitment and informed consent again and she was given time to ask questions. Anything that was unclear was then discussed. During the training the researcher used role-play to test the mediator's understanding of the process. The mediator was advised to complete the online course (Treess) in research ethics as recommended by Professor Greeff of the North-West University. The researcher was not involved in data collection at all.

1.11 Thesis Outline

Chapter 1: Overview of study

Chapter 2: Literature review

0: Research design and methodology

Chapter 4: Data analysis and research findings

Chapter 5: Discussion of results

Chapter 6: Summary, main findings, limitations, recommendations and conclusion

1.12 Summary

This study highlights the concern for the quality of the clinical learning environment and its impact on student learning. In describing the quality of the clinical learning environment as perceived by fourth year nursing students of four of the eleven campuses of a provincial nursing college, the researcher attempts to show empirical evidence that can be used by the college in planning the clinical placement of students.

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

This chapter provides an in-depth discussion of the best available evidence in the field of clinical learning environments. The chapter commences with a review of the literature related to clinical learning environments for undergraduate nursing students, and the importance of the clinical learning environment in nursing education. Significant highlights in this chapter include the importance of work-integrated learning in nursing practice, the quality of the clinical learning environment as a critical factor in learning, contributors to the quality of the clinical learning environment and challenges in the clinical learning environment. This is followed by a sweeping overview of measuring the quality of the clinical learning environment, interventions to increase the quality of the clinical learning environment and limitations in the body of knowledge related to quality clinical learning environments. The reasons for evaluating the clinical learning environment and concerns about the clinical learning environment are also illuminated. The chapter concludes with a brief summary.

2.2 Methods and Procedure

The literature review is based on a rapid systematic search for relevant articles on the impact and characteristics of the clinical learning environment on clinical learning and outcomes. A wide-ranging data search was conducted to identify studies of the relevant stakeholders in the clinical learning environment and their contribution to clinical learning. An electronic data search was done, and databases included Ebscohost (Medline, CINAHL, Academic Premier, Science-Direct, and Scopus), Google Scholar, Sabinet and PROQUEST. The inclusion criteria were research articles and reviews published in English in scholarly peer reviewed journals, with abstracts and full texts, published from 2000 to 2015. The unit of analysis was primary studies independent of the research method used. The exclusion criteria were letters to the editor, literature reviews, textbooks and newspaper articles. The search rendered 100 relevant studies as judged by the researcher. The question that guided the literature review was: **What is the best available evidence on the quality of the clinical learning environment where undergraduate nursing students are placed?** Key words used in the search were student nurses, clinical learning environment, ward climate, ward atmosphere, clinical learning and clinical experience.

2.3 Outcome of Review

In the studies reviewed, students are the most common source of information. Eighty-eight studies sampled nursing students at different levels of nurse education training. Most of the students were degree students in higher education. In the other studies, other clinical stakeholders were sampled either in combination with students or alone:

- n = 6 studies sampled registered nurses (Brammer, 2006:963; Chuan *et al.*, 2012:192; Hathorn *et al.*, 2009:227; Neshuku & Justus, 2015:87; Rikhotso, 2010:17; Sharghi *et al.*, 2015:15)
- n = 4 studies sampled preceptors (Corlett, 2000:499; Hall-lord *et al.*, 2013:506; Houghton *et al.*, 2012:1963; Duffy, 2009:166)
- n = 3 studies sampled clinical facilitators (Dickson *et al.*, 2006:418; Hall-lord *et al.*, 2013:506; Nasrin *et al.*, 2012:1)
- n = 4 studies sampled nurse educators (Rezaee & Ebrahimi, 2013:62; Chuan *et al.*, 2012:192; Lekhuleni *et al.*, 2004:15; Corlett, 2000:499)
- n = 2 studies sampled clinical staff including nurse manager, staff nurse, clinical placement coordinator and newly qualified nurse (Hall-lord *et al.*, 2013:506; Houghton *et al.*, 2012:1963).

The majority of the quantitative studies used convenience sampling or non-random sampling methods, whilst qualitative studies used mainly purposive sampling. In qualitative studies, the average number of participants varied from four to 14. Two of the qualitative studies had over 50 participants:

- 54 participants (O'Mara, 2014:208)
- 90 participants (Sharif & Masoumi, 2005:1).

In 18 quantitative studies the sample size varied from 10-84, whilst

- 30 of the studies had 100-500 participants, and
- six (6) of the studies had over 500 participants (Skaalvik, 2011:2294; Papastavrou *et al.*, 2010:178; Warne *et al.*, 2010:809; Newton *et al.*, 2010:1371; Saarikoski *et al.*, 2013:78; Brown *et al.*, 2013:565).

In triangulating, qualitative and quantitative studies, the sample size varied from 23 to 132 participants (Rezaee & Ebrahimi, 2013:62; Nash, 2007:6; Hood *et al.*, 2014:109).

A national and international perspective has been obtained, encompassing research from across the globe, including Australia where most of the research has been undertaken (n=26). This is

followed by other countries including South Africa (n=12), Finland (n=8), Iran (n=8), United Kingdom (n=8), United States of America (n=5), Sweden (n=5), Canada (n=5), Norway (n=3), Oman (n=2), Turkey (n=2), Ireland (n=2), Western Europe (n=2), Saudi Arabia (n=2), Germany (n=1), Hong Kong (n=1), Malaysia (n=1), Tehran (n=1), Spain (n=1), New Zealand (n=1), Greece (n=1), Cyprus (n=1), Italy (n=1), Korea (n=1), Philippines (n=1), Malawi (n=1) and Namibia (n=1).

2.3.1 Research methods

In the studies reviewed, the main approach to studying the clinical learning environment was quantitative and comprised 54% of the studies. 33% of the studies on the clinical learning environment were qualitative, whilst 8% were mixed methods and 2% used a quasi-experimental design. In addition, 3% of the studies reviewed combined quantitative and qualitative approaches (Rezaee & Ebrahimi, 2013:62; Nash, 2007:4; Hood *et al.*, 2014:109).

International studies reviewed indicated that most research (85%) has been conducted overseas, Africa-wide was 3% whilst South African studies were a mere 12%, indicating that little research has been done locally. The majority of the studies reviewed had a cross-sectional design, whilst (n=4) studies had a longitudinal design (Newton *et al.*, 2012:2331; Newton *et al.*, 2010:1373; Spouse, 2001:149; Salamanson *et al.*, 2015:206).

In addition, the study by Brown *et al.* (2013:512) had a prospective design as opposed to Payne & Claspie (2014:e64) who had a retrospective design.

The qualitative studies used interviews (n=22), focus group discussions (n=14), observation (n=6), clinical diaries/journals (n=3), naïve sketches (n=2), field notes (n=2), illuminative art (n=1) and analysis of critical incidents (n=1) as their data collection methods.

The quantitative studies used surveys/questionnaires (n=47) as their data collection method. In the studies reviewed the survey/questionnaires were self-administered, postal (Lewin, 2007:238) or online (Salamanson *et al.*, 2011: 2670, Payne & Claspie, 2014:e64). The quasi-experimental studies reviewed used pre- and post-test surveys (Edwards *et al.*, 2004:1) and control and intervention groups (Henderson *et al.*, 2009:178). In studies combining qualitative and quantitative approaches, data collection methods included focus group discussions and surveys (Nash, 2007:6; Hood *et al.*, 2014:109).

In qualitative studies, the data was analysed using content and thematic analysis, Teschs method, modified van Kraam method (Hathorn *et al.*, 2009:232), the method of Colaizzi (Papp *et al.*, 2003:265), Giorgi thematic analysis (Dickson *et al.*, 2006:418) and Nvivo (Houghton *et al.*, 2012:1963). In quantitative studies, data was analysed using statistical methods of analysis.

Only 63% of the studies reviewed discussed the validity, reliability and trustworthiness of the research, although 2 articles were about the validation of the research instrument (Saarikoski *et al.*, 2005:1; Bos *et al.*, 2011:1785).

2.3.2 Focus of previous studies

Most of the studies in the field of Quality Clinical Learning Environments are descriptive in nature and consist of either cross-sectional quantitative studies that have focused on students' perception regarding clinical learning, or small scale qualitative studies focusing on the experiences of students in the clinical area.

The majority of studies examined the hospital (including public and private hospitals) as a clinical learning environment (Mothiba *et al.*, 2012:195; Chan & Ip, 2007:677; Midgley, 2006:338; Kachiwala, 2006:25), whilst few studies focused on clinical learning environments outside traditional hospital settings, like nursing homes, community based departments, psychiatric departments and primary health care (Bisholt *et al.*, 2013:306; Bjork *et al.*, 2014:2958; Maogi, 2013:359) and the military learning environment (Caka & Lekalakala, 2013:1-11).

The study by Midgley (2006:339) highlights that the clinical learning environment has changed significantly, particularly the hospital population. The shifting of emphasis of care from secondary to primary has resulted in acute patients in hospital and minor and chronic patients in community based care. Findings of the study by Bjork (2014:2958) reveal that students were more satisfied with their psychiatric clinical placement, as clinical supervisors work more closely with the students and there is individualised patient care. In contrast, the findings of the study by Bisholt (2013:306-310) reveal that students encountered few learning situations and considered psychiatric placements inadequate, as there was little encounter with patients and little opportunity for practical training.

The study by Henderson *et al.* (2012:301) reviewed six (6) studies using quantitative measures (CLEI), in different countries, over the last decade, on consistent trends in the learning environment. The findings were that across different countries students report similar perceptions about learning environments. Students rated task accomplishment high and innovation in learning environments low.

The study by Edwards *et al.* (2004:248) focused on rural versus metropolitan clinical learning environments on students' clinical experience, competence and readiness for practice. Findings of this study revealed that although there is inadequate preparation of nursing graduates for rural practice, rural students reported greater competencies, confidence and organisational skills than metropolitan students.

The study by Clare *et al.* (2003:1) focused on the creation of clinical education benchmarks.

Payne and Claspie (2014: e65) argues that there is little research on the academic educational environment, and that majority of studies focus on the clinical educational environment with student perceptions, without exploring these perceptions in relation to actual academic outcomes. Further arguments are that learning cannot be measured through student perceptions. In addition, there is little research exploring the relationship between students' perception of total academic environment (didactic and clinical).

The study by Salamanson *et al.* (2015:207) explored how student demographic characteristics affect the perceived quality of clinical placements. Worldwide, contemporary nursing has an increasing diversity of students. There is an impact of different demographics on learning styles, communication skills and interpersonal styles. This creates challenges in learning in terms of language barriers for culturally diverse students in the clinical learning environment. In addition, the findings of the study by Bjork *et al.* (2014:2958) reveal a higher level of positive perceptions of learning environments in older students, possibly due to being more motivated and more mature to handle challenges in the clinical learning environment. There are gaps in research on how students' age may influence learning in clinical settings.

Previous studies also looked at the impact of different clinical teaching models on enhancing clinical learning in the clinical learning environment, such as preceptorship and clinical facilitation (Saarikoski *et al.*, 2007:407; Newton *et al.*, 2010:1372) and mentorship (Papastavrou *et al.*, 2010:177). The study by Henderson *et al.* (2006:564) compared different placement models and found that although preceptorship is effective in creating a positive clinical environment, the Clinical Education Unit (CEU) is more sustainable through placement of greater numbers of students and ownership for student learning.

The study by Papastavrou *et al.* (2010:177) looked at the integration of nursing education into higher education and its impact on the clinical learning environment. It was assumed that since nursing education would take on a different approach, learning approaches would also be different and utilisation of the clinical learning environment would be improved. In contrast, the increasing theory-practice divide is attributed to the move of nursing education into higher education. Breier *et al.* (2009:74) add that the move to higher education has increased nurses in management and research and created a decline in 'hands on nursing'.

2.3.3 Methods used to study the clinical learning environment

Many different methods were used to study the clinical learning environment. Most researchers used non-experimental, empirical studies to measure the clinical learning environment, using

different instruments (Alhaqwi *et al.*, 2014:44; Chan, 2002:69; Chuan *et al.*, 2012:192; Saarikoski *et al.*, 2008:1233; Saarikoski & Leino-Kilpi, 2002:259; Sand-Jecklin, 2009:232).

A few researchers used a quasi-experimental design to study the clinical learning environment (Henderson *et al.*, 2009:177; Edwards *et al.*, 2004:248).

Other researchers tried to get a deeper understanding of the clinical learning environment using different qualitative approaches. Some qualitative approaches used were participatory action research (Clare *et al.*, 2003:238; Young *et al.*, 2014:42; Nash, 2007:4), phenomenological research (Papp *et al.*, 2003:262; Mothiba *et al.*, 2012:195); phenomenography (Brammer, 2006:963), case study designs (Houghton *et al.*, 2012:1961 and grounded theory (Nasrin *et al.*, 2012:1).

Researchers using the mixed method approaches tried to get a more holistic picture of the clinical learning environment (Courtney-Pratt *et al.*, 2012:1380; Sundler *et al.*, 2014:661; Bisholt *et al.*, 2013:306; Salamanson *et al.*, 2015:206).

According to the articles reviewed, some researchers used different approaches to study the following aspects of the clinical learning environment:

- **Causes** of poor quality clinical learning environments (Anthony & Yastik, 2009:140; Thobakgale *et al.*, 2013:182; Small *et al.*, 2011:1-8; Hathorn *et al.*, 2009:227; Brammer, 2006:963)
- **Effects** of enhancing the quality of the clinical learning environments (Houghton *et al.*, 2012:1961, Henderson *et al.*, 2006:104; Lait *et al.*, 2011:211)
- **Interventions** to improve the quality of the clinical learning environment (Jeggels *et al.*, 2013: 1-6; Du Plessis, 2004:67; Hall-lord *et al.*, 2013:506; Algozo & Peters, 2012:197; Houghton *et al.*, 2012:1961).

2.3.4 Instruments used to measure or describe the clinical learning environment

Many instruments were developed over many decades to assess and evaluate the effectiveness of the clinical learning environment, the most prominent being the following:

- Clinical Learning Environment, Supervision and Nurse Teacher Scale (CLES-T) of Saarikoski & Leino-Kilpi (2002:259) and Saarikoski *et al.* (2008:1233)
- Clinical Learning Environment Inventory (CLEI) developed by Chan (2002:69)

These instruments were tested and validated internationally in an effort to improve the standard of clinical nursing education and practice.

- **CLES-T** examines student's perception of the clinical learning environment, supervision by staff nurses and the nurse teacher
- **CLEI** examines student's perception of the clinical facilitator and clinical facility. The CLEI has been used and validated in many countries, such as the United Kingdom, Australia, Norway, Hong Kong, Italy, Cyprus and Greece (Bjork *et al.*, 2014:2958; Henderson *et al.*, 2012:299; Paphansiou *et al.*, 2014:57; Smedley & Morey, 2009:75-88; Midgley, 2006:338; Perli & Brugnolli, 2009:886). The CLEI consists of six domains (personalization, student involvement, satisfaction, task orientation, innovation and individualization)

However, according to Salamanson *et al.* (2011:2668), CLES-T and the CLEI are lengthy and not suitable for diverse placements. The CLEI-19 is an abbreviated tool of the CLEI instrument developed by Salamanson *et al.* (2011:2668), and measures two aspects of clinical experience, the clinical facilitator's support of learning and the clinical learning environment.

Another instrument is the Dundee Ready Education Environment Measure which measures students' perception of the health professions curricula and the educational environment. It also measures perceptions of the teachers or instructors (Payne & Claspie, 2014: e65).

2.4 Themes Deduced from the Literature Review

2.4.1 Importance of the clinical learning environment

According to Papp *et al.* (2003:262), the clinical learning environment includes all that surrounds the nurse, including the setting, equipment, nursing staff, patients, nurse educator and the nurse mentor. Tiwaken *et al.* (2015:66) add that it includes attitudes, work ethics, supplies, census and patients' family members. Lambert (2005:664) states that the clinical learning environment includes organisational/ward culture, relationship between students and staff, atmosphere in the ward, team spirit, attitude towards teaching and learning and attitudes towards students. In addition, the clinical learning environment also includes the delivery of the curriculum and ability and motivation of the teachers.

The clinical learning environment serves many core functions in developing professional and knowledgeable nurses capable of critical thinking and judgement for contemporary nursing.

2.4.1.1 Teaching and learning resource

The clinical learning environment is a rich resource in learning and teaching opportunities (Rezaee & Ebrahimi, 2013:62-65). Chan and Ip (2007:678) asserts that it is a powerful teaching environment for the teacher and an important vehicle for the student, and further argues that the CLE is equivalent to a classroom for student nurses during their clinical field placement. It

provides invaluable experiences for student learning (Smedley & Morey, 2009:77). Clinical learning environments are important for the learning processes of students (Skaalvik, 2011:2294).

However, in the study by Alhaqwi (2012:21), students felt that teaching was opportunistic and less structured. Nielsen *et al.* (2013:302) add that learning can be unpredictable and random. In contrast to the academic environment there is a lack of control in the clinical learning environment, which makes it a valuable and critical learning experience, but also poses threats to quality.

2.4.1.2 Provision of authentic learning experiences

Papp *et al.* (2003:262) emphasize that the quality of clinical learning environment is considered an important factor when determining the quality of the clinical experience for the student. According to Boxer and Kluge (2000:327), all the skills required to be a nurse cannot be successfully acquired in the laboratory setting. This is supported by Chapman and Orb's (2000) research that it is not possible to simulate completely real patients who are sick, distressed, afraid and anxious in a laboratory setting. Although clinical skills can be learnt in the laboratory, they need to be practised, developed and mastered in the clinical setting. According to Moghimi *et al.* (2012:5222), having theory alone is not enough for nursing care; applying clinical skills is essential. Also, simulation/book learning may not truly capture authentic encounters with the patient (Stockhausen, 2004:10). Knowledge needs to be presented and learned in an authentic context and requires social interaction and collaboration (Smedley & Morey, 2009:76).

The CLE provides a unique and complex learning environment, and this complexity challenges students to learn (Salamanson *et al.*, 2015:207). The CLE provides opportunity to practice a range of activities (Stockhausen, 2004:12), and learning situations are varied and demanding for student level (Papp *et al.*, 2003:266). However, Houghton *et al.* (2012:1964) warn of the clinical skills lab and clinical learning environment gap and recommends a common principle-based approach, where variations in clinical skills procedures across both settings could be acceptable so long as principles are adhered to. Implementing skills in CLE is challenging as it consists of real life, real patients, a variety of individuals and is uncontrolled.

2.4.1.3 Experiential learning

Stockhausen (2004:10) asserts that there are elements of the educational process that cannot be taught, but have to be experienced, for example, empathy. Learning to become a nurse is based on contextual encounters with the patient and the registered nurse (by observing role models). In the CLE, the patient is at the crux of the experience. Saarikoski (2003:17) adds that contact with patients is an important element of learning nursing in clinical practice. Nursing care is seen as the basic element for a student's experience in clinical practice (Saarikoski, 2002:16). The CLE provides the opportunity for students to experience the world of nursing (Chapman & Orb, 2000) and learn from that experience.

The CLE provides direct contact with patients, clients, families and staff (Nash, 2007:1). Learning in the clinical setting involves taking on the role of the nurse through observing the registered nurse role, experiencing what the role involves and practicing independently (Croxon & Maginnis, 2009:238). Entering the world of the patient engages students in potent encounters with the patient, helping students to read and interpret cues in order to understand the experiences of the patient (Stockhausen, 2004:12). Experiences in the clinical learning environment are powerful in shaping students' attitudes to learning, practice and professional development (Henderson *et al.*, 2012:299).

It is also argued that the practice experience may not be an educational experience, because learning methods like reflection that advance student nurses' intellectual development are not actually implemented (Lofmark & Wikblad, 2001:43).

2.4.1.4 Caring context

According to Edwards *et al.* (2004:249), graduates are expected to demonstrate all the attributes of caring, and this cannot be simulated in a laboratory. Lekhuleni *et al.* (2004:26) add that the CLE prepares students for the provision of humanistic caring. Learning in a humanistic environment develops important values such as understanding and caring for others, which is appropriate caring behaviour (Kossioni *et al.*, 2013:71). Patient centred care promotes learning (Alhaqwi, 2012:44). Students adopt a person perspective and move away from seeing patients as stereotypes and from performing technical skills, towards being present with them as persons and seeing and responding to their individual needs (Spouse, 2001:149). Knowledge is embedded in the context of caring (Dickson *et al.*, 2006:416). Active participation in patient/client care allows the student to develop the ability to analyse critically and to solve clinical problems (An Bord Altranais, 2003).

2.4.1.5 Professional socialisation

The clinical learning environment has a unique role in preparation of the learner for a professional role (Killam & Heerschap, 2012:684). The CLE allows students to learn their profession from and amongst those who are already practising it (Salamanson *et al.*, 2011:2674). According to Croxon and Maginnis (2009:238), students become enmeshed in the practice, acquiring the beliefs, practices and behaviours promoted by the profession.

2.4.1.6 Development of skills

The clinical learning environment is important for students to achieve desired learning outcomes (Salminen *et al.*, 2010:233). According to Dickson *et al.* (2006:417), the CLE is important for skill acquisition, integration of theory and practice, application of problem-solving skills and development of interpersonal skills. Saarikoski (2003:1014) adds that the clinical learning environment is the only setting which teaches history taking, physical examination, clinical

reasoning, decision-making, empathy and professionalism, and is therefore of crucial importance to nursing education. Zhang *et al.* (2001:467) illustrate how students develop interpersonal understanding by interpreting the patients expressed or unexpressed emotional concerns, reading the patients' unspoken words and establishing effective communication.

2.4.1.7 Development of competence

Learning in clinical practice is of considerable importance for competence development (Bergjan & Hertel, 2013:1393). Incompetent nurses are a danger to people's health (Sharghi *et al.*, 2015:16) and therefore practice and maximum exposure in the clinical learning environment is critical in learning to become a nurse. The clinical learning environment is most effective in promoting safe practice (Henderson *et al.*, 2012:299).

Clinical practice is the field for student nurses to study, experience and develop nursing competence in relation to different diseases and in different patient situations, in co-operation with experienced professionals (Tiwaken *et al.*, 2015:69). Clinical practice increases student nurses' professional competence, including independence and self-directedness (Papp *et al.*, 2003:262). According to Zhang *et al.* (2001:471), students transform competencies into effective performance in the clinical learning environment.

2.4.1.8 Development of interpersonal relationships and teamwork

Various studies highlight how the CLE helps students to learn about teamwork (Perli & Brugnonli, 2009:886) and working more interdependently with other members of the team (Warne *et al.*, 2010:814).

2.5 Importance of Work-Integrated Learning in Nursing Practice

Work-integrated learning refers to contextual learning that occurs as students are immersed in their clinical experience with patients, and develops context or situation specific knowledge (Stockhausen, 2004:10). According to Spouse (2001:14), work-integrated learning assists in professional development, incorporating the knowledge, skills and attitudes necessary for effective practice, and prepares individuals to work in environments that are uncertain and changing rapidly. It helps to develop skills that enable practitioners to be self-directed, to take the initiative, to work with others, to communicate clearly, to make judgements, to be responsible and assertive. Further, the transition from skilled technical workers to active problem-solvers enables students to negotiate their organisational culture, and develop knowledge of the organisation and how things work. Houghton (2013;1) adds that work-integrated learning helps individuals to adapt and integrate into the workplace. In addition, the Council for Higher Education (CHE, 2011:6) illuminates the benefits of work-integrated learning:

- Academic benefits – improved general academic performance and increased motivation to learn
- Personal benefits – enhance teamwork, leadership and co-operation
- Career benefits – assist in the development of a professional identity and positive work values and ethics
- Skills development – increased competence.

Also, work-integrated learning plays a role with regard to the readiness of graduates to enter the world of work. However, Spouse (2001:13) emphasizes that in order for workplace learning to be effective, practitioners need to be able to recognise learning opportunities and must be willing and able to communicate their professional knowledge. This requires preparation of staff, decreased clinical workloads and improvement in the quality and quantity of supervisors (Du Plessis, 2004:67). Thus, work-integrated learning is a core component in nursing education. In addition, the quality of the clinical learning environment is a critical factor in learning.

2.6 Quality of the Clinical Learning Environment as a Critical Factor in Learning

The quality of the learning environment is important for nursing students' learning during their clinical education (Saarikoski & Leino-Kilpi, 2002:259), in order for graduates to be able to provide optimal health care as competent and reflective beginning clinicians (Clare, 2003:12). The clinical learning environment creates many opportunities for the development of critical competencies in the nursing profession (Carlson *et al.*, 2003:30). Nursing requires a minimum level of competence as entry to registered nurse and this is dependent on the quality of the clinical preparation received (Nash, 2007:1). According to Papastavrou *et al.* (2010:177), as a result of the complexity and demanding nature of the clinical learning environment, learning is unpredictable. However, although the uncontrolled environment makes it a valuable and critical learning experience, it also creates risks to quality. Bisholt (2013:1-7) adds that clinical learning environments vary in quality and therefore opportunities to achieve the learning outcomes vary.

A quality clinical learning environment means effective learning will occur, as all systems are in place, and provides essential opportunities for students to integrate theoretical knowledge into nursing care, build clinical judgement and develop a professional identity (O'Mara *et al.*, 2014:208). Quality learning experiences should promote better preparation of graduates and ultimately improved quality of patient care. However, national and international discussions point out that not all clinical learning environments are equally suitable for promoting student nurses' competencies within their clinical placements (Papp *et al.*, 2003:262).

From a legal perspective, practise in clinical settings is a requirement to ensure fitness for practice (Newton *et al.*, 2010:137). Fitness to practice, at the point of registration, requires learning experiences in work settings of a high standard, with students receiving support and guidance from knowledgeable practitioners (Spouse, 2001:149). Quality concerns about fitness for practice mean organisations providing institutional care cannot afford to sustain or risk such practices, where litigation or professional investigation may result (Spouse, 2001:13).

The study by Nash (2007:9) highlights the preparation of students for their role as registered nurses as a highly important issue. In her study, the proportion of work carried out by registered nurses was 80% in a teaching hospital and 94% in community health centres, whilst only a proportion of work was carried out by enrolled nurses and assistant nurses. Registered nurses determined the level of care required, provided appropriate supervision and guidance on a continuous basis and retained accountability for care provided. Also, Brown *et al.* (2013:510) add that nursing graduates enter positions with significant responsibility in the health care system.

According to the National Department of Health (Department of Health, 2012:9), South Africa's predominantly nurse-based healthcare system requires nurses to have the competence and expertise to manage the country's burden of disease, meet South Africa's healthcare needs, engage in policy debate and provide leadership for change. The involvement of high calibre, upskilled nurses to manage the implementation of changes is essential. Nurses and midwives are critical to the achievement of the new policy initiatives, which include the national HIV counselling and testing campaign, task shifting to enable nurses and midwives to initiate and manage patients on antiretroviral treatment who were previously excluded from this highly technical task, primary health care (PHC) re-engineering as well as initiation and implementation of the National health insurance (NHI) system.

2.7 Contributors to the Quality of the Clinical Learning Environment

2.7.1 Supportive clinical learning environment

Chan and Ip (2007:677) assert that a supportive clinical environment is of paramount importance for students in clinical practice. There is consensus in previous studies that a supportive clinical environment, with a good ward atmosphere and good interpersonal relationships, contributes positively to the quality of clinical learning environment (Papp *et al.*, 2003:262; D'Souza, 2013:25; Chan, 2002:567). In addition, good co-operation between staff members, good co-operation between educational institutions and clinical staff, a good caring philosophy, attitudes and behaviour of staff within the clinical setting and an environment where students are appreciated, are regarded as part of the nursing care team and are given opportunities to meet their objectives

also contribute positively to the quality of clinical learning environment (Papp *et al.*, 2003:265-267).

2.7.2 Effective Communication

In the study by Pearcey and Elliot (2004:386), good communication is viewed by students as central to good nursing. In addition to that, Clare *et al.* (2003; 15-69) found that positive learning cultures displayed communication of information, including objectives / expectations for the clinical placement to clinicians before student commencement; thorough student orientation to the health service and the clinical learning environment; open, effective, timely and accurate communication among all parties involved in teaching and learning; organisation of specific learning experiences that ensure course and individual learning objectives are met; quality preceptorship of students for each placement; quality mentoring and role-modelling by experienced registered nurses; pre-briefing and debriefing sessions for students and nursing staff in the clinical learning environment; timely and accurate provision of formative feedback; and articulation of specific learning goals by the university and the nursing student.

2.8 Quality clinical supervision

Clinical supervision represents an important aspect in the development of nursing students' clinical skills (Jeggels *et al.*, 2013:1) and is an important variable in students' clinical learning (Dimitriadou *et al.*, 2014:1). Clinical supervision is recognized as a developmental opportunity to nurture clinical leadership (Sharouf & Masoumi, 2005:4). The study by Saarikoski (2002:259-267) highlights the crucial importance of the supervisory relationship to students' satisfaction with the clinical learning environment and its effect on learning outcomes. According to Bergjan and Hertel (2013:1394), successful competence development is determined by expert supervision.

In the study done by Neshuku and Justus (2015:87-97), key factors identified as critical to quality clinical supervision were a conducive environment to provide effective supervision; adequate material/human resources and equipment; appropriate preparation of supervisors for supervisory role; positive interpersonal relationships and effective communication between students and supervisors as well as registered nurses and lecturers; decreased workload for staff conducting clinical supervision; balanced supervisor/student ratio; control of allocation of students to units; continuing education by registered nurses/preceptors for student supervision; positive staff and student behaviour and attitudes towards clinical supervision; constructive and positive feedback by supervisors; support to registered nurse conducting supervision from education and management; quantity and quality of time for clinical supervision; clinical supervisors should possess a qualification in nursing education; proper selection of registered nurses for clinical supervision

2.8.1 Innovative teaching methods

Innovative teaching methods have also been suggested to influence perceptions of the learning environment positively (Chan, 2002:682). The development of an innovative curriculum allows closer sequencing of theory and practice, and assists in narrowing the theory-practice gap (Corlett, 2000:499). This is supported by Nielsen *et al.* (2013:302) who attest that the use of a planned clinical curriculum, with a variety of clinical experiences targeted at specific learning, allows educators to scaffold learning and provide experiences appropriate to the development of the learner.

2.8.2 Quality of patient care

According to Saarikoski (2002:54), high quality nursing care is a fundamental element in ensuring an effective learning environment, and provides meaningful learning experiences to students. Papp *et al.* (2003:266) emphasizes that good care must be expressed to the students both at school and at the clinical placement. In addition, if students have no experience of caring attributes in clinical situations they might find it impossible to develop such attributes themselves (Pearcey & Elliot, 2004:382).

2.8.3 Students self-directedness

Papp *et al.* (2003:266) found that student nurses are responsible for getting the most out of their experiences in the clinical setting, and need to have a sense of responsibility and an active attitude. Further, a self-directed student is characterized by being aware of one's own limitations and potentials.

2.8.4 Student centeredness

According to Newton *et al.* (2012:2338) student centeredness is integral to fostering a positive and effective learning environment. This refers to the efforts of the clinical teacher in taking the time to engage with students on an individual level, listening to them and offering additional support to help them meet their goals.

2.8.5 Provision of clinical learning opportunities

A variety of clinical opportunities exists in the clinical learning environment, but Perli and Brugnolli (2009:886) warn that there must be coherence between selected opportunities and objectives. Structured learning opportunities should be available in all practice areas. The study by Alhaqwi *et al.* (2014:2) concluded that students' performance in clinical exams was found to be positively associated with exposure to a large variety of clinical cases and provision of feedback from supervisors.

2.8.6 Staff Development

Adequate preparation and capacitation of registered nurses to support and engage effectively with students to enhance learning (Henderson *et al.*, 2009:177) contributes to the quality of the clinical learning environment. Also, continuing professional development programme for registered nurses on aspects of clinical nursing education can enhance clinical teaching (Papastavrou *et al.*, 2010:176). The quality and success of the clinical experience depends on the individual nurses' attitudes, willingness and ability to facilitate teaching and learning opportunities in a supportive way (Chuan *et al.*, 2012:192).

Previous studies indicate that the presence of clinical facilitators enhance clinical learning, and contribute to the quality of the clinical learning environment (Perli & Brugnolli, 2009:886; Carlson & Idvall, 2014:1130). However, clinical facilitators need to demonstrate credibility and expertise in clinical educator performance in order to provide effective mentoring, quality teaching and constructive feedback (Alhaqwi *et al.*, 2014:14). Clinical facilitators also need adequate preparation to use a variety of teaching strategies (Smedley & Morey, 2009:75).

2.8.7 Preparation of students for clinical practice

The study by Wall *et al.* (2014:134) highlights how preparation of students for clinical work can contribute positively to the quality of the clinical learning environment. In this study, students had the opportunity to practice psychomotor skills and develop critical reasoning in a controlled, simulated environment, in order to improve their practice to an optimal level in preparation for their clinical placement. The Department of Health (2012:59) has adopted this principle of clinical practica based on simulation in the planned clinical education and training curriculum.

2.9 Challenges in the Clinical Learning Environment:

2.9.1 Threat to the quality of care

The study by Hathorn *et al.* (2009:227-244) illuminates the threat to quality patient care. Registered nurses feel guilty and unprofessional when quality care is not given by students. The registered nurses have to redo work and check behind students. Some nurses expressed feelings of guilt of the treatment by nurses towards student nurses and how that treatment reduced the quality care of patients. High quality patient care is only feasible if students receive high quality teaching during clinical practica.

2.9.2 Increased patient acuity

There is consensus in the literature that increased acuity of patients and shortage of staff has led to decreased supervision of students, as service needs take priority over education of students (Tanner, 2006:99; Rikhotso, 2010:1-64; Kachiwala, 2006:1-81). The burden of human

immunodeficiency virus/Acquired immunodeficiency syndrome, (HIV/AIDS and Tuberculosis (TB) pandemic has caused many acute complications, and patients are severely and terminally ill, requiring extensive care.

2.9.3 Poor acquisition of skills

The results of the study by Mothiba *et al.* (2012:195) indicate that few opportunities were provided for student nurses to learn, as most of the time was spent doing routine work in the hospital. This is also confirmed by Henderson *et al.* (2012:299) who found that nursing is traditionally ritualistic and task orientated, which inhibits advanced, abstract skill acquisition, such as critical analysis of patient care and independent thinking. Large numbers of students in the wards also limits practical opportunities for learning, regardless of the level of training (Mothiba *et al.*, 2012:195). Some professional nurses feel that students are slow in implementation of tasks, delaying ward routine, and would rather do it themselves. Students are also given tasks which are not in keeping with their learning objectives. The study conducted by Carlson *et al.* (2003:30-39), explains that in the Republic of South Africa student nurses reported that they were not getting the opportunity to practice skills as a result of staff shortage and busy wards.

2.9.4 Insufficient supportive relationships in the clinical area

There is a lack of proficient and experienced trainers in the clinical learning environment (Moghimi *et al.*, 2012:5223). Challenges exist with clinical facilitators who are not adequately prepared for their role and who also have workload pressures (Salamanson *et al.*, 2015:210). Nurse educators are also too busy teaching the theoretical component of nursing and have little or no time for student supervision. There is a lack of preparation of registered nurses for clinical teaching. Conversely, there is a lack of staff commitment to teaching, which obstructs clinical learning (Papastavrou *et al.*, 2010:176). According to the Canadian Nurses Association (2008), nurses have an ethical obligation to support students in the clinical setting. Supportive relationships with students have been reported as the key to enhancing safety in the clinical setting, especially among first year students (Killam & Heerschap, 2012:684).

2.9.5 Failure to identify at-risk students

The study by Teeter (2005:91-92) suggests that a proactive approach to identify at-risk or underperforming students early in their clinical setting placements, and provide effective remediation (Heaslip & Scammel, 2012:95-100), will help to improve fitness for practice. Findings of this study reveal that students can be pushed along without achieving any skills or knowledge, due to subjective evaluative processes. Heaslip and Scammel (2012:95-100) suggest that when grading at-risk students' clinical educators need confidence in their skills. This is further highlighted by Robinson (2009:1-14) who found that developing competencies of clinical

educators in a teaching role requires orientation, clear expectations, mentorship and on-going communication.

2.9.6 Utilization of clinical time

Students do mostly routine tasks, which are not challenging and do not stimulate creative thinking and clinical judgement (Tanner, 2006:99; Mothiba *et al.*, 2012:195). Nursing is ritualistic and task orientated and limits critical thinking (Henderson *et al.*, 2012:299). Students' clinical time is not used effectively and productively (D'Souza *et al.*, 2013:25). This has a major impact on the quality of clinical education as contemporary nursing requires students to analyse situations critically and provide individualized care (Henderson *et al.*, 2012:299). The studies by Moghimi *et al.* (2012:5223) and Mothiba *et al.* (2012:195) reveal that students are assigned unnecessary jobs and allocated work is not consistent with learning objectives. Also, the assignment of afternoon shifts provide little training as mostly routine basic nursing care is carried out to maintain patient comfort. Curriculum overload and limited clinical time require students to manage their time efficiently and effectively in the clinical learning environment if clinical outcomes are to be achieved.

2.9.7 Lack of positive role models and professionalism

There is a dichotomy between higher education institutions and the hospital about what constitutes a 'role-model' (Houghton *et al.*, 2013:5). Poor and ritualized practice may be a norm and this negative culture can influence clinical learning negatively. There is no clarity as to exactly what a good role-model is. Poor attitudes, poor practice, lack of caring and lack of commitment by nursing staff can contribute to a poor quality clinical environment.

In the qualitative study done by Breier *et al.* (2009:104), many cases of nursing misconduct came before the South African Nursing Council, most of them related to poor basic nursing care. The South African Nursing Council website (2008) reveals that 894 nurses in total appeared before the South African Nursing Council professional misconduct committee. Of these 394 nurses (44%) appeared on charges related to poor basic nursing care. Disrespectful attitudes or neglectful behaviour towards patients by nurses are captured by frequent reports in the media. The reasons that nurses gave for this behaviour were overcrowding of wards, large patient load due to shortage of staff and stress caused by the nature of diseases. In the professional misconduct cases by the South African Nursing Council it was found that nurses were not overworked but were officious and uncaring.

Some of the attitudes displayed by nurses were lax attitudes, being judgemental, racist attitudes, infringing on the rights of patients, not respecting the religion and social standing of patients, treatment of psychiatric patients as if they had no rights, not understanding a patient's language

and performing procedures on a patient without the patient understanding or consenting. It was found that there was a lack of ethical principles by non-professional nurses, who needed education in this respect (Breier *et al.*, 2009:107).

The National Department of Health (2011) has staff attitudes and respect for patients as one of its top priorities, in an attempt to address this concern. The Office of Standards Compliance developed the National Core Standards (2011) for health establishments in South Africa, which will assist in setting the benchmark of quality care against which delivery of services can be monitored. The study by Saarikoski (2003:1014) recommends role-modelling in terms of professional thinking, behaviour and attitudes of professional nurses that students can imitate.

2.9.8 Political and economic constraints

Contemporary healthcare is greatly influenced by political and economic constraints. The study by Papathanasiou *et al.* (2014:57) illuminates how cost-effective and cost-cutting procedures can be a threat to holistic approaches in patient care. Whilst contemporary clinical training necessitates integration of new technologies, lack of equipment, staff and other resources impact on quality clinical training and at times may result in questionable practice. Due to budgetary constraints, there are no protective masks in public hospitals at times and gloves are of a poor quality (Breier *et al.*, 2009:95), thereby exposing staff to nosocomial infections like multi drug resistance (MDR) TB and Hepatitis B. Sisters complain that students' waste gloves, but certain procedures require it. Appointment of student clinical support systems, like clinical facilitators and preceptors, are also determined by political and economic decisions to improve the quality of nursing education (Strategic Plan for Nursing Education, Training and Practice, 2012/13-2016/7).

2.9.9 Lack of caring

The qualitative study by Solvoll and Heggen (2010:73-77) emphasises the decline in teaching and learning nursing care because of the 'race for knowledge' and research, and a decline in focus on problem-solving and procedures. There is a lack of caring in nursing of patients, and Breier *et al.* (2009:1) report that the nursing profession itself is in need of care.

In addition, the fear of contracting infectious diseases like TB/HIV, Hepatitis and Ebola may interfere with caring (Breier *et al.*, 2009:96). Students are discouraged from wearing gloves because they are too cold and uncaring for patients. The Strategic Plan for Nursing Education, Training and Practice (2012/13-2016/7) recommends that caring should be compulsory modules at all levels of nursing and midwifery training.

2.9.10 High risk Clinical learning environments

Another concern in the clinical area is high risk clinical learning environments, and the study by Breier *et al.* (2009:95) highlights the risks that students experienced in the clinical area during their practica. During emergencies students' first instinct is to assist and save lives without the use of protective wear, thus exposing themselves to infection. Students experience many fears in the clinical area. One of their fears is risk of needle stick injuries, as some professionals demonstrate poor practice by leaving used needles lying around. There are also fears of contracting TB, especially multi-drug resistant (MDR) and extreme drug resistant (XDR) TB types.

In this study, many students did contract TB so the fear was intensified. Students believe that hospitals are not managing environmental risks adequately and taking sufficient precautions to protect them.

There is also abuse by some patients, who act violently in a state of confusion or delirium as a result of their illness (Breier *et al.*, 2009:102). In the clinical learning environment nurses, can be assaulted by patients who are drunk or drugged. There are other types of abuse by patients besides physical abuse, like sexual, verbal and emotional abuse.

There are increased deaths in medical wards due to the burden of HIV/TB and cancers and no counselling. Thus, students find the clinical learning environment very depressing. Although some hospitals have debriefing sessions there is no time to do anything else but nurse.

2.9.11 Relations between nursing staff and students

Relationships between registered nurses and students have a profound effect on student learning worldwide (Brammer, 2006:963-973) and are fundamental to clinical learning (O'Mara *et al.*, 2014:208). Students are integrated in the clinical learning environment through effective relationships (Henderson *et al.*, 2009:177). The study by Ghiasvandian (2004:10-170) explains how poor communication, non-cooperation and improper behaviour between nursing staff and students can affect guidance and thus clinical learning. Students also complain they were abused by nursing staff. Nursing staff expose students to risks that they would not take themselves and use them as scapegoats to blame if anything goes wrong (Mothiba *et al.*, 2012:201).

Severe criticism by nursing staff can cause students to become dissatisfied to such an extent that they exit the profession altogether (Breier *et al.*, 2009:102). This is supported by the study of Chan (2002:69), where poor nursing attitudes and behaviour affects the progression and retention of nursing students. In contrast, the study by Rikhotso (2010:42) adds that students displayed lack of respect and poor commitment to learning. Cultural barriers like language can be an obstacle in the clinical learning environment where students and nursing staff come from different cultures. Students see human relationships in the clinical learning environment as their top priority whilst

in clinical placement (Chan & Ip, 2007:677). The findings of the study by Smedley and Morey (2009:75-88) point to the need for further development of positive relationships between clinical staff and students.

2.9.12 Theory-practice gap

The existence of the theory-practice gap in nursing has been an issue of **international** concern for many years, as it has been shown to delay student learning (Sharif & Masoumi, 2005:1-7). The issue is said to have caused the movement of nurse education into the higher education sector. In the qualitative content analysis study done by Dadgaran *et al.* (2012:1713-1718), some participants felt that to reduce the theory-practice gap theoretical knowledge should be increased whilst others felt more focus should be on practical procedures. There are also fears that the move to higher education may widen the theory-practice gap further, producing more knowledgeable nurses with less hands-on experience (Breier *et al.*, 2009:65-128). The suggestions by Dadgaran *et al.* (2012:1713-1718) to reduce the theory practice gap include a review of the clinical education curriculum, organizational administrators to be supportive in creating positive learning environments, interactive mentorship and participatory clinical teaching methods and students to seek opportunities to practice new skills in a safe, supportive environment with structured supervision.

2.9.13 Lack of student commitment

The quantitative study by Moghimi *et al.* (2012:5223) highlights the lack of enthusiasm and motivation in students as the most challenging obstacle to clinical learning. There is also a failure of students to maintain discipline. The quantitative study by Thobakgale *et al.* (2013:182) revealed that learner nurses were absent from classroom and clinical settings due to shortage of staff in the clinical area, work overload in the clinical area, being treated as workforce, solving their own family problems and being on family responsibility leave. The study recommended that there should be a support system for learner nurses, particularly during practical learning in the clinical area.

The study by Breier *et al.* (2009:128) states that students themselves are also uncooperative and demanding. This is supported by Rikhotso (2010:41-43) who found that professional nurses indicated dissatisfaction of nursing students' behaviour during clinical accompaniment. Some students were unprofessional, with disrespectful attitudes, a lack of integrity, isolating themselves and lacking interest and participation in clinical practice.

2.9.14 Lack of leadership for clinical learning

There is a lack of leadership for clinical learning according to Rikhotso (2010:1-64), and a shifting of responsibility for clinical education. Registered nurses are expecting the clinical facilitator to do

clinical supervision and vice versa; educators are expecting clinical facilitators to do clinical supervision, but clinical facilitators are few and are overloaded. There is no clear framework as to who is responsible for clinical nursing education. The main objective for the Leadership and Clinical Education workshop done in Australia was to develop a clinical education leadership framework (Nash & Calleja, 2014). According to Henderson *et al.* (2012:299) clinical leadership is vital to transform the old, routine, task orientated nursing culture to one of critical analysis, reflective practice and individualised nursing care.

2.9.15 Stress in students

Although learning in the clinical setting has many benefits, it can be challenging, unpredictable and stressful (Hosoda, 2006:480-490). Students find the clinical component of the nursing curriculum very stressful, and remain overwhelmed in the clinical setting to the point that it influences safety (Killam & Heerschap., 2012:684). Some of the causes of stress are reality shock on entering the practice area, feeling incompetent (Kevin, 2006:36-45), lack of knowledge and experience, fear of being intimidated by clinical tutors, tutors who are unapproachable, over critical and demanding, and projects for class to be done during the clinical learning rotation thus reducing student focus on the clinical (O'Mara *et al.*, 2014:208). In addition, fear of harming a patient or making mistakes (Kevin, 2006:36-45) and apprehension regarding the clinical assessment process (Begley & White, 2003:390-401) cause stress. The theory-practice gap is also a common cause of confusion, stress and anxiety for students (Chuan *et al.*, 2012:192).

In the study by Timmins and Kaliszer (2002:203-211), 68% of the students identified poor relationships with staff as causing stress. Stress may cause many physical symptoms, like sleeplessness, throwing up and lack of confidence, and may cause students to leave the profession (O'Mara *et al.*, 2014:208). Learning will not take place effectively if the learner is stressed, and this will also affect the quality of care given. Students need to be taught to manage stress effectively (Lo, 2002:27-32).

Registered nurses have an increased sense of responsibility and accountability for care provided by students, thus producing more job-related stress for nurses (Grindel *et al.*, 2003:117-123). Some registered nurses feel that students enhance the clinical setting by stimulating staff intellectually, thus establishing collegial relationships. Matsumara *et al.* (2004:297-303) argue that students assist nurses with patient care, thereby allowing nurses to spend more time with high acuity patients. However, some students were viewed as increasing the workload / burden by slowing down the nurses and taking up too much of their time or decreasing the workload

2.9.16 Legal liability concerns

The study by Hathorn *et al.* (2009:227-244) highlights legal liability concerns in the clinical learning environment. Registered nurses feel they may be liable for the mistakes of nursing students. There is increased responsibility of registered nurses for checking after students. Some registered nurses believe that students practice under their license and are a threat to their license. Therefore, some registered nurses may not allow students to participate actively, but just observe, to prevent litigation. The findings of this study are that a need exists for the assessment of nurses' knowledge pertaining to legal liability issues while working with student nurses, and that legal implications for all involved in nursing education should be reviewed and clarified by the governing body of nursing. The study by Killam and Heerschap (2012:684) highlights the vagueness of the students' scope of practice, which was perceived as obscure to the school, students and educators. This lack of clarity on the students' scope of practice was seen as problematic by the students.

2.10 Measuring the Quality of the Clinical Learning Environment

The quality of the clinical learning environment is a serious concern since half of the nursing curriculum is delivered in practice. The challenge of providing students with an optimal clinical educational experience has become overwhelming in a rapidly changing health care environment. Clinical education occurs in a complex and turbulent service environment characterized by heavy workloads and stressful working conditions (Clare *et al.*, 2003:12). According to Tiwaken *et al.* (2015:72), nurse education must commit itself to a high level of clinical practice for student nurses.

A key component of a quality learning environment is the quality of care delivered (Dimitriadou *et al.*, 2014:1-6). Therefore, the clinical learning environment needs to be measured at regular intervals to provide quality benchmarks for optimal learning environments for nursing students.

In addition, best practices for undergraduate education, quality indicators and standards can be developed that could provide benchmarks for quality clinical learning environments (Clare *et al.*, 2003:12). Consequently, benchmarking should lead to continuous quality improvement in the clinical learning environment. Benchmarks provide accurate scientific markers of success that can be measured and monitored so programmes can identify gaps in performance and make improvements. If every CLE strives for quality improvement, based on objective measures and benchmarks, both students and patients will benefit (Clare *et al.*, 2003:44).

2.11 Interventions to Increase the Quality of the Clinical Learning Environment

Numerous previous studies have been conducted to promote learning and improve the quality of the clinical learning environment, namely clinical teaching, supervision or conceptual models. Henderson *et al.* (2006:104) developed a conceptual model whereby a student nurse is partnered with a registered nurse during clinical placement. Partnering contributes to learning through assisting the student to assimilate and integrate into the clinical environment.

The study by Nielsen *et al.* (2013:301) developed an innovative and creative clinical educational curriculum that moves away from the 'random access opportunity' model of clinical education, reliant on total patient care, to an intentional design of clinical learning activities, based on course competencies appropriate to student level. This was based on the fact that doing what the nurse does can lead to unpredictable, unfocussed and random clinical learning, which does not prepare the student for the complex and changing healthcare environment.

The study by Jeggels *et al.* (2013:1-6) focused on the implementation of a preceptorship model to improve the clinical teaching expertise of registered nurses and strengthen the support given to students in the clinical area. The Strategic Plan for Nursing Education, Training and Practice 2012/13-2016/7 also has a preceptor model as part of its implementation plan. Although this is a popular model, according to Croxon and Maginnis (2009:236), this model was failing to meet students' needs in acute nursing practice areas, largely due to registered nursing staff shortages and demanding workloads.

Croxon and Maginnis, (2009:236) evaluated two models of clinical supervision, the preceptorship model and a cluster supervision model with a clinical facilitator. The findings of this study revealed both positive and negative aspects of the preceptorship model, and students preferred the cluster model with the clinical facilitator in one area and not spread across several wards, as this enabled more interaction with the clinical facilitator.

The influence of peers on student learning has been overlooked or underestimated and can be a key component of the clinical learning environment that impacts on student experience. Such a strategy may contribute to the learner friendliness of the ward (Roberts, 2008:35-41). The study by Du Plessis (2004:67) looked at students' experience of a system of peer group supervision and guidance. Findings of this study revealed that students experienced this support system positively, and found the clinical learning environment less threatening on initial entry to the ward and more rewarding. Students learning from each other is an important characteristic of the clinical learning environment and where appropriate could be structured into a clinical education programme (Pearcey & Elliot, 2004:382-387). According to Chuan *et al.* (2012:192), peers are a

valuable resource in the clinical learning environment as they are able to help, support and contribute to learning.

More recently, collaborative models of clinical education have been introduced, such as the clinical education unit (CEU) and dedicated education unit (DEU), in response to the success factors associated with clinical learning (Field, 2004:560). The Strategic Plan for Nursing Education, Training and Practice 2012/13-2016/7 also has these clinical education units as part of its implementation plan to improve the quality of Nursing Education in South Africa.

A key overarching strategy, used successfully around the world to address numerous challenges in healthcare services, is creating positive practice environments (PPE). Positive practice environments (PPE) are cost effective healthcare settings that support nursing excellence and decent work, and improve patient satisfaction, safety and outcomes (Department of Health, 2012:27). Such settings ensure the health, safety and well-being of staff, support quality patient care and improve the motivation, productivity and performance of individuals and organisations. Positive practice environments (PPE) encompass strategies for continuing education, safe, clean working environments, inspirational nursing leadership, collaboration and quality of care (Department of Health, 2012:48). Positive practice environments (PPE) already incorporated in the national core standards, are essential for both nursing education and nursing and midwifery practice (Department of Health, 2012:48).

2.12 Reasons for Evaluating the Clinical Learning Environment

Despite the plethora of studies on the clinical learning environment, what constitutes a good learning environment for students still continues to challenge nurse educators and healthcare organizations (Newton *et al.*, 2010:1372). Internationally, clinical learning environments have been evaluated on an on-going basis in order to improve the quality of clinical nursing education, the quality of care to patients and to set, maintain and improve standards. Optimal clinical learning requires an adequate practice environment (Field, 2004:560). Various studies have indicated that not all practice settings are able to provide student nurses with positive clinical learning experiences (Chan, 2002:69; Lewin, 2007:238). In addition, various studies have indicated that there is room for improvement in the clinical learning environment (Smedley & Morey, 2009:75; Skaalvik, 2011:2294). According to Lewin (2007:238-246), continuous monitoring of students' clinical learning still presents difficulties. Placement in the clinical setting does not automatically mean that learners' professional practice will improve; experiences in 'real life' settings need to be facilitated effectively to obtain the desired outcomes (Henderson *et al.*, 2006:104). Students can also pass through the clinical learning environment without any learning taking place, if effective guidance, supervision, feedback on performance and monitoring of clinical learning does

not take place. Despite international consensus about the importance of the clinical environment as an environment in which to learn, issues about the quality of the clinical learning environment still persist.

Evaluation provides educational institutions with data that is helpful in providing quality learning experiences for students (Smedley & Morey, 2009:75). The study by Sedgwick and Harris (2012:1-6) highlight the unstable nature of the clinical learning environment as an environment in which to learn nursing. The clinical learning environment is constantly changing and complex and faces many challenges, so continuous evaluation is important. Diversification of clinical experiences into a number of new avenues has meant re-evaluation of the clinical learning environment to ensure the clinical learning environment is optimal for student nurses.

Assessment of the clinical learning environment assists in developing an effective clinical strategy in clinical nursing education (Sharif & Masoumi, 2005:1-7). According to Papastavrou *et al.* (2010:176), exploration of this environment gives insight into the educational functioning of the clinical areas, and allows nurse teachers to enhance students' opportunities for learning. Evaluation of the clinical learning environment helps to direct resources to areas where improvements may be required, and nurture and support those areas which are functioning well. It also allows for the assessment of the effectiveness of clinical learning so that problems and barriers to clinical education can be identified (Moghimi *et al.*, 2012:5223). Weak areas identified during evaluation can be developed to improve the quality of the clinical learning environment to enhance learning, competence and plan relevant curriculum changes. It also ensures that students' learning needs are met in the clinical learning environment. According to Bisholt (2013:306), it is essential that the clinical setting meets the demands concerning a good learning environment, so that nursing students feel that the learning is meaningful and follows a progression.

Evaluation of the clinical learning environment ensures that students' clinical learning is well managed, well controlled and there is continuous striving for quality. Strategies to maximize learning in the clinical context are being regularly trialled (Clarke *et al.*, 2003:105). The study by Papp *et al.* (2003:262) reflects that a positive learning environment can lead to increased satisfaction, achievement and success as a practitioner. Evaluating the clinical learning environment assists in the establishment of evidence based practice for optimal clinical instruction. Ultimately, a quality clinical learning environment will improve the quality of graduates that nursing education produces, which will impact on quality care and reduce adverse events and litigation. Improving the clinical learning environment can attract nurses to apply for work in these settings and may reduce the attrition rates of students.

2.13 Concerns about the Clinical Learning Environment

From the literature, it is evident that the clinical learning environment is an international concern in the provision of quality undergraduate clinical education, as it is linked to competence and safety of new graduates (Dickson *et al.*, 2006:416). The study by Sedgwick and Harris (2012:1-6) highlights the significant concerns about the clinical learning and teaching components of undergraduate nurse education, and the unstable nature of the clinical learning environment as a learning environment. According to Sedgwick and Harris (2012:1-6), contemporary clinical settings are challenged by high patient acuity levels, shorter patient hospital stays, staff shortages, coupled with an increased casualization of the workforce, mandatory overtime, and a heavier workload. It is questionable whether the current healthcare setting is an optimal learning environment for students. In addition, the study by Chesser-Smyth (2005:321) questioned the effectiveness of clinical settings, claiming that they fail to provide effective role-models and even recognised it as a source of stress which can affect student learning.

2.13.1 Organization of clinical learning

In this section the organization of clinical learning in relation to length of placements, student overload and missed teaching and learning opportunities will be discussed.

2.13.1.1 Length of placements

Previous studies provide many views on the length of clinical placements. These debates are characterised by arguments around length of placements to meet clinical objectives and to narrow the theory-practice gap. There is poor planning of clinical placements to optimize clinical learning. According to Killam and Heerschap (2012:684), short placements impede skill development, and gaps between placements are also problematic as students are out of touch with practice. Warne *et al.* (2010:809-815) argue that short placements are ineffective as students have less time to integrate skills with interpersonal skills. Longer placements are more effective as students interact interdependently with other members of the team, thus length of placement is important for effective learning. However, the study by Gaberson and Oermann (2010:1-12) argues that length of time spent in clinical activities does not guarantee the quality of learning results, therefore effective and productively planned time by the mentor and nurse teacher is vital. The study by Bartlett *et al.* (2000:369) agrees that the debate should not be focused on the quantity of clinical education time; rather the focus should be on the quality of guidance, support and learning achievements afforded during that time. The study by Bisholt (2013:306) recommends that when planning clinical placements, attention must be paid to whether the setting offers the student a meaningful learning experience, and where the appropriate learning outcomes may be achieved.

2.13.1.2 Student overload

Consensus in the literature indicates an overload of students, internationally, in clinical units (Sundler *et al.*, 2014:661; Houghton *et al.*, 2012:1961), Killam & Heerschap, 2012:684; Moghimi *et al.*, 2012:5223). With the privatization of nursing colleges and the limitation of placement in private hospitals, many public hospital wards have a student overload consisting of students from their own public college, other public hospitals, universities and private colleges. The study by Courtney-Pratt *et al.* (2012:1380) highlights the impact of student overload on clinical learning as there is increased demand for resources and equipment, increased waiting time for the nurse educator, decreased feedback and supervision and no one to refer to in an emergency. Increased students affect clinical learning and quality of patient care. Students are often left with little or no supervision. Little or no supervision of students is a risk factor for adverse events, which may affect patient outcomes and costs to the organisation. Therefore, student overload has a negative impact on both the quality of service delivery and nurse education.

2.13.1.3 Missed teaching and learning opportunities

The study by Houghton *et al.* (2012:1961-1969) maintains that valuable learning opportunities were seen to be provided for students in the clinical learning environment. However, the observational data suggested that at times potential opportunities for teaching and learning clinical skills were missed. This could occur when the ward was busy and students were involved in non-nursing tasks, such as moving furniture and patients to different rooms or when the students were not being adequately supervised. The study by Killam and Heerschap (2012:684) adds that in the clinical setting when impetus for finding learning opportunities is on the student, shyness or negative attitudes can also impede learning. Students become afraid to ask questions. Also, some registered nurses lack teaching skills and are unable to recognize teachable moments that can promote learning. Challenges in the clinical learning environment pose obstacles to effective learning.

2.14 Limitations in Body of Knowledge Related to the Quality of the Clinical Learning Environment

Although clinical teaching and learning in nurse educational systems have been examined from different perspectives, the studies have not produced a consistent theory of clinical teaching (Saarikoski, 2002:10). Further, only a few studies have been published about the learning needs or learning experiences of nursing staff in clinical practice (Saarikoski, 2002:16). Much of the current literature is descriptive in nature and involves small scale qualitative studies focusing on experiences of particular student cohorts, or cross-sectional quantitative studies that have focused solely on students' perceptions regarding clinical education. There has been very little

systematic consideration of the sustainability of stakeholders' perception over time (Nash, 2007:2).

A limitation of the research methodology is the paucity of research conducted on placements in community settings; the focus is largely on hospital environments (Berntsen & Bjork, 2010). Lewin (2007:39) adds that there are limited longitudinal and comparative studies.

Collaboration between universities and clinical placements has repeatedly been highlighted as a weak point of nursing education, where lack of communication and agreement between parties involved in the students learning is described as a serious problem (Hall-lord *et al.*, 2013:506). According to Clare *et al.* (2003:12), very few studies provide conclusive evidence of best practice initiatives in clinical education; this is an area where further research is required.

Clinical learning occurs in an environment designed for clinical service rather than education (Berntsen & Bjork, 2010:18). Other studies have questioned the effectiveness of clinical settings, claiming they fail to provide students with positive examples of behaviour, and even recognized it as a source of stress that can affect student learning (Chesser-Smyth, 2005:321).

According to Papp *et al.* (2003: 266-267), clinical education occurs in an environment that can be unstructured, unpredictable and overwhelming, and it is difficult to plan an optimal clinical learning environment for students when it is constantly changing.

According to Clare *et al.* (2003:12), the evidence-based literature to date is incomplete and inconclusive about the relative advantage of any one particular clinical model with respect to the achievement of desired outcomes. Each model appears to offer certain benefits in terms of promoting student learning and clinical outcomes, but these benefits are, in turn, offset by various shortcomings or weaknesses. In addition, there appears to be little consistency and difficulty in evaluating the effectiveness and quality of clinical educational models (Dickson *et al.*, 2006:417). Thus, more research is necessary to develop an evidence based clinical nursing educational model.

Previous studies indicate that innovation in clinical practice are not strong features of the clinical learning environment and are the least developed aspect (Smedley & Morey, 2009:75; Chan, 2002:69; Midgley, 2006:338). Clinical supervision by the members of the health care team, such as doctors, is lacking and should be explored in order to distinguish whether they impact the performances of the student nurses. (Tiwaken *et al.*, 2015:73).

The study by Clare *et al.* (2003:16) highlights the lack of quality improvement programmes within the clinical learning environment. Nurse Managers' and patients' perspectives (Chan & Ip, 2007:677) on quality of the clinical learning environment are also deficient and still need to be

explored. With the increasing male population in nursing, how gender affects the experiences of student nurses in the clinical learning environment needs to be investigated (Evans, 2004:321). Legal implications of all those involved in nursing education should be reviewed (Hathorn *et al.*, 2009:243).

2.15 Summary

In this chapter, the researcher has presented an in-depth literature review about the characteristics of the clinical learning environment, including the importance of work-integrated learning in nursing education and the quality of the clinical learning environment as a critical factor in learning. The contributors to the quality of the clinical learning environment and interventions to improve the quality of the clinical learning environment have also been described. Limitations in the body of knowledge related to the quality of the clinical learning environment and measuring the quality of the clinical learning environment have been highlighted. In the next chapter research design and methodology is discussed.

CHAPTER 3 RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

In the previous chapters the background and framework of reference required for this study was described. An in-depth literature review on clinical learning environments in the last one and a half decades, challenges and concerns in the clinical learning environments, the importance of work-integrated learning and the quality of the clinical learning environment as a critical factor in learning was described.

The purpose of this chapter is to describe the research design and methodology applied in this study. This includes the research setting, study population, sampling, pilot study, data collection, data analysis and the instrument, including its validity and reliability, and the ethical issues considered in order to achieve the aim of the study.

3.2 Research Question

The research study was guided by the research question **“What is the quality of the clinical learning environment in the medical and surgical units used by a specific provincial nursing college?”**

3.3 Research Design

The design was based on the purpose of this study, which was to describe nursing students' experiences of their clinical learning environment, supervision and clinical accompaniment by nurse educators/clinical facilitators. To accomplish this, a **quantitative, descriptive and contextual design** was utilised in this study in order to describe the quality of the clinical learning environment in the medical and surgical units for public hospital placements as rated by undergraduate students allocated by a provincial nursing college.

3.3.1 Quantitative research design

In this study, the researcher investigated the quality of the clinical learning environment in medical and surgical units for public hospital placements as rated by undergraduate nurses allocated by a provincial nursing college. The researcher measured the quality of the clinical learning environment, using a survey approach, and thereafter formulated recommendations for improving the quality of the clinical learning environment by developing benchmarks that can be used to monitor clinical learning environments continuously in order to ensure optimal patient care.

3.3.2 Descriptive strategy

This study comprised a description of undergraduate students' rating of the clinical learning environment and supervision received from professional nurses working in the medical and surgical units of public hospitals, and the clinical accompaniment of the nurse teacher. The design describes the variables in order to answer the research question. In this study, the researcher identified a gap in the quality of the clinical learning environment in medical and surgical units for public hospital placements used by a public nursing college. In order to identify this gap, the researcher utilised the CLES-T instrument developed by Saarikoski *et al.* (2008:1233-1237), which was used to describe the quality of the clinical learning environment as rated by the undergraduate students allocated by a provincial nursing college.

3.3.3 Contextual strategy

This study was **contextual** and was conducted in one of the nine provinces of South Africa. In 2014 the province where the study was carried out had an estimated population of about 10.69 million people, which was the second largest in South Africa (Stats S.A: 2014). The province covers approximately 94,361 sq. km. The high disease burden and unemployment in this province mean that patients are admitted to public hospitals where undergraduate students are allocated for their clinical practica.

The nursing college consists of 11 campuses (N=442). The sample of the study was the fourth-year undergraduate students (n=200) of the four selected campuses of the province, based on the power calculation. Students completed their clinical practice and procedures in accredited medical and surgical public hospital units, under the supervision of professional nurses. The researcher has a post in one of the accredited public colleges as a Clinical Facilitator attached to the provincial, regional hospital where undergraduate students are allocated for their clinical practica and, therefore, students from this campus were excluded from the study. The researcher did not have contact with students from the other campuses.

3.4 Aim of the Study

The aim of the study was to describe and evaluate the quality of the clinical learning environment of facilities where students of a specific provincial nursing college in South Africa are placed.

3.4.1 Population

The population for this study was the nursing students in their fourth year of study at a public nursing college. The students were following the basic nurse education and training diploma programme leading, to registration as a nurse (general, psychiatric and community) and midwife, according to Regulation 425:1985 as promulgated from the Nursing Act No. 50 of 1978. Fourth

year students were selected to meet homogeneity criteria and to minimise the effects of external factors, such as different level students and clinical placement planning. Fourth year students are also considered to be the best informants, as they have sufficient overall medical and surgical clinical experience, having completed the minimum basic clinical requirements as set down by the South African Nursing Council.

The nursing college where the study took place is the only public college and has 11 campuses under it. The total number of fourth year students is 442. The distribution of fourth year students for the four-year nursing program in the province is as follows:

Campus A	N = 54
Campus B	N =30
Campus C	N =43
Campus D	N =71
Campus E	N =10
Campus F	N =56
Campus G	N =47
Campus H	N =73
Campus I	N =36
Campus J	N =22

3.4.2 Sampling method

In this study, purposive sampling of all fourth-year undergraduate students following the R425 diploma programme from the four selected campuses was used, because first, second and third year students have not yet completed their clinical practica in medical and surgical units and, therefore, may be unable to provide sufficient response regarding the quality of the clinical learning experience in these units and may not be sufficiently mature.

3.4.2.1 Sampling criteria

- Students registered at the specific Provincial College of Nursing for their fourth year of study in the R425 programme (SANC, 1985) leading to registration as a general nurse (community and psychiatry) and midwife
- Students gave informed voluntary consent

3.5 Pilot Study

The instrument was piloted on 10 students from the campus where the researcher works. The students were able to complete the questionnaire in the allotted time which was 10-20 minutes. Students asked for clarity on the occupational title of the supervisor, as there are only two categories in the public-sector hospitals, and this was rectified.

3.6 Data Collection Instrument

In this study, the CLES-T instrument by Saarikoski *et al.* (2008) was used to obtain data from the undergraduate students, to determine the quality of the clinical learning environment for undergraduate students in medical and surgical facilities for public hospital placements in this province in South Africa.

3.6.1 Data collection procedure

A structured questionnaire: The Clinical Learning Environment, Supervision and Nurse Teacher (CLES-T) Evaluation Scale (Annexure H) by Saarikoski and Leino-Kilpi (2008) was distributed to all study participants. Data collection took place at the college, where respondents' right to privacy and anonymity was fully protected. Since the researcher was at a distance at the time of data collection, a research assistant was recruited to collect data at all campuses, (see Chapter 1, section 1.8) to inform the participants about the study, to enable them to make an informed decision, and to distribute and collect the questionnaires. An information sheet was given to the participants to further explain the study (Annexure F) and was attached to the questionnaires. The participants were required to read the information sheet, sign the consent form and complete the questionnaire which took about 10-20 minutes to complete. Students were given the questionnaire when they were in a theory block. The completed questionnaires were returned, in a sealed envelope, to the researcher. The researcher accessed the data only on completion of the total collection of all the questionnaires from the various campuses. Data input was controlled. Data was stored in a locked cabinet and the computer had password and virus

3.6.2 Design and content of the questionnaire

The CLES-T questionnaire was developed by Saarikoski *et al.* (2008). The aim of the questionnaire was to assess and evaluate the quality of the clinical learning environment of placement facilities used by the province, by using students' perceptions. The focus area of evaluation was the following constructs: pedagogical atmosphere, leadership style of the ward manager, clinical teaching, learning and supervision by registered nurses and the nurse teacher.

According to Saarikoski *et al.* (2008), the underpinning approach of the CLES-T instrument was that it should be capable of illustrating the optimal state of a learning environment, supervisory relationship and the role of the nurse-teacher. The CLES-T instrument (Annexure H) is an evaluation instrument in the form of a self-report. The questions ask participants to report their attitudes or feelings on each construct. The questionnaire consists of two sections.

The **first section** contains items that require:

- Participants' demographic data i.e. age, gender, year of study
- Information about the type of wards in which students were allocated
- Duration of allocation
- Patients' average stay in the wards
- Physical and mental stress experienced by nursing staff
- Number of times the student met their course teacher during the last placement
- How satisfied the students were with their last placement.

The **second section** requires information on the clinical learning environment and supervision during the students' last clinical placement. The instrument is divided into **six dimensions**:

- Ward atmosphere (4 items)
- Leadership style of the ward manager (4 items)
- Premises of learning on the ward (6 items)
- Premises of nursing on the ward (4 items)
- Supervisory relationship (8 items)
- The role of the nurse teacher (9 items) which is divided in three subtitles:
 - (i) the nurse teacher enabling integration of theory and practice
 - (ii) cooperation between placement staff
 - (iii) Relationship between students, mentors and the nurse-teacher.

These items are rated against a five-point Likert scale. The alternatives of the Likert scale are: (1) fully disagree, (2) disagree to some extent, (3) neither agree nor disagree, (4) agree to some extent and (5) fully agree.

There is also a section on supervision, consisting of three questions, including the role of the supervisor, method of supervision and number of private supervision sessions the student had with the nursing staff.

3.7 Data Analysis

Descriptive statistics were used to analyse the data, A private statistician assisted with the analyses of the data. Statistical analyses was performed using the Statistical Package for the Social Sciences (SPSS) version 17,0 (IBM Corp, 2008) and captured on excel.

3.8 Validity of the Instrument

The CLES-T scale is a validated evaluation tool, and can be used as a part of the total quality assessment of nurse education as perceived by student nurses. The original CLES scale (Saarikoski, 2002) and the subsequent CLES-T scale (Saarikoski *et al.*, 2008) have been validated in two different empirical studies in Finland (n=416 and n=549). Since permission was obtained from the developers (Saarikoski *et al.*, 2008) of the instrument CLES-T, and administered without any major adjustments, this section reports on the original work on validity of the instrument. CLES is a compact evaluation scale, and user friendliness makes it suitable for continuing evaluation (Saarikoski, 2002:5). The instrument has been used by many countries and has been translated into various languages. The validity of CLES has been confirmed using both non-statistical methods (literature review and expert panel) and statistical methods (factor analysis and canonical correlation) (Saarikoski, 2002:264).

- **Content validity**

Content validity was obtained through extensive literature review in the area of clinical learning environment and supervision. The literature that Saarikoski reviewed included: Shailer (1990), Reed and Price (1991), English National Board (1993), Farrell & Coombes (1994), and Orton *et al.* (1994).

- **Face validity**

According to Saarikoski (2002), nine experienced nurse teachers from the University of Turku, Finland, who had ongoing relationship with clinical teaching formed the expert panel and the level of consensus was high, about 80-90%.

- **Concurrent validity**

Concurrent validity of CLES was evaluated using correlation tests between CLES and Clinical Learning Environment Inventory (CLEI) evaluation scales. CLES was developed by Dunn and Burnet in 1995. Pearson's correlation coefficient was used in the analysis of inter-correlation between sub-dimensions of the instruments. The canonical correlation was 0.9. This supports the interpretation that concurrent validity of CLES was very high (Saarikoski, 2002).

- **Construct validity**

Construct validity of the instrument was assessed using exploratory factor analysis and principal component analysis in identifying the key factors of CLES (Saarikoski *et al.*, 2008:1233).

3.9 Reliability of the Instrument

The reliability of CLES has been estimated three times

- 1) In the sample involved in the pilot study
- 2) In the test-retest
- 3) Using research data, which has been collected after the confirmation of validity and reliability.

- **Stability reliability**

Stability reliability was evaluated after the revisions made by the expert panel. Test-retest reliability was done on 38 students who had just ended their clinical placement and were asked to evaluate the learning environment and supervision of their last clinical ward placement. After a period of four weeks the students were asked to evaluate the same clinical placement they had evaluated previously. The total instrument test-retest reliability was 0.81 (Saarikoski, 2002).

- **Internal consistency**

Internal consistency of CLES was done in the initial development of the instrument in 2002. Reliability coefficients of the sub-dimensions in this sample ranged from high (0,94) to marginal (0,73) using Cronbach's alpha (Saarikoski & Leino-Kilpi, 2002:264). In 2008, an additional sub-scale to the CLES was added for measuring the quality of the nurse teachers' co-operation with the crucial actors in the clinical practice of student nurses. The reliability of each sub-dimension was analysed using Cronbach's alpha coefficient (Saarikoski *et al.*, 2008:1234). The alpha value of the role of the nurse teacher was 0.90 (Saarikoski *et al.*, 2008:1236). Reliability coefficient of the other sub-dimensions of CLES-T scale ranged from high (0.96) to marginal (0.77). These values reflect those achieved with the initial CLES scale, from 0.94 to 0.73, (Saarikoski *et al.*, 2008:1236).

Thus, the Clinical Learning Environment, Supervision and Nurse Teacher (CLES-T) Evaluation Scale is a reliable and valid instrument to evaluate the quality of the clinical learning process in international nursing education contexts (Viscaya-Moreno *et al.*, 2015:361).

3.10 Research Ethics

In order to meet the criteria for an ethical scientific study the following were complied with:

- For utilising the research instrument, permission was obtained from the author, Saarikoski (Annexure G).
- The study was submitted to the North-West University Scientific Ethics Research Committee and the Human Research Ethics Committee for approval (Annexure A and Annexure B).
- Permission was obtained from the Department of Health Ethics Committee (Annexure C).
- A written permission was obtained from the gatekeeper, the principal of the public College (Annexure D).
- Written permission was obtained from the Principals of the various campuses which participated in the study (Annexure E).
- Verbal permission was obtained from the principal of the college where the pilot study was conducted.
- Students were fully informed by mediators, a week before, about the purpose of the study, in order to make an informed decision to participate. Confidentiality and anonymity were outlined verbally. Students signed a consent form.
- Anonymity was ensured by using code numbers instead of participants' names.
- An information letter accompanied the survey questionnaire to inform the participants about the purpose of the study (Annexure F).
- The researcher was aware of the vulnerability of students and avoided direct contact between the researcher and the students. Mediators were recruited to assist with distribution and collection of questionnaires (Annexure I). This assisted in maintaining confidentiality.
- Data was collected and stored in a manner compliant with data-protection regulations.
- Results will be shared with the principals of the various campuses that participated in the study, and a copy of the results will be made available to the college library for nursing students and college staff to have access.

3.11 Conclusion

This chapter comprised an explanation of the research design and a description of the research methods employed. The study population, the research setting, the pilot study and the data collection procedure were also discussed. The research instrument utilised and its validity and reliability was reviewed. In addition, ethical issues of the study were highlighted. The next chapter elaborates on the research findings.

CHAPTER 4 DATA ANALYSIS AND RESEARCH FINDINGS

4.1 Introduction

The previous chapter dealt with the research design and methodology. In this chapter, the results of the research study are presented and interpreted. Data was analysed to describe the perceptions of a specific provincial nursing college students on the quality of the clinical learning environment, and the quality of supervision and the level of support provided by the nurse educator during the latest clinical placement. A self-administered questionnaire was used to evaluate nursing students' perceptions. The response rate, results of demographic data, data from latest clinical placement on pedagogical atmosphere, leadership style of the operational manager, philosophic grounding of nursing care in the ward, the premises of learning on the ward, the supervisory relationship and the role of the nurse educator/clinical facilitator were analysed. Data collected on the role of the supervisor, the method of supervision, the content of the supervisory relationship, the nurse educator as enabling the integration of theory and practice, co-operation between placement staff and nurse educator/ facilitator and relationship among student, facilitator and nurse educator was also analysed, all within the context of the clinical learning environment used by provincial nursing college students.

4.2 Approach to Data Analysis

A predominantly quantitative approach was applied to analyse the data. The clinical learning environment, supervision and nurse teacher scale (CLES-T) which included Likert-type questions was used. Data collected was assigned a unique numeric code and manually keyed into Excel templates, prior to analysis to facilitate the matching of data. The data accuracy and statistical analyses were conducted with the Statistical Package for the Social Sciences version 17,0 (IBM Corp.2008) via a statistical consultation service. Tests used in the analysis were as follows:

- Descriptive statistics including means and standard deviations, where applicable. Frequencies are represented in tables or graphs.
- Kruskal Wallis Test: Non-parametric equivalent to ANOVA. A test for several independent samples that compares two or more groups of cases in one variable.
- Binomial test: Tests whether a significant proportion of respondents select one of a possible two responses. This can be extended when data with more than 2 response options is split into two distinct groups.
- Pearson's correlation: Correlations measure how variables or rank orders are related. Pearson's correlation coefficient is a measure of linear association.

- One sample t-test: Tests whether a mean score is significantly different from a scalar value.
- Independent samples t-test: A test that compares two independent groups of cases.
- The reliability and validity of the data were established to determine whether the research study findings were reliable and valid. Graphs and tables were applied to enhance interpretation.
- A qualitative content analysis (Polit & Beck, 2017) was performed on the open-ended question at the end of the questionnaire.

4.3 The program leading to registration as a registered nurse in General, Psychiatric, Community Nursing and Midwifery

The R425 Diploma in nursing is a comprehensive programme, consisting of four (4) academic years leading to registration as a registered nurse in General, Psychiatry, Community Nursing and Midwifery. The curriculum consists of a combination of 60% theory and 40% practical. The block allocation and modular system is used. The clinical facilitator model (Department of Health, 2012:57) has been utilised since 2012. Clinical facilitators are registered nurses with Nursing Education qualifications, employed by the nursing college.

Clinical practice in the first year consists of fundamental nursing science, the next two years consist of General nursing. Community nursing science is done over the first three years. Nursing Management is done in the last semester of the third year. Midwifery is done in the first semester of the fourth year and psychiatric nursing in the final semester of the 4-year course. The minimum total for practica for all disciplines is 4000 hours. Throughout the clinical placements, students experience acute, chronic/long term care, in-patient, outpatient and community care of all patients of all age groups, including paediatrics, adults and geriatrics.

4.4 Results and Discussion

4.4.1 Demographic characteristics

This section presents a discussion of the variables of institution, age, gender, race, previous hospital nursing experience and repetition of years or semester of study in the 4-year course.

4.4.1.1 Variable 1: Institution

The provincial College of Nursing, which is the only public college, consists of 11 campuses. The original data was collected from four campuses of the provincial College of Nursing. The principals of the four campuses gave written approval for the study to be carried out. The study population consisted of all fourth-year students of the four campuses of the provincial College of Nursing.

The campuses that were included in the study were campuses A, B, C & D whilst G was the campus piloted. The students were asked to respond to the questions according to their most recent placement in medical or surgical units, according to their education program at the time of the completion of the questionnaire.

Out of a total of 200 questionnaires, 178 answered the questionnaire, which gave a response rate of 89%. Of the participants, the majority (33.1%) were from Campus D, followed by Campus A with 29.2%, Campus C with 21.3% and Campus B with 16.3%. The sample consists of 41% of the total 4th year students of the provincial public College of Nursing as illustrated in the pie graph below.

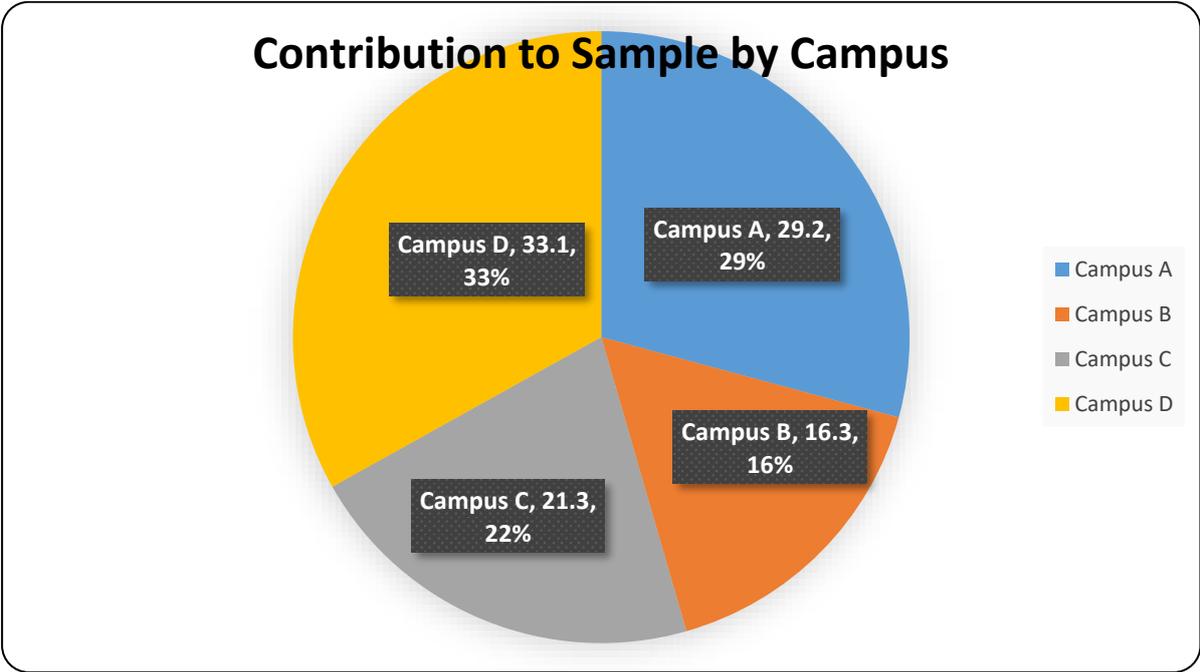


Figure 4.1: Contribution to Sample by Campus

4.4.1.2 Variable 2: Age

The age groups ranged from younger than 20 years, through 20-29 years, 30-39 years, to 40 years and older. The findings revealed that 1.7% (n=3) were in the age group of younger than 20 years, 73.6% (n=131) were between 20-29 years, 23% (n=41) were between 30-39 years, and 1.7% (n=3) were 40 years and older.

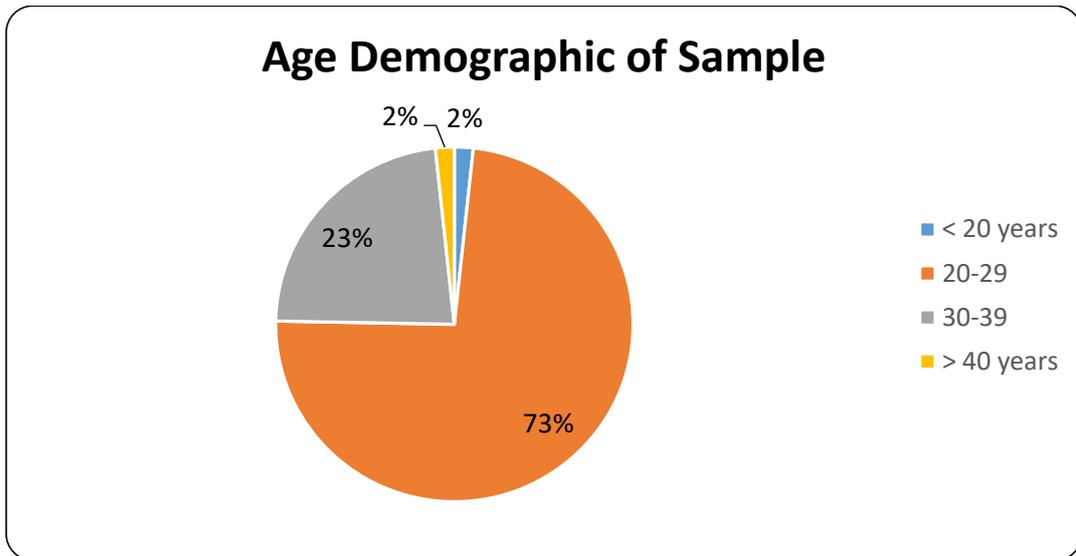


Figure 4.2: Age Demographic of Sample

4.4.1.3 Variable 3: Gender

The results showed that 20.2% (n=36) were male and 79.8% (n=142) were female.

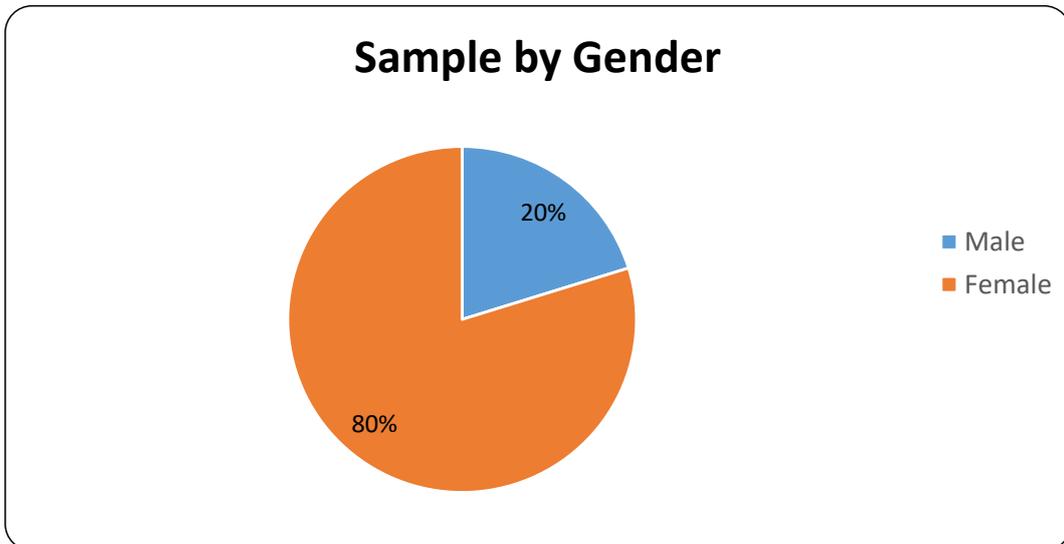


Figure 4.3: Sample by Gender

4.4.1.4 Variable 4: Race

The results showed that the majority of students (71.9%) were black, followed by Asians (21.9%) and coloureds (6.2%).

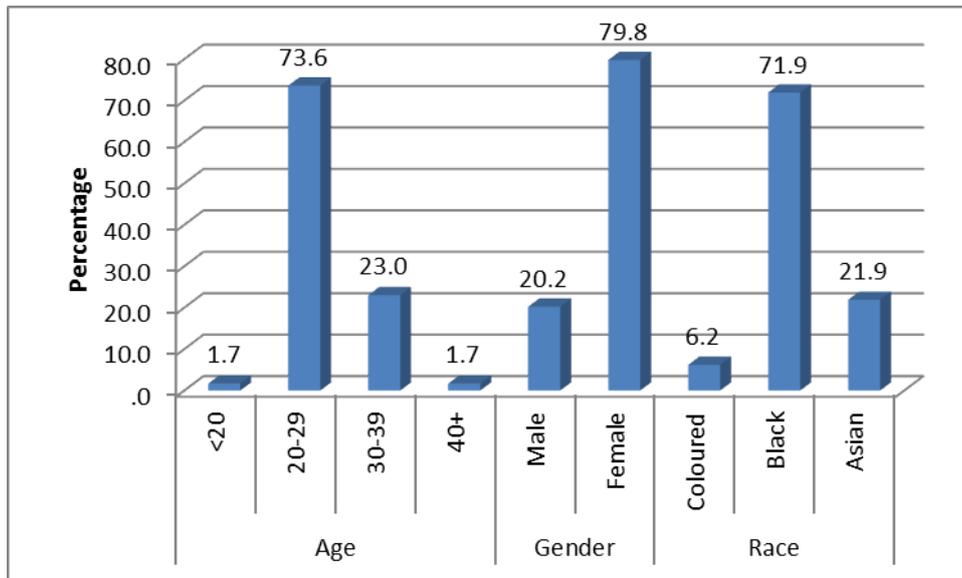


Figure 4.4: Age, Gender and Race of sample

4.4.1.5 Variable 5: Previous hospital nursing experience

Only 17.4 % (n=31) had previous hospital nursing experience before commencement of the 4-year diploma course, whilst majority 82.6 % (n=147) had no previous hospital nursing experience.

4.4.1.6 Variable 6: Repetition of years or semester of study in the 4-year course

Only 12.9% (n=23) of nursing students repeated semester/s or any years of the course whilst the majority 87.1% (n=155) had passed throughout the course.

4.4.2 Latest clinical placement

This section presents a discussion of the latest clinical placement variables including the type of wards that student nurses were allocated to, duration of placement, nurse educator / lecturers' visits to the clinical placement area, student satisfaction with the most recent clinical placement, duration of patients stay in the ward and physical and mental stress of the nursing staff.

4.4.2.1 Variable 7: Type of ward

The respondents indicated the type of ward they were allocated to during the last clinical placement, and the length of stay in that ward. Most of the students were in medical wards 60.1% (n=107) in the last placement, whilst 39.9% (n=71) were in surgical wards. The bar graph below illustrates the results.

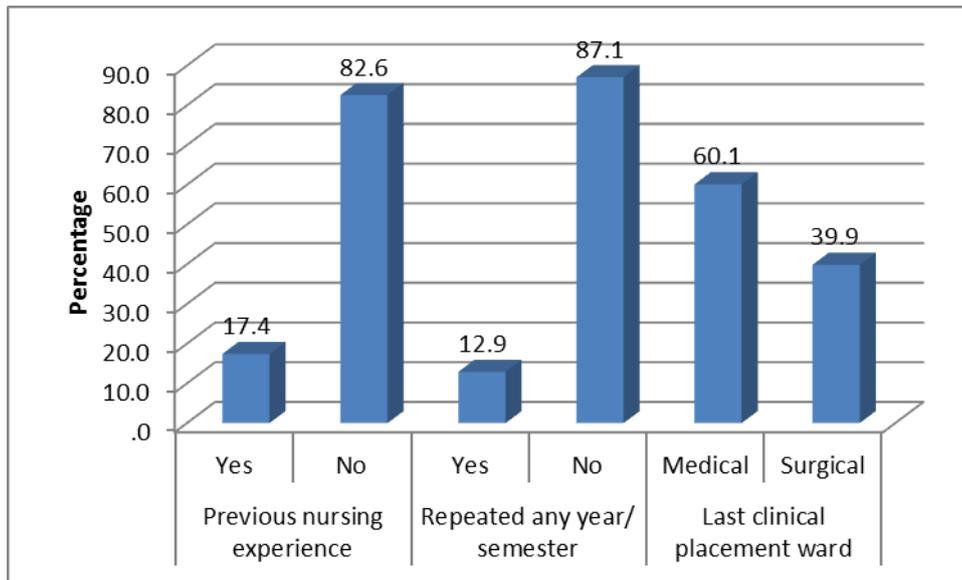


Figure 4.5: Experience and Clinical Placement

4.4.2.2 Variable 8: Duration of placement in weeks

The study results revealed that the duration of placement amongst the four campuses varied from 1-12 weeks. The mean duration in the last placement was 3.45 weeks.

4.4.2.3 Variable 9: Nurse Educator/lecturers visits to the clinical placement area

The participants indicated the number of times they met the nurse educator/lecturer during the last clinical placement; this varied from 0-10 times. The mean number of meetings was 2.13 times. 4% (n=7) of the participants indicated that they were visited by the nurse educator/lecturer for assessment only whilst 1.68% (n=3) omitted to answer the question.

4.4.2.4 Variable 10: Student satisfaction with the most recent clinical placement

The participants revealed how satisfied they were with their latest clinical placement. The bar graph below illustrates the results.

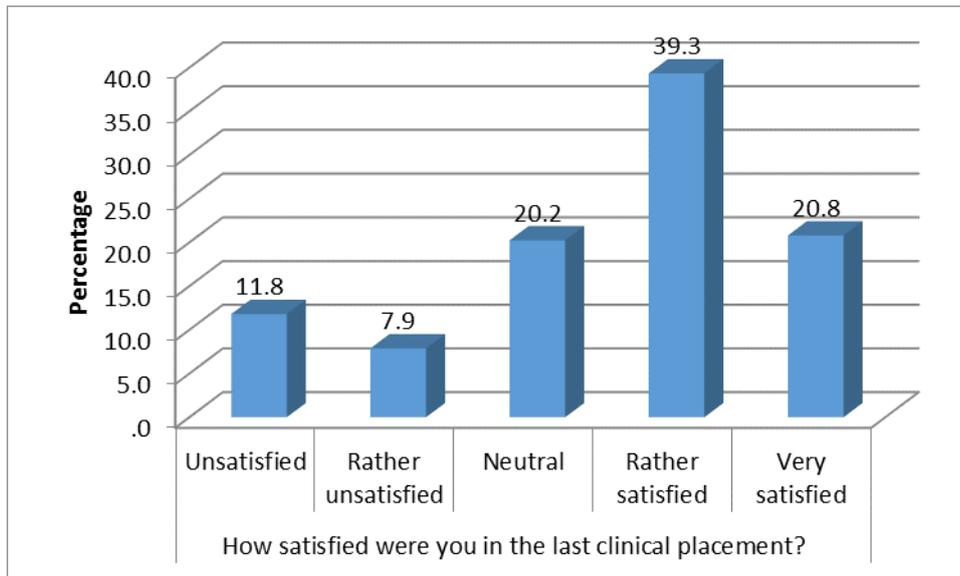


Figure 4.6: Student satisfaction levels with most recent clinical placement

The results revealed that 11.8% (n=21) were unsatisfied with their clinical experience, 7.9% (n=14) were rather unsatisfied, 20.2% (n=36) were neither satisfied nor unsatisfied, 39.3% (n=70) were rather satisfied and 20.8% (n=37) were very satisfied. These results show that 60.1% (n=107) were satisfied and 39.9% (n=71) were unsatisfied with their latest placements. A one-sample t-test was applied to determine if there was any significant satisfaction or dissatisfaction. The results show that there is significant satisfaction (Mean = 3.49; standard deviation = 1.241) with the last clinical placement ($t [177] = 5.316, p < 0.0005$).

4.4.2.5 Variable 11: Duration of patients stay in the ward

This refers to the patients' stay in the ward, according to the condition of a specific patient. In this study, 12.4% (n=22) of the respondents indicated that the patients' stay was for a few days, 37.6% of the respondents (n=67) indicated that patients stay for 1-2 weeks, 31.5% (n=56) indicated that patients stay for 3-4 weeks and 18.5% (n=33) reported that patients stay for more than a month, as indicated in the bar graph below.

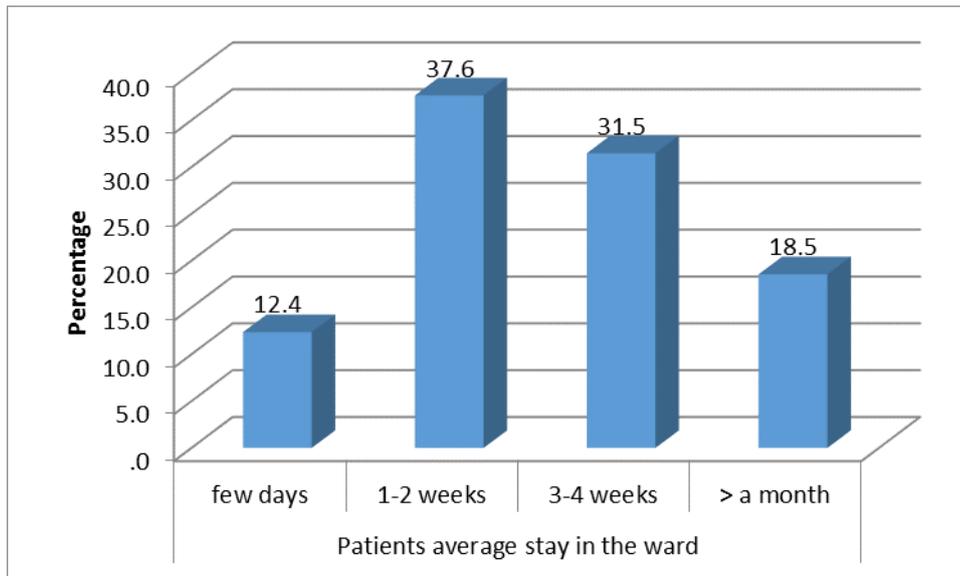


Figure 4.7: Patients' average stay in the ward

4.4.2.6 Variable 12: Physical and mental stress of the nursing staff

Physical stress can impact significantly on staff performance, and affect quality of nursing care and supervision and teaching of students. In this study, the majority of the participants (46.6%, n=83) observed that nurses in their ward showed high physical stress, 20.8% (n=37) of the participants observed very high physical stress, while 27.5% (n=49) observed that nurses in their ward showed low physical stress and 5.1% (n=9) of the participants observed that nurses in their ward showed no signs of physical stress. Mental stress can also impact on staff in the same way as physical stress, and can hamper staff performance considerably. The majority of the participants (47.2%, n=84) observed that nurses in their ward showed high mental stress, 11.8% (n=21) reported that they observed very high mental stress, 35.4% (n=63) reported that they observed low mental stress and 5.6% (n=10) indicated no mental stress. The bar graph below illustrates the results.

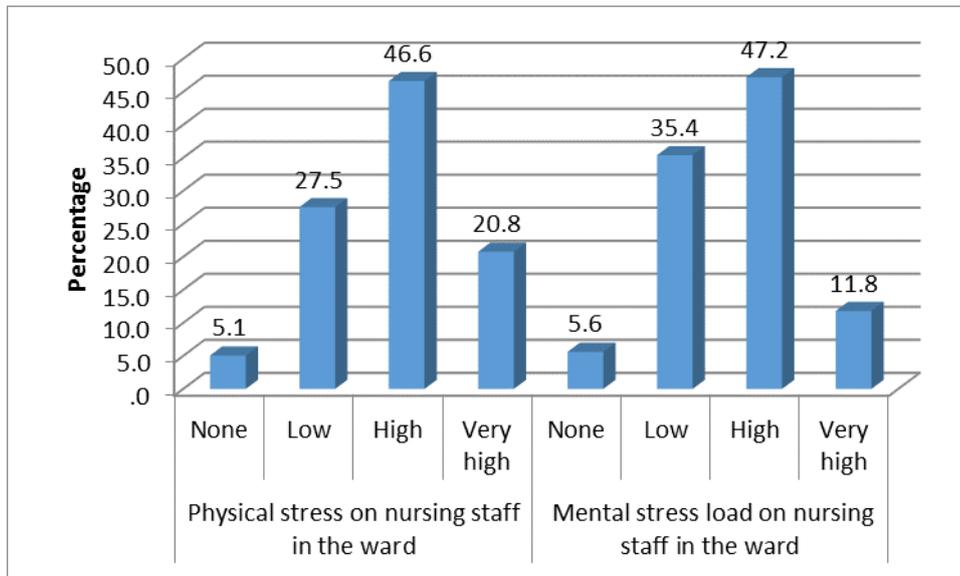


Figure 4.8: Physical and mental stress of the nursing staff

A binomial test was done to ascertain if a significant proportion of nursing staff experience high or very high stress. A significant 67% experienced physical stress ($p < 0.0005$); while a significant 59% experienced mental stress ($p = 0.020$).

4.4.3 Quality of the clinical learning environment, supervision and nurse educator evaluation

In this section the variables of pedagogical atmosphere, premises of learning on the ward, leadership style of the unit manager, philosophical grounding of nursing care on the ward, supervisory relationship and role of the nurse educator/clinical facilitator will be discussed.

4.4.3.1 Pedagogical atmosphere

The pedagogical atmosphere included students' interpersonal relationships with staff, students' level of anxiety, student involvement and whether the pedagogical atmosphere was optimal for learning. The majority of the participants (66.8%, $n = 119$) reported that the nursing staff were easy to approach, whilst 58.4% ($n = 104$) of the participants felt comfortable going to the ward at the start of the shift, 53.4% ($n = 95$) felt comfortable to participate in the clinical meetings and 53.9% ($n = 96$) reported that there was a positive atmosphere in the unit. The bar graph below illustrates the mean scores from the One-Sample Statistics on the pedagogical atmosphere.

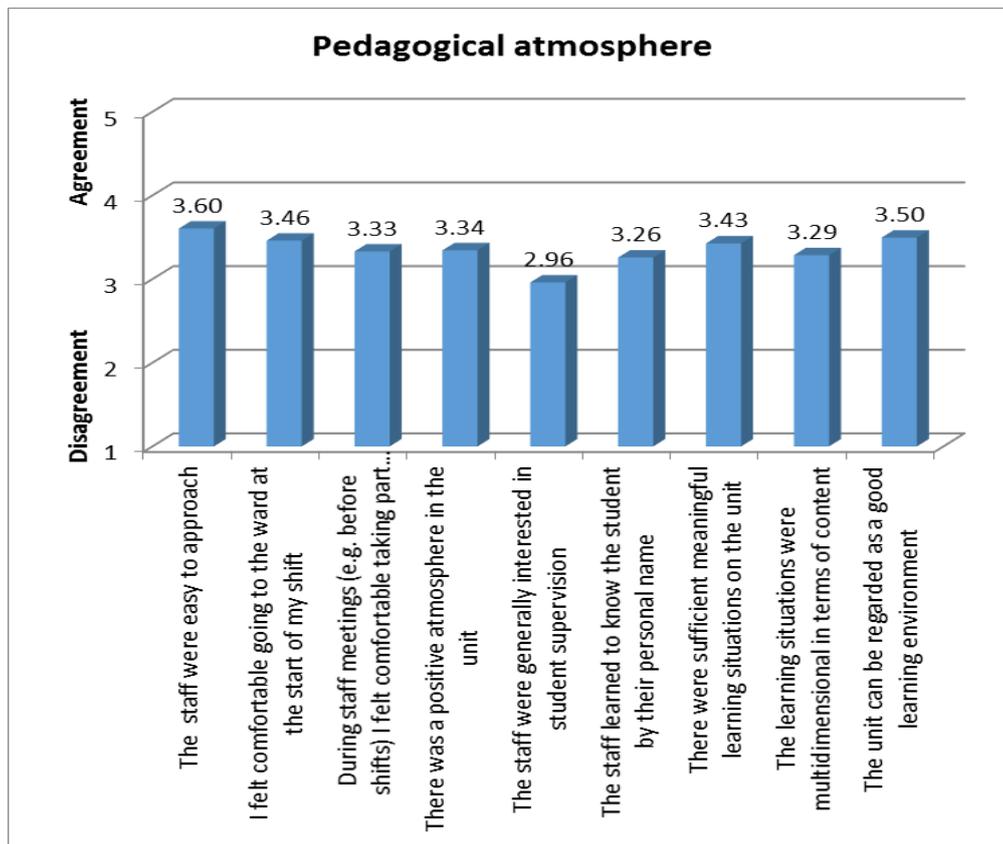


Figure 4.9: Pedagogical atmosphere

4.4.3.2 Premises of learning on the ward

Participants reported on staff commitment to student supervision, personalization of students, exposure to adequate learning opportunities in the ward and whether they were beneficial to them. In this study, 42.7% (n=76) of the participants reported that the staff were generally interested in student supervision, whilst 55.1% (n=98) reported that the staff learned to know the student by their personal name. The majority of the students (60.1%, n=107) agreed that there were sufficient meaningful learning situations on the unit, 52.3% (n=93) agreed that the learning situations were multidimensional in terms of content and 62.4% (n=111) agreed that the unit can be regarded as a good learning environment.

On application of a one-sample t-test to test whether there was significant agreement or disagreement, the results were as follows:

There was significant agreement that:

- Staff were easy to approach (Mean = 3.60, Standard Deviation = 1.173, $t(176) = 6.854$, $p < 0.0005$)
- Student nurses felt comfortable going to the ward at the start of the shift (Mean = 3.46, Standard Deviation = 1.315, $t(177) = 4.673$, $p < 0.0005$)
- During staff meetings (e.g. before shifts) students felt comfortable taking part in the discussions (Mean = 3.33, Standard Deviation = 1.279, $t(177) = 3.458$, $p < 0.001$)
- There was a positive atmosphere in the unit (Mean = 3.34, Standard Deviation = 1.284), $t(173) = 3.542$, $p < 0.001$)
- The staff learned to know the student by their personal name (Mean = 3.26, Standard Deviation = 1.504, $t(177) = 2.293$, $p < 0.023$)
- There were sufficient meaningful learning situations on the unit (Mean = 3.43, Standard Deviation = 1.283, $t(177) = 4.438$, $p < 0.0005$)
- The learning situations were multidimensional in terms of content (Mean = 3.29, Standard Deviation = 1.136, $t(177) = 3.365$, $p < 0.001$)
- The unit can be regarded as a good learning environment (Mean = 3.50, Standard Deviation = 1.353, $t(176) = 4.888$, $p < 0.0005$).

4.4.3.3 Leadership style of the operational manager

The leadership style of the operational manager plays a pivotal role in the clinical learning of students in the ward. Here students rated their perceptions on how the operational manager regarded the staff in the ward, and whether she appreciated their individual efforts, whether the operational manager was also a part of the nursing team, whether the operational manager provided feedback, whether the feedback was constructive and impacted on learning.

In this study, the results show that 69.1% ($n=123$) of the participants agreed that the operational manager regarded the staff on the ward as key resources. It was also agreed by 69.7% ($n=124$) of respondents that the operational manager was part of the team; 75.8% ($n=135$) agreed that the feedback from the operational manager (OM) could easily be considered as a learning situation, and a further 65.7% ($n=117$) agreed that the effort of individual employees was appreciated. The bar graph below illustrates the mean scores from the One-Sample Statistics on the leadership style of the operational manager.

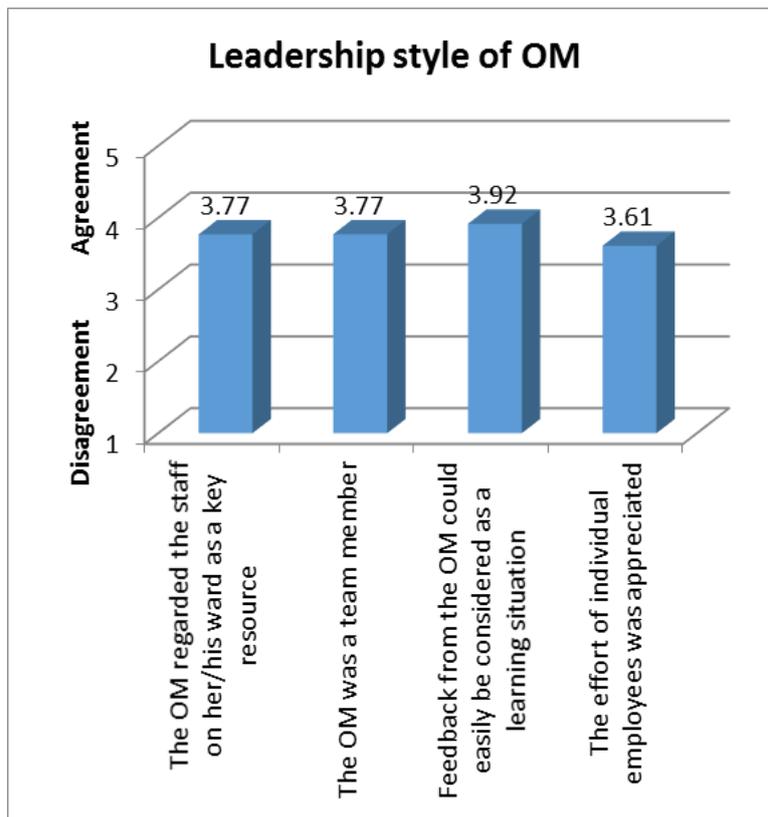


Figure 4.10: Leadership style of the operational manager (OM)

On application of a one-sample t-test to test whether there was significant agreement or disagreement, the results were as follows:

There was significant agreement that:

- The Operational Manager (OM) regarded the staff on her/his ward as a key resource (Mean = 3.77, Standard Deviation = 1.200, $t(176) = 8.518$, $p < 0.0005$)
- The Operational Manager (OM) was a team member (Mean = 3.77, Standard Deviation = 1.279, $t(177) = 8.028$, $p < 0.0005$)
- Feedback from the Operational Manager (OM) could easily be considered as a learning situation (Mean = 3.92, Standard Deviation = 1.144, $t(177) = 10.677$, $p < 0.0005$)
- The effort of individual employees was appreciated (Mean = 3.61, Standard Deviation = 1.243, $t(176) = 6.529$, $p < 0.0005$).

4.4.3.4 Philosophical grounding of nursing care on the ward

The participants reported their experience in the ward regarding the nursing care given to patients. They rated whether the nursing philosophy was clearly defined, whether patients received individualised nursing care or not, whether there were any problems in communication related to patients' care and whether the documentation of nursing was clear. In this study, 24.1% (n=43)

indicated that the nursing philosophy was not clearly defined. With regards to the quality of nursing care on the ward, the majority (73%, n=130) reported that the patients received individualised care, 68% (n=121) reported that there were no problems in communication related to patients' care, and a further 73.6% (n=131) reported that the documentation of nursing care was clear. The bar graph below illustrates the mean scores from the One-Sample Statistics of the nursing care on the ward.

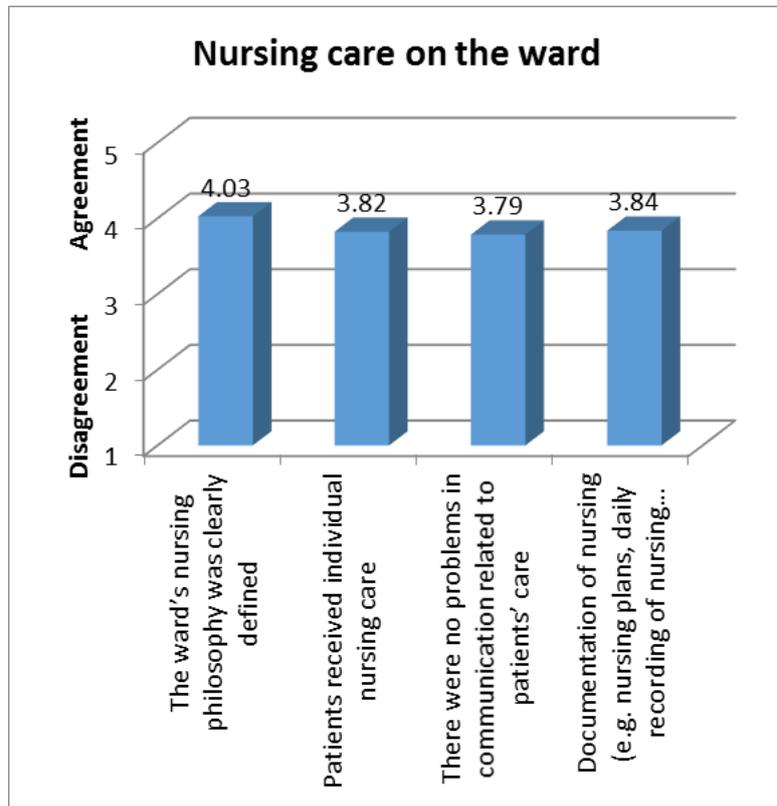


Figure 4.11: Nursing care on the ward

On application of a one-sample t-test to test whether there was significant agreement or disagreement, the results were as follows:

There was significant agreement that:

- The ward's nursing philosophy was clearly defined (Mean = 4.03, Standard Deviation = 1.142, $t(177) = 12.010$, $p < 0.0005$)
- Patients received individual nursing care (Mean = 3.82, Standard Deviation = 1.205, $t(176) = 9.107$, $p < 0.0005$)
- There were no problems in communication related to patients' care (Mean = 3.79, Standard Deviation = 1.162, $t(176) = 8.988$, $p < 0.0005$)

- Documentation of nursing (e.g. nursing plans, daily recording of nursing procedures etc.) was clear (Mean = 3.84, Standard Deviation = 1.289, $t(177) = 8.661$, $p < 0.0005$).

4.4.4 Supervisory relationship

In this section the occupational title of the supervisor, the method of supervision, other methods of supervision, separate (private) supervision sessions with the supervisor (without the nurse educator) and supervisory relationship will be discussed.

4.4.4.1 Occupational title of the supervisor

Students were supervised by nurses with different qualifications and roles. In this study, 56.2% (n=100) were supervised by registered nurses, 37.1% (n=66) were supervised by the operational manager, 2.8% (n=5) were supervised by both the registered nurse and the operational manager and 2.2% (n=4) were supervised by other staff. The pie graph below illustrates the percentage of staff supervision.

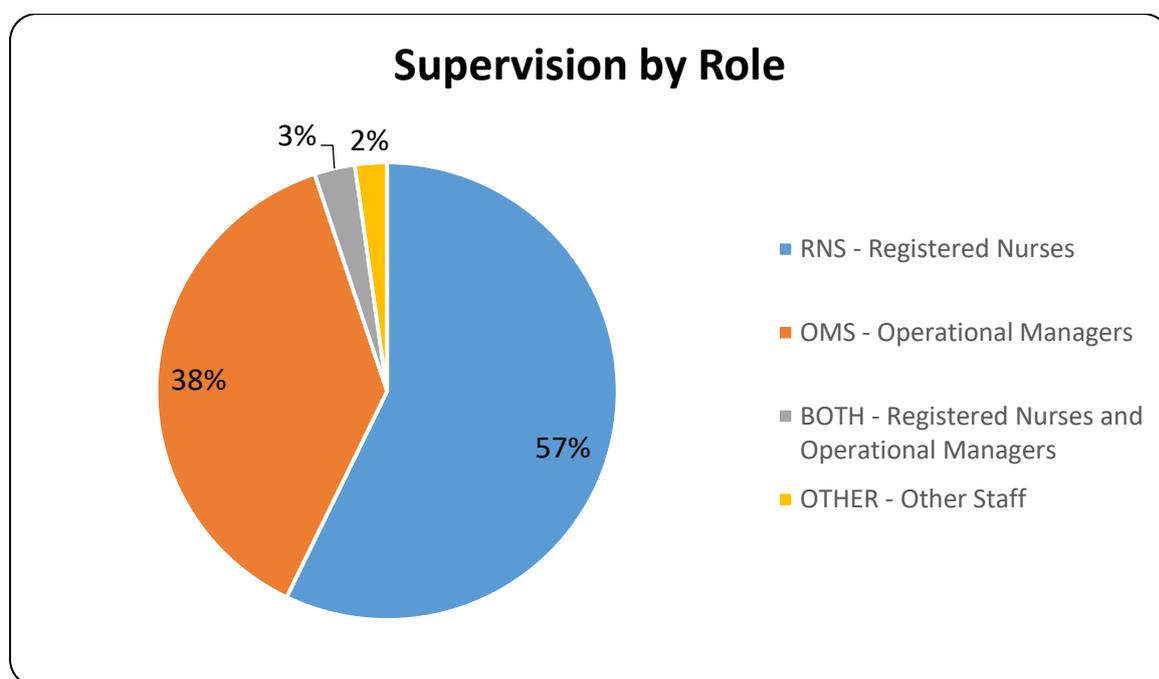


Figure 4.12: Supervision by Role

4.4.4.2 Method of supervision

The results revealed that there were different methods used to supervise the students. Statements 33, 34 and 35 on the questionnaire were grouped together because they indicate unsuccessful supervisory experiences and statements 36 and 37 were grouped together because they indicate group supervision. The results indicate that 3.5% (n=24) experienced unsuccessful supervision, 74.2% (n=132) experienced group supervision, whilst 11.2% (n=20) experienced

individual supervision. The bar graph below illustrates the percentages on the method of supervision in the ward.

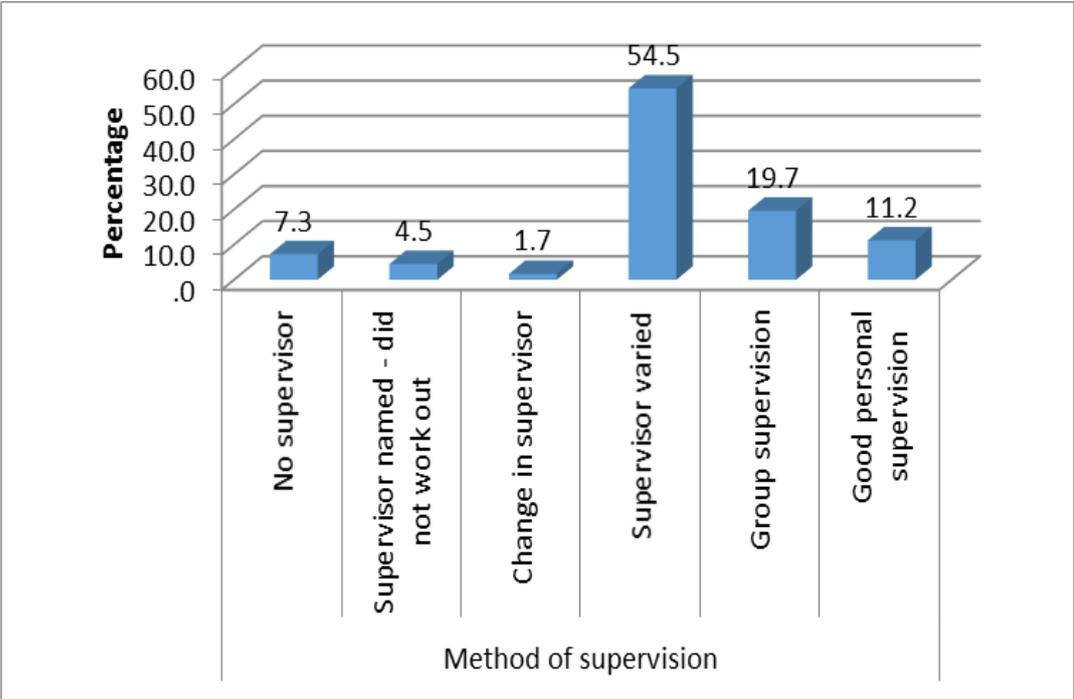


Figure 4.13: Method of Supervision

4.4.4.3 Other methods of supervision

In the open question on any other method of supervision, 14% (n=25) of participants did not answer the question, whilst 85.9% (n=153) answered the question. The majority of the participants (43.7%, n=67) reported that they had indirect supervision, whilst 11% (n=17) had peer group supervision, 1.3% (n=2) were supervised by clinical facilitators, 7.1% (n=11) had direct supervision, 1.3% (n=2) had group supervision, and 0.65% (n=1) had supervision by other staff. Participants also reported a combination of supervision: indirect/peer supervision 1.96% (n=3), clinical facilitator/peer 0.65% (n=1), direct/peer 1.3%(n=2), and direct/indirect 2.6% (n=4). A proportion of 26.7% (n=41) stated that they had no other method of supervision.

4.4.4.4 Separate (private) supervision sessions with the supervisor (without the nurse educator)

In this study, 34.8% (n=62) of the participants indicated that they did not have any separate supervision sessions at all, 29.8% (n=53) had supervision sessions once or twice during the course of the placement, 9% (n=16) had supervision sessions once a month during the course of the placement, 15.2% (n=27) had supervision sessions once a week during the course of the placement and 11.2% (n=20) had the sessions more often.

The bar graph below illustrates the percentage of separate (private) supervision sessions with the supervisor (without the nurse educator).

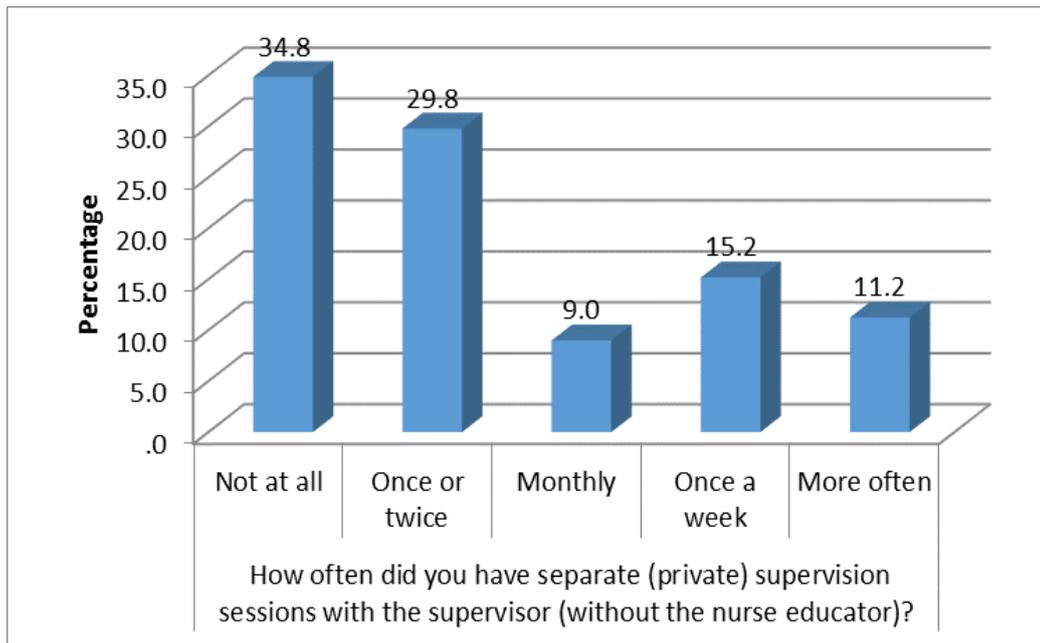


Figure 4.14: Frequency of separate (private) supervision

4.4.4.5 Supervisory relationship

Students assessed their relationship with their supervisor based on their attitude towards supervision, quality of supervision and feedback, and the characteristics of the student staff relationship towards supervision. The majority of the participants (66.9%, n=119) agreed that the supervisor showed a positive attitude towards supervision, 60.7 % (n=108) agreed that the supervision was based on a relationship of equality and promoted their learning and 63.5% (n=113) agreed that mutual respect prevailed in the supervisory relationship. However, more than half (52.2%, n=93) reported that they did not receive individual supervision.

On application of a one-sample t-test to test whether there was significant agreement or disagreement, the results were as follows:

There was significant agreement that:

- The supervisor showed a positive attitude towards supervision (Mean = 3.69, Standard Deviation = 1.285, $t(177) = 7.115$, $p < 0.0005$)
- Overall satisfaction with the supervision received (Mean = 3.29, Standard Deviation = 1.481, $t(177) = 2.581$, $p < 0.011$)
- The supervision was based on a relationship of equality and promoted learning (Mean = 3.45, Standard Deviation = 1.365), $t(176) = 4.351$, $p < 0.0005$)

- There was a mutual interaction in the supervisory relationship (Mean = 3.44, Standard Deviation = 1.323, $t(177) = 4.475$, $p < 0.0005$)
- Mutual respect prevailed in the supervisory relationship (Mean = 3.58, Standard Deviation = 1.300, $t(176) = 5.900$, $p < 0.0005$)
- The supervisory relationship was characterized by a sense of trust (Mean = 3.55, Standard Deviation = 1.328, $t(177) = 5.532$, $p < 0.0005$). the bar graph below illustrates the mean scores from the One Sample Statistics on the content of the supervisory relationship.

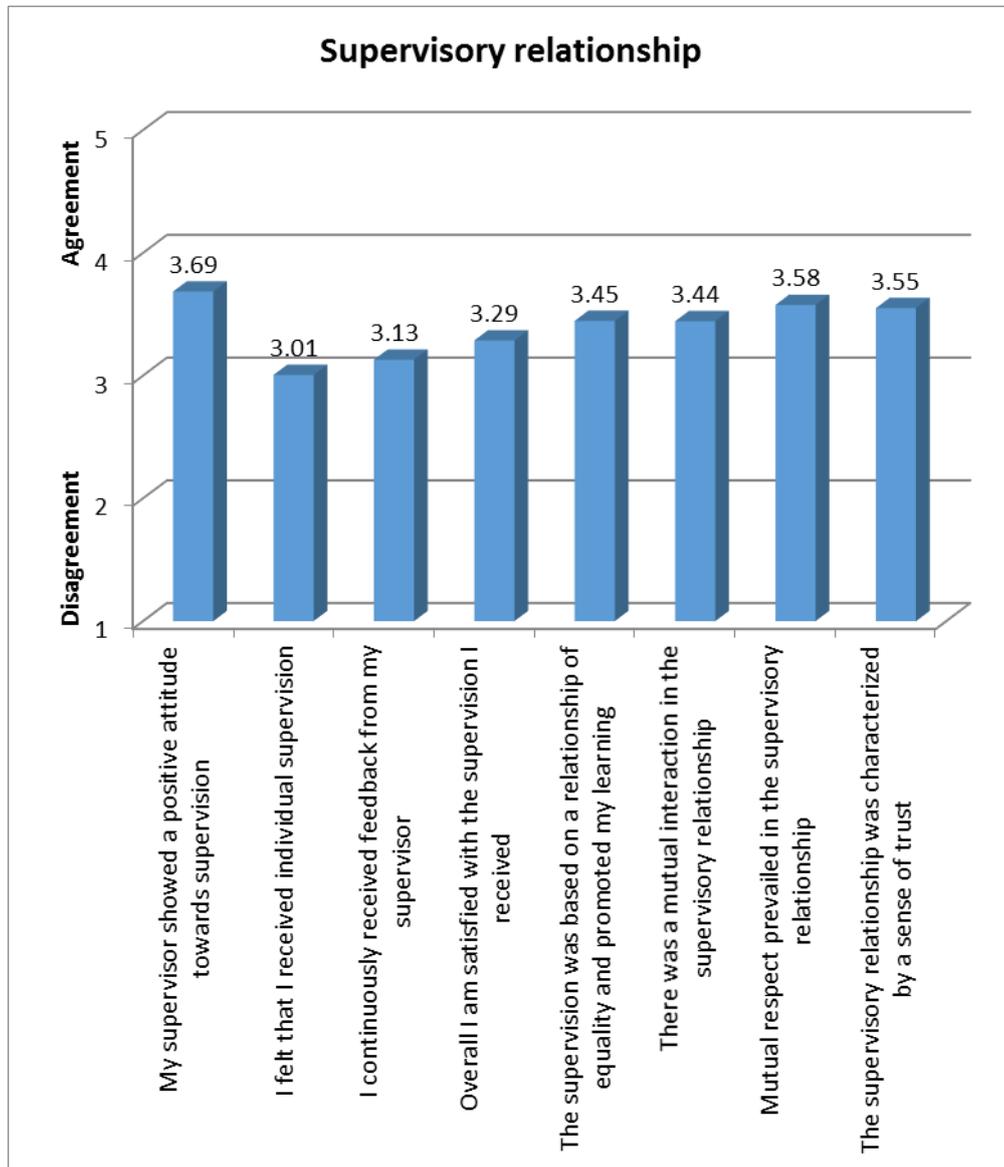


Figure 4.15: Supervisory relationship

4.4.5 Role of the nurse educator/clinical facilitator

In this section the following variables will be discussed viz. the nurse educator as enabling the integration of theory and practice, cooperation between placement staff and nurse educator and relationship among student, facilitator and educator

4.4.5.1 Nurse educator as enabling the integration of theory and practice

The nurse educator/clinical facilitator plays a crucial role in the integration of theory and practice. In this study, participants evaluated the effectiveness of the nurse educator/clinical facilitator in their role of integrating theory with practice, and their ability to operationalise the learning goals in the clinical placement and reduce the theory-practice gap. In this study, the majority of the participants (78%, n=139) agreed that the nurse educator/facilitator was capable of integrating theoretical knowledge and everyday practice of nursing, 73.1% (n=130) agreed that the nurse educator/facilitator was capable of operationalising the learning goals of this clinical placement and 75.8% (n= 135) agreed that the nurse educator/facilitator helped to reduce the theory-practice gap.

On application of a one-sample t-test to test whether there was significant agreement or disagreement, the results were as follows:

There was significant agreement that:

- The nurse educator/facilitator was capable to integrate theoretical knowledge and everyday practice of nursing (Mean = 3.94, Standard Deviation = 1.175, $t(177) = 10.654$, $p < 0.0005$)
- The nurse educator/facilitator was capable to operationalise the learning goals of this clinical placement (Mean = 3.90, Standard Deviation = 1.160, $t(177) = 10.338$, $p < 0.0005$)
- The nurse educator/facilitator helped me to reduce the theory-practice gap (Mean = 3.85, Standard Deviation = 1.1226, $t(177) = 9.290$, $p < 0.0005$). the bar graph below illustrates the results.

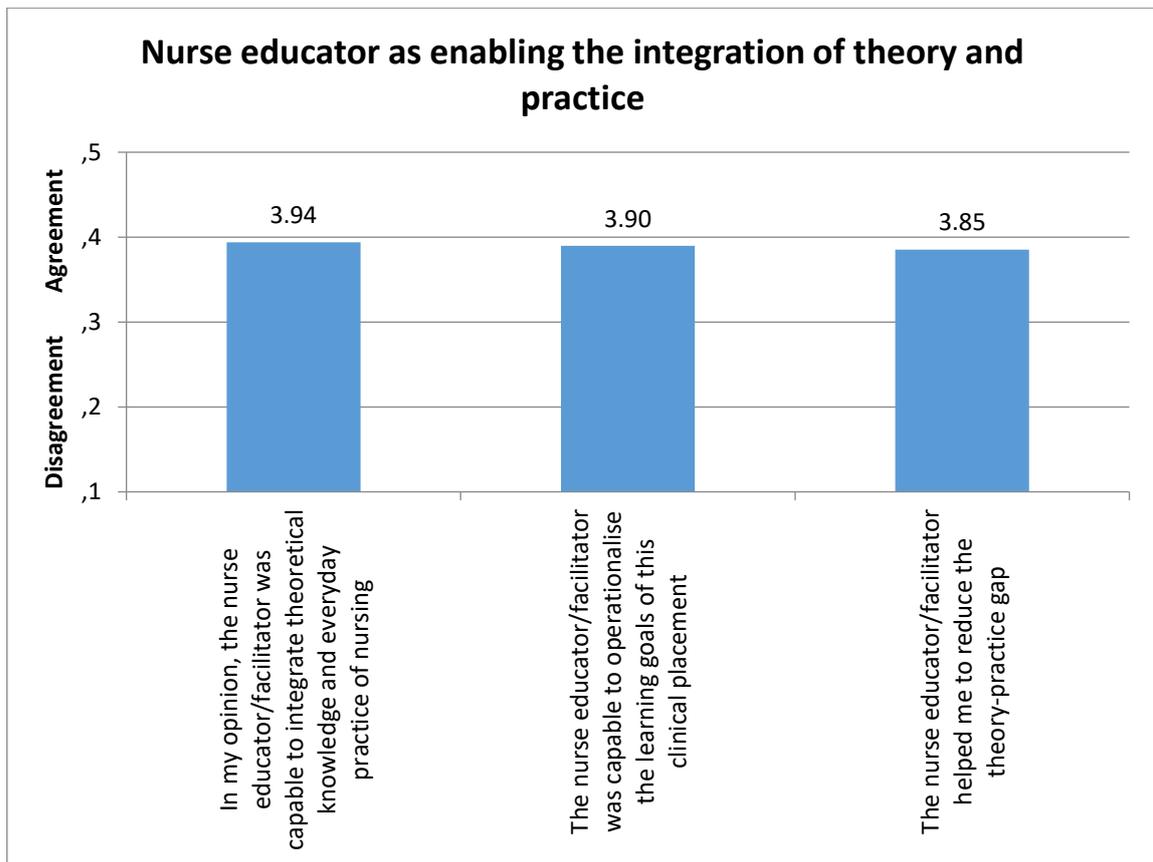


Figure 4.16: Nurse educator as enabling the integration of theory and practice

4.4.5.2 Cooperation between placement staff and nurse educator

Cooperation between placement staff and nurse educator enhances the quality of the clinical learning environment. Participants rated whether the nurse educator/facilitator was like a member of the nursing team, whether the nurse educator/facilitator was capable to give his or her pedagogical expertise to the clinical team and whether the nurse educator/facilitator and the clinical team worked together in supporting student learning. In this study, only 59% (n=105) of the participants agreed that the nurse educator/facilitator was like a member of the nursing team, 64.1% (n=114) agreed that the nurse educator/facilitator was capable to give his or her pedagogical expertise to the clinical team and 59% (n=105) agreed that the nurse educator/facilitator and the clinical team worked together in supporting student learning.

On application of a one-sample t-test to test whether there was significant agreement or disagreement, the results were as follows:

There was significant agreement that:

- Nurse educator/facilitator was like a member of the nursing team (Mean = 3.38, Standard Deviation = 1.393, $t(176) = 3.615$, $p < 0.0005$)
- Nurse educator/facilitator was capable to give his or her pedagogical expertise to the clinical team (Mean = 3.57, Standard Deviation = 1.257, $t(177) = 6.022$, $p < 0.0005$)
- The nurse educator/facilitator and the clinical team worked together in supporting my learning (Mean = 3.47, Standard Deviation = 1.333, $t(177) = 4.724$, $p < 0.0005$).

The bar graph below illustrates the results.

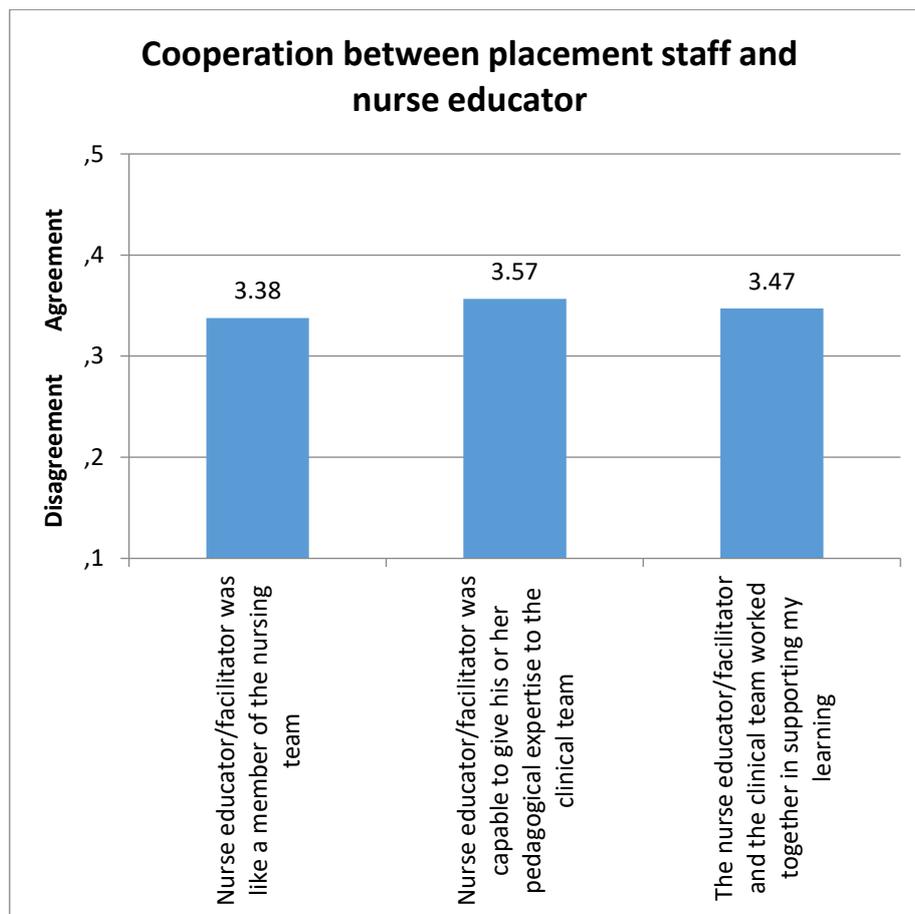


Figure 4.17: Cooperation between placement staff and nurse educator

4.4.5.3 Relationship among student, facilitator and educator

Positive relationships among student, facilitator and nurse educator enhances the quality of the clinical learning environment. Participants evaluated the interactions between themselves, the facilitator and the nurse educator as well as the type of relationship and whether the focus of the meetings was on the students' learning needs or not. In this study, only 59.5% ($n=106$) agreed that the meetings between themselves, the facilitator and the nurse educator was a comfortable

experience, 63.5% (n=113) agreed that the focus of the meetings was on the students' learning needs. However, 59.5% of participants disagreed that in their common meetings they were colleagues.

On application of a one-sample t-test to test whether there was significant agreement or disagreement, the results were as follows:

There was significant agreement that:

- The meetings between myself, facilitator and nurse educator were a comfortable experience (Mean = 3.58, Standard Deviation = 1.199, $t(171) = 6.359$, $p < 0.0005$)
- The focus of the meetings was on my learning needs (Mean = 3.61, Standard Deviation = 1.340, $t(176) = 6.057$, $p < 0.0005$).

The bar graph below illustrates the results.

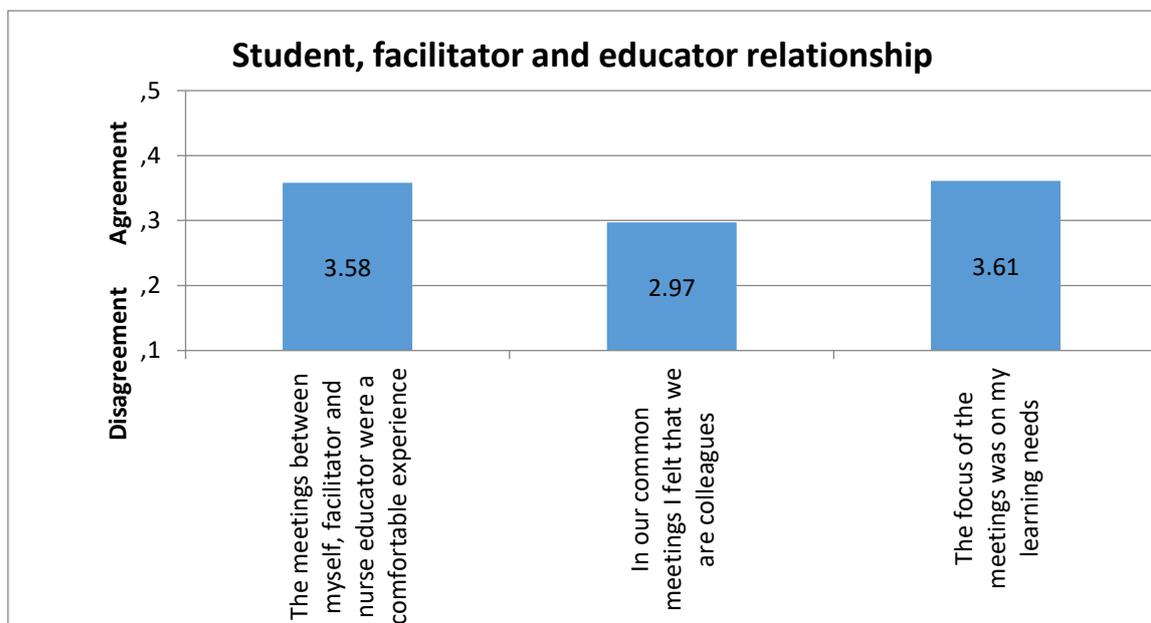


Figure 4.18: Student, facilitator and educator relationship

4.4.6 Validity and reliability

The next section discusses the reliability and validity of the clinical learning environment, supervision and nurse teacher scale (CLES-T) instrument's results in this study.

4.4.6.1 Validity of the study

During this research study an internationally validated questionnaire was used. However, it was vital to ensure that the instrument was applicable to the South African context. Questions 14-30

were analysed for construct validity, using factor analysis with a varimax rotation (Costello & Osborne, 2005:173-178) . Results below show that construct validity exists.

Sample adequacy was confirmed by means of the Kaiser-Meyer-Olkin (KMO) test (0.908) and Bartlett's test of sphericity (approximate Chi-Square = 1503.919, df =136, $p < .0005$). The KMO value of 0.908 indicates that factor analysis should yield reliable and distinct factors. Factor 1 accounted for 45% of variance, factor 2 for 8.7% and factor 3 for 7.5%. The first 3 factors account for 61.44% of the total variance. With the rotated factor matrix using principal Axis factoring, the questions group together in their sections and on different factors to other sections shows content validity. For Questions 41-48 on the content of the supervisory relationship, all loaded onto a single factor, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.911 ($p < 0.0005$) and the total variance explained was 76.351.

4.4.6.2 Reliability of the study

To test for reliability of single measures Cronbach's Alpha (Tavakol & Dennick, 2011:53-55) was applied.

Table 4.1: Test for Reliability using Cronbach's Alpha

	Questions	Items	Cronbach's Alpha
Pedagogical atmosphere	14 - 22	9	0.893
Leadership style of the operational manager (OM)	23 - 26	4	0.858
Philosophic grounding of nursing care on the ward	27 – 30	4	0.798
	All these single measures showed reliability		
The supervisory relationship			
The content of the supervisory relationship	41 – 48	8	0.955
Role of the nurse educator/clinical facilitator			
Nurse educator as enabling the integration of theory and practice	49 - 51	3	0.891
Cooperation between placement staff and nurse educator	52 - 54	3	0.890
Relationship among student, facilitator and educator	55 - 57	3	0.808

On application of a one-sample t-test to the sub-dimensions to test whether there was significant agreement or disagreement, the results were as follows:

All showed significant agreement:

- Pedagogical atmosphere (Mean = 3.3534, Standard Deviation = 0.95904, $t(177) = 4.916$, $p < 0.0005$)
- Leadership style of the operational manager (OM) (Mean = 3.7659, Standard Deviation = 1.02242, $t(177) = 9.995$, $p < 0.0005$)
- Philosophic grounding of nursing care on the ward (Mean = 3.8666, Standard Deviation = 0.94374, $t(177) = 12.251$, $p < 0.0005$)
- The supervisory relationship (Mean = 3.3902, Standard Deviation = 1.19501, $t(177) = 4.357$, $p < 0.0005$)
- Nurse educator as enabling the integration of theory and practice (Mean = 3.8970, Standard Deviation = 1.07590, $t(177) = 11.123$, $p < 0.0005$)
- Cooperation between placement staff and nurse educator (Mean = 3.4682, Standard Deviation = 1.20807, $t(177) = 5.170$, $p < 0.0005$)
- Relationship among student, facilitator and educator (Mean = 3.3886, Standard Deviation = 1.08501, $t(177) = 4.778$, $p < 0.0005$).

The bar graph below illustrates a comparison of mean scores across sub-dimensions.

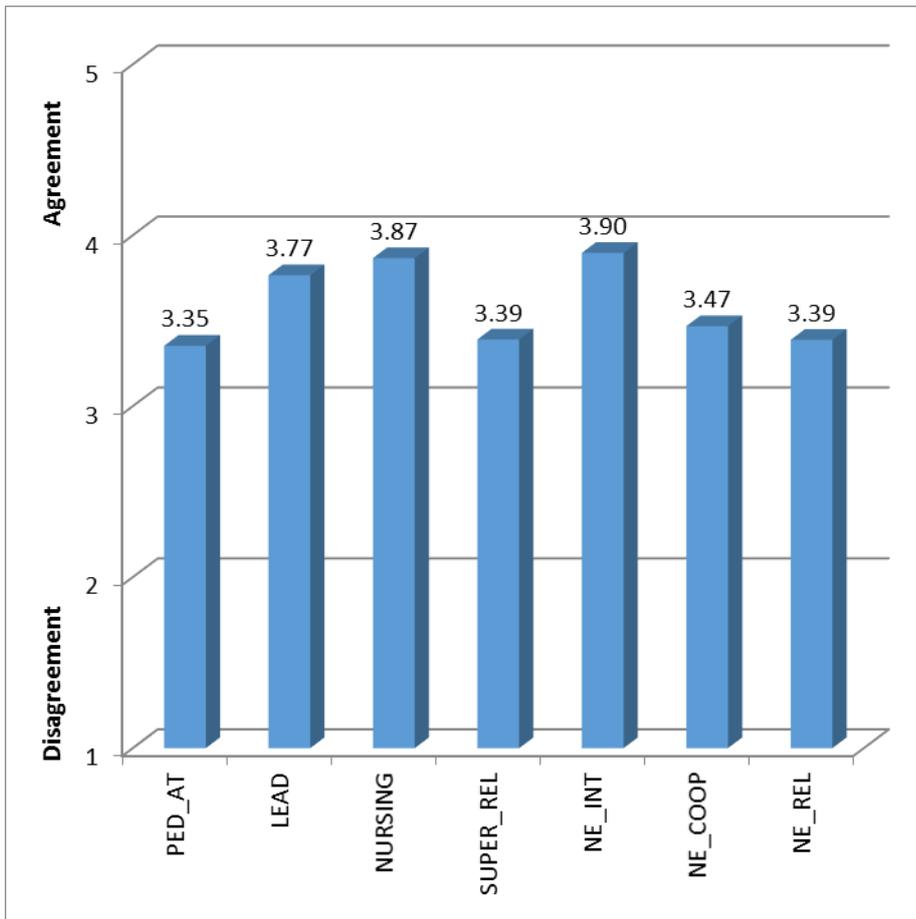


Figure 4.19: Comparison of means scores across sub-dimensions

KEY:

- PED-AT pedagogical atmosphere
- LEAD leadership style of the operational manager
- NURSING philosophic grounding of nursing care on the ward
- SUPER REL supervisory relationship
- NE- CORP corporation between placement staff and nurse educator
- NE-REL relationship among student, facilitator and educator

4.4.7 Differences occur for construct measures across institution, race, gender and ward

Analysis of Variance (ANOVA) was applied to test whether significant differences occur for measures across institution, race, gender and ward.

Institution

Pedagogical atmosphere

Significant differences were found across institutions with regard to agreement that the pedagogical atmosphere was of an acceptable standard ($F(3,174) = 4.147, p=.007$). Specifically, students from Campus D agreed significantly more than those from Campus B or Campus A.

Leadership style of the operational manager (OM)

Significant differences were found across institutions with regard to agreement that the leadership style of the operational manager (OM) was of an acceptable standard ($F(3,174) = 3.639, p=0.014$). Specifically, student nurses from Campus D agreed significantly more than those from Campus C or Campus A.

Philosophic grounding of nursing care on the ward

Significant differences were found across institutions with regard to agreement that the nursing care on the ward was of an acceptable standard ($F(3,174) = 7.338, p<0.0005$).

Specifically, student nurses from Campus D agreed significantly more than those from Campus B or Campus A.

Race

In this section the pedagogical atmosphere, the_nurse educator as enabling the integration of theory and practice and cooperation between placement staff and nurse educator will be discussed.

Pedagogical atmosphere

Significant differences were found across race groups with regard to agreement that the pedagogical atmosphere was of an acceptable standard ($F(2,175) = 4.088, p=0.018$). Specifically, black student nurses agreed significantly more than Asian student nurses.

Nurse educator as enabling the integration of theory and practice

Significant differences were found across race groups with regard to agreement that the role of the nurse educator in enabling the integration of theory and practice was of an acceptable

standard ($F(2,175) = 5.405, p=0.005$). Specifically, black student nurses agreed significantly more than coloured student nurses.

Cooperation between placement staff and nurse educator

Significant differences were found across race groups with regard to agreement that the cooperation between placement staff and nurse educator was of an acceptable standard ($F(2,175) = 5.346, p=0.006$). Specifically, black student nurses agreed significantly more than coloured student nurses.

4.5 Robust Tests of Equality of Means

Significant differences were found across race groups with regard to agreement that the nursing care on the ward was of an acceptable standard (Welch [$2,24.755$] = 3.689, $p=.040$). Specifically, black student nurses agreed significantly more than Asian student nurses.

Gender

No significant differences were found across gender.

Ward

No significant differences were found across ward.

Age

Spearman's correlation was applied to see if there were correlations with age. There were no significant correlations with age.

4.5.1 Correlation between sub-dimensions

Pearson's correlation (Mukaka, 2012:69-71) was applied to see if there was a significant correlation between sub-dimensions. It is evident that all the constructs are significantly positively correlated.

Pedagogical atmosphere

There is a significant positive correlation between pedagogical atmosphere and leadership style of the operational manager ($r = .656, p<0.0005$) and a significant positive correlation between pedagogical atmosphere and nursing care on the ward ($r = .556, p<0.0005$). Furthermore, there is a significant positive correlation between pedagogical atmosphere and supervisory relationship ($r = .657, p<0.0005$), and a significant positive correlation between pedagogical atmosphere and nurse educator as enabling the integration of theory and practice ($r = .396, p<0.0005$). There is

also a significant positive correlation between pedagogical atmosphere and cooperation between placement staff and nurse educator ($r = .469, p < 0.0005$), and a significant positive correlation between pedagogical atmosphere and relationship among student, facilitator and educator ($r = .426, p < 0.0005$).

Leadership style of the operational manager (OM)

There is a significant positive correlation between leadership style of the operational manager and nursing care on the ward ($r = .512, p < 0.0005$); and a significant positive correlation between leadership style of the operational manager and supervisory relationship ($r = .553, p < 0.0005$); a significant positive correlation between leadership style of the operational manager and nurse educator as enabling the integration of theory and practice ($r = .364, p < 0.0005$), and a significant positive correlation between leadership style of the operational manager and cooperation between placement staff and nurse educator ($r = .468, p < 0.0005$). Finally, there is a significant positive correlation between leadership style of the operational manager and relationship among student, facilitator and educator ($r = .394, p < 0.0005$).

Philosophic grounding of nursing care on the ward

There is a significant positive correlation between nursing care on the ward and supervisory relationship ($r = .529, p < 0.0005$); a significant positive correlation between nursing care on the ward and nurse educator as enabling the integration of theory and practice ($r = .515, p < 0.0005$), and a significant positive correlation between nursing care on the ward and cooperation between placement staff and nurse educator ($r = .472, p < 0.0005$).

There is also a significant positive correlation between nursing care on the ward and relationship among student, facilitator and educator ($r = .340, p < 0.0005$).

The supervisory relationship

There is a significant positive correlation between supervisory relationship and nurse educator as enabling the integration of theory and practice ($r = .487, p < 0.0005$); a significant positive correlation between supervisory relationship and cooperation between placement staff and nurse educator ($r = .507, p < 0.0005$); and a significant positive correlation between supervisory relationship and relationship among student, facilitator and educator ($r = .480, p < 0.0005$).

4.5.1.1 ROLE OF THE NURSE EDUCATOR / CLINICAL FACILITATOR

Nurse educator as enabling the integration of theory and practice

The study findings show a significant positive correlation between nurse educator as enabling the integration of theory and practice and cooperation between placement staff and nurse educator ($r = .723, p < 0.0005$) and a significant positive correlation between nurse educator as enabling the integration of theory and relationship among student, facilitator and educator ($r = .592, p < 0.0005$).

Cooperation between placement staff and nurse educator

There is a significant positive correlation between cooperation between placement staff and nurse educator and relationship among student, facilitator and educator ($r = .650, p < 0.0005$).

Students recommendation of their last clinical placement

There is significant satisfaction ($M = 3.49, SD = 1.241$) with the last clinical placement, $t(177) = 5.316, p < 0.0005$. The majority of the participants (78.6%, $n=140$) reported that they would recommend their last clinical placement in either the medical or surgical units.

4.6 Qualitative Content Analysis

A qualitative content analysis (Polit & Beck, 2012) was performed on the open-ended question at the end of the questionnaire. The comments were read several times and the content was organized into codes. Then the codes were brought together into themes, with illustrative quotations attached.

4.6.1 Substandard clinical learning environment

Participants raised numerous challenges during clinical exposure, which hampered clinical learning and made it difficult to achieve learning objectives. Comments such as the following were made:

“Hostile conditions with some permanent staff in the ward”

“Negative staff attitudes and behaviour, negative attitudes of the operational manager, negative attitudes of other students and poor treatment of students”

“There is no mutual respect from staff”

There is “negative criticism” towards student nurses”

“Staff are overworked, patient turnover is overwhelming and there are few resources”

“The focus is not on students’ needs and patient care is generalized and not individualised”

“Racism towards student nurses is high”

“There is a lack of clinical support”.

4.6.2 Active engagement of students in clinical learning

The majority of participants who partially recommended the clinical placement highlighted the need for active involvement of the student in clinical learning. This may indicate that students need to be proactive and take responsibility for their learning needs.

One of the participants stated, *“Provided the learner takes the initiative to learn individually and ask relevant questions”*, whilst another one added *“Good clinical leaning environment for any student who is willing to learn”*.

4.6.3 Provision of adequate supervision

Comments made by participants on the provision of adequate supervision were the following:

“There was minimal supervision, students are seen as the workforce”

They “worked unsupervised as the wards were most often busy and short-staffed”

“There was no feedback or guidance from the staff”

“despite being unsupervised students learn to work independently and learn from their mistakes”.

“There was no competent supervision due to staff absenteeism”

“Staff need in-service on preceptorship, student teaching and supervision”

“One participant partially recommended the placement provided there is correlation of theory and practice with the facilitator or nurse educator”

“If there is more supervision provided”

“Staff need to be more involved in the learning of student nurses”

“There were insufficient clinical facilitators to supervise them”.

4.6.4 Non-nursing tasks

The majority of participants reported that “*students are seen and treated as the workforce*”. Participants expressed that during clinical placement they could not meet their learning objectives. One of the participants said “*students are seen as porters, this hinders learning and compromises our practice time*”. On a similar note, another participant added “*most of our time is spent as messengers*”.¹

4.6.5 Low Culture of teaching

It seems that a low culture of teaching and learning exists in the placement areas. Comments such as the following were made:

“Although it is a suitable environment with many learning opportunities, however, not all staff are willing to teach, they display negative attitude towards teaching”

The “unwillingness of the operational manager and the registered nurse to teach nursing management duties”

They had “no relationship with clinical lecturers in the first two years except for ethics and professional practice in the third year”

“Staff are more routine orientated and do not teach students”.

4.6.6 Development of resilience

Despite the turbulence and complexity of the clinical learning environment, students were able to overcome the negative aspects and learn from it, and therefore many still recommended the placement.

Participants reported that:

You “develop resilience as nursing is a challenging field”

“Although the wards are busy and understaffed, with a high patient turnover, as a student you learn a lot under difficult, stressful situations; it helps students to work under pressure independently”

You “manage to work under pressure with minimal resources and render best care”

“Even though there are limited resources and opportunities for the nurse educator to teach, students are able to learn the basics in nursing and this motivates students to bring about innovation to correct the incorrect things”.

4.6.7 Importance of the CLE

Students regarded clinical practice as a critical component of their learning process and made the following comments:

“Improves competence in the clinical setting”

*“Students develop confidence and clinical skills as they are given a chance to practice”.
The “clinical learning environment provides several and different learning experiences from skilled and experienced medical teams”*

“You are given a chance to hold responsibility”

“You learn how to manage patients with different diagnosis, learn teamwork”

“The operational manager encourages critical thinking”

“There is exposure to ethos and professional practice”.

4.6.8 Quality of nursing care

It is evident that participants are relating the quality of the clinical learning environment with quality of nursing care. Participants made comments such as the following:

Clinical practice “enhances learning and students are able to equip themselves with knowledge and skill in order to provide the best quality of care”

“You learn how to nurse patients effectively with quality care, how to practice as an independent practitioner”.

4.7 Conclusion

This chapter reported on the research results of the study. Frequencies, percentages, means and standard deviation were done. Graphs and tables were used to enhance illustration and interpretation. T-tests were done and revealed that there was significant satisfaction of nursing students with the last clinical placement in the medical and surgical wards. The results were checked with a non-parametric test and results showed the same conclusion. Binomial tests were

done and revealed that nursing staff experience significant physical and mental stress in the wards.

Univariate analysis was conducted on individual statements and then on the constructs. The T-Test here revealed that there was significant agreement amongst the students that overall, they were satisfied with the supervision they received. The constructs were analysed for construct validity and the results demonstrated that construct validity exists. In this study, Cronbach's alpha values of all the constructs ranged between 0.79 and 0.95, and were therefore regarded as reliable.

The open-ended question was analysed, using content analysis, and reflected greater and valuable insight into the participants' experiences on the quality of teaching, learning and supervision in their last clinical placement. In the next chapter these results will be discussed.

CHAPTER 5 DISCUSSION OF RESULTS

5.1 Introduction

This chapter discusses the research results, including results of demographic data. The clinical role of the nurse educator/clinical facilitator, including the nurse educator enabling integration of theory and practice, co-operation between placement staff and the nurse educator/facilitator and relationship between students, facilitator and the nurse educator is also discussed.

5.2 Demographic Data

The demographical characteristics of the sample reflect the demography of nursing in the country. The majority of the nursing students (73.6%, n=131) were aged between 20-29 years and were female (79.8%, n=142). Males formed 20.2% (n=36) of the sample. These figures correspond with a South African study done by Breier *et al.* (2009:28) where the researcher reported that in South Africa the nursing profession is predominantly female, although male numbers are beginning to increase. Breier *et al.* (2009:100) further highlight that the drop-out rate among male students is high; some of the reasons are male student nurses are regarded as homosexuals, when in fact they are not, and male nurses do not like to be called "sister". However, recently many male nurses have risen to senior positions within the profession and nursing unions in South Africa. In contrast, the study by Warne *et al.* (2010:812), which includes a study of student clinical learning experiences in nine European countries, reflects that in Cyprus and in Italy the male student ratios were over 21%, compared to the whole sample ratio of just 11% compared to females.

The results reflect that there were no white nursing students, and the majority of students were black. Similarly, in a study done by Breier *et al.* (2009:28), it was found that black South Africans form the majority of nurses in South Africa, and numbers and proportions of white nurses appear to have diminished quite drastically. The majority of participants (students) (82.6%, n=147) had no previous hospital experience, while 17.4% (n=31) had previous hospital experience. The study by Houghton (2013:6) reveals that pre-entry knowledge is helpful for the newcomer to adapt, and they may display more confidence in the performance of skills; however, challenges faced by individuals with previous healthcare experience must be acknowledged, as they may regress to their previous role. In addition, previous experience can hinder students' critical thinking.

The students' level of education was homogenous, and included all fourth-year students. The study was conducted in the only public college in the province on four different campuses that utilise provincial public hospital placements.

5.3 Latest Clinical Placement

The students are allocated to medical and surgical units in their last clinical placement units, as students spend the majority of hours in these units (a total of 640 hours in these units) as per the regulatory body, the South African Nursing Council. In contrast, the study by Papastavrou *et al.* (2010:178) used several wards including outpatients' departments. Overall the results indicate generally shorter placements at campus A ranging commonly from 1-2 weeks and longer placements at campus D of 5-12 weeks. Although researchers debate the effectiveness of short and long placements, Bartlett *et al.* (2000:369) highlight that the attention should not focus on quantity of time but on the quality of guidance, support and learning achievements afforded during that time. The mean value of clinical placement duration was 3.45 weeks, as compared to the study by Warne *et al.* (2010:812) where the mean value of placements was 6.4 weeks; account must be taken that students are placed more than once in these areas.

5.3.1 Student satisfaction

More than half of the students were satisfied with their clinical placements. The table below reflects a comparison with an international study of nine European countries (Warne *et al.*, 2010:813).

Table 5.1: Student satisfaction

Levels of satisfaction	Warne <i>et al.</i> (2010:813)	Current study
Rather satisfied/very satisfied	42%	60.1%
Neither satisfied nor unsatisfied	44%	20.2%
Unsatisfied/rather unsatisfied	14%	19.7%

19.7% of students were unsatisfied with their last clinical placement as compared to only 14% by Warne *et al.* (2010:813). The unsatisfied students corresponded with the group who experienced unsuccessful supervision (3.5%). The study by Sundler *et al.* (2014:661) highlights that even if students report positive experiences during clinical placements, it has been stressed that many students experienced placements where their learning was not optimised.

5.3.2 Visits by the nurse educator/nurse lecturer

The results revealed that 16% (n=19) of participants were **never visited** by the nurse educator/lecturer during clinical placement. **4% (n=7)** of the participants indicated that they were visited by the nurse educator/ lecturer **for assessment only with no prior supervision**. This

means that the nurse educator is not always visible and available at regular intervals; this is a concern because of the important role of the nurse educator in supporting nursing education in the clinical area, promoting effective learning and reducing the theory-practice gap.

However, Bruce *et al.*,(2011:14) emphasise that students must be guided along the path of knowledge to the stage where they can assume responsibility for their nursing actions, that is, until they attain professional adulthood. According to the SANC, 'clinical accompaniment' is the conscious and purposeful guidance and support of students, based on their unique needs, by creating learning opportunities that make it possible for them to grow from passiveness to involvement to independent, critical practice. This process of accompaniment takes place in conjunction with the direct involvement and physical presence of a tutor/nurse educator, who supplements her work with guidelines and learning resources (Bruce *et al.*, 2011:255).

Although statistically there is significant satisfaction with the last clinical placement (60.1%, n=107), many students elaborated in the open-ended question on the challenges they faced, including staff shortages and resources, and how some of them developed resilience in order to overcome the challenges. Additional information and richer explanation of their experiences were provided by students, in order to get a clearer understanding of the concept of quality and satisfaction with the clinical learning environment:

Participant 48 commented:

"The staff are not student friendly; students are the workforce; students are not able to learn and practice, and have to cover ward routine". This means that students are exploited and are unable to meet their learning outcomes. It also indicates that clinical staff are unaware that students have learning objectives to meet, and are not supportive in this regard. Breier *et al.* (2009:128) highlight that this is related to a lack of clear definition and support for the roles of clinical staff in supporting nursing education, and the roles of the student nurses in clinical practice.

Participant 79 commented:

"continuous staff shortage, racism is high". It seems that students are consistently being used to replace staff members. This is of serious concern as students are not yet competent and cannot be left to work independently, without the supervision of the registered nurse. South Africa is a racially diverse country, with many different population groups working together. Since patients, doctors, nursing staff and students may be of different race groups, poor interpersonal relations and communication difficulties can arise. Similar findings were obtained by Breier *et al.* (2009:98-106) where patients were reported to be racist towards nurses, there was racial discrimination by doctors, and nurses were found to be racist towards patients etc.

Participant 85 commented:

"I was criticised negatively without being shown the correct technique". This raises concern, because nursing deals with human life and if students are not corrected as they work under supervision of the registered nurse patient care will be in jeopardy with poor patient outcomes and this vicious cycle will continue. Similar findings were obtained by Breier *et al.* (2009:101) where a student was criticised to such an extent that she had a nervous breakdown. Breier *et al.* (2009:93) highlight that whether student nurses stay the course of their training and enter the profession depends, to a very large extent, on the nature of their experiences of clinical practice during their student years.

Participant 92 commented:

"Staff is overworked, patient turnover is overwhelming, few resources, no mutual respect from staff, learning is difficult as students are used as the workforce". This means that staff are considerably stressed, and correlates to the quantitative findings where students perceived that there was significant physical and mental stress among clinical staff. This also means that the work environment is not conducive, and the clinical learning environment is a very challenging area for students to meet their learning objectives. Similar findings were obtained by Chesser-Smyth (2005:321), where the clinical learning environment was recognized as a source of stress, which in turn affects the students' responses to learning. Thus, this contributes towards a poor practice environment.

The majority of the participants 37.6% (n=67) showed that patients stay for 1-2 weeks, indicating that there is a high patient turnover. This is in keeping with the study done by Midgley (2006:339) which illuminated that the shifting of emphasis of care from secondary to primary care, which has resulted in acute patients being treated in hospital and minor and chronic patients moved to community based care.

The results showed that a significant number (67%) of nursing staff experience physical stress ($p < 0.0005$), while a significant number (59%) experience mental stress ($p = 0.020$). Breier *et al.* (2009:110) considered what it is like to work as a nurse in South Africa and found that there were difficulties associated with working with severely ill AIDS and TB patients, particularly in KwaZulu-Natal. Nurses also experienced stress and depression caused by working with many terminally ill patients (Breier *et al.*, 2009:125). In South Africa, nursing shortages, unrealistic workloads, poorly equipped facilities, unsafe working conditions and perceived unfair compensation are among some of the factors affecting the work life and performance of nurses and midwives and other healthcare professionals and healthcare workers. This not only jeopardises the quality of patient care, but also the quality of practical training and exposure of nurses, midwives and other healthcare professionals. Although the introduction of the occupation specific dispensation (OSD)

resulted in nurses' salary improvements and attracted nurses with specialised skills, implementation of the OSD was characterised by inadequate planning, weak managerial practices and uneven and inconsistent interpretation of the agreement, which resulted in many disgruntled and demotivated nurses in the public sector. Nursing staff psycho-social working environment is overwhelmingly negative (Strategic Plan for Nursing Education, Training and Practice 2012/13-2016/17).

Similar findings were revealed in a study done by Aiken *et al.* (2013:143) which surveyed nurses' assessment of their work environment and quality of care in medical and surgical units in 12 countries in Europe. It was found that nurses in all countries expressed concerns about the quality of their work environment, and more than half the nurses in 9 out of 12 countries reported that the work environment was poor or fair. High physical and mental stress can seriously affect the quality of care and cause staff burnout and absenteeism. This leads to students being treated as workforce and having work overload, as revealed by students in the open-ended question. This indicates a negative practice environment for students and a poor work environment for nursing staff. Similarly, in a study done by Aiken *et al.* (2011:2-7) on 655 hospitals in four large states, it was found that 30% have a poor nurse work environment. Results of this study revealed that better work environments are associated with better patient outcomes and lower hospital mortality. Further, nurse education may, like nurse staffing, have a more pronounced effect in hospitals with good work environments.

5.4 Quality of the Clinical Learning Environment, Supervision and Nurse Educator Evaluation

In this section the pedagogical atmosphere, premises of learning on the ward, leadership style of the operational manager, philosophical grounding of nursing care on the ward and supervision will be discussed.

5.4.1 Pedagogical atmosphere

The pedagogical atmosphere relates to the prevailing environment for teaching and learning, team spirit amongst staff, participation in discussions and staff-student interaction. In this study, the highest satisfactory agreement for the variable, the pedagogical atmosphere, was the sub-dimension that the nursing staff were easy to approach, which was 66.8% (n=119), and the one with the least agreement (53.4%, n=95) was during staff meetings (e.g. before shifts) student nurses feeling comfortable to participate in the clinical meetings. More than half of the participants (53.9%, n=96) reported that there was a positive atmosphere in the unit. There was significant agreement by the participants with all the sub-dimensions under the variable the pedagogical atmosphere. The mean scores varied from 3.33 for feeling comfortable to participate in the clinical

meetings, and the highest mean was 3.60 for the nursing staff were easy to approach. Overall, the ward atmosphere was evaluated with the lowest score. This is similar to the study by Papastavrou *et al.* (2010:180) in which Cypriot students evaluated the ward atmosphere with lower scores and they also gave the lowest evaluation to the item “during staff meetings I felt comfortable taking part in the discussions”.

The variables approachability of staff and a positive learning atmosphere in the unit are crucial and enhance students learning. According to Bergjan and Hertel (2013:1394) “pedagogical atmosphere on the ward” also influences work and learning processes and a successful development of competencies. It can be concluded that students were not anxious as the staff were easy to approach and they regarded the unit as a good learning environment as this received the second highest mean.

Additional information and richer explanations of their experiences were provided by students in order to get a clearer understanding of the concept of quality and satisfaction within the clinical learning environment:

Participant 63 commented: “*there are some hostile conditions with the permanent staff*”. This means that students were not at ease and under tension; they were not free to ask questions which obstructs learning. These findings are similar to the findings by O’Mara *et al.* (2014:210) where students experienced challenging relationships with staff nurses, which negatively impacted student learning. This decreases learning opportunities for students and results in unsupportable clinical learning environments where learning is not effective.

Participant 47 added: “*professional nurses did not assist with students’ learning needs and teaching did not take place*”. This is similar to the study by Hall-lord *et al.* which highlighted many deficiencies with regard to academic learning (2013:507) including that most registered nurses lack experience and knowledge about pedagogical methods of active learning and utilisation of research findings in clinical work”. Further, Rezaee (2013:532) emphasizes that the quality of the educational atmosphere is crucial for effective learning.

5.4.2 Premises of learning on the ward

Premises of learning on the ward refer to the ward as a learning environment, including meaningful learning experiences, richness of learning situations and staff motivation. In this study, the highest satisfactory agreement was 62.4% (n=111) for the sub-dimension the unit can be regarded as a good learning environment, whilst the one with the least agreement was that the staff were generally interested in student supervision at 42.7% (n=76). The sub-dimension the staff were generally interested in student supervision had neither significant agreement nor significant disagreement. This means that less than half of the students agreed that the staff were

generally interested in student supervision. There was significant agreement by the participants with all the other sub-dimensions under the variable premises of learning on the ward. The mean scores varied from 3.26 for the staff learned to know the student by their personal name, to the highest mean which was 3.50 for the unit can be regarded as a good learning environment. Statistically the results show that, generally, the medical and surgical units can be regarded as a good learning environment. Additional information and richer explanations of their experiences were provided by students in order to get a clearer understanding of the concept of the quality of their learning experiences and satisfaction within the clinical learning environment:

Participant 24 commented that “*insufficient learning occurred*”. This means that students were not able to meet their learning outcomes. This could be as a result of challenges within clinical learning environment, which may result in loss of learning opportunities and impact negatively on students’ clinical learning. Similar findings were reported by O’ Mara *et al.* (2014:210) where students reported insufficient guidance and poor relationships with the nurses, and as a result they did not learn a lot from them.

Participant 65 commented that “*students are seen as porters, hinders learning and comprises their time of practice*”. This means that students did not experience meaningful learning situations and this is not an optimal learning environment as learning was not optimised. This reflects an unsuitable clinical learning environment. Similar findings were reported by Mothiba *et al.* (2012:195) that students are assigned unnecessary jobs and allocated work that is not consistent with learning objectives.

Participant 107 commented that “*most of the time was spent as messengers*”. This means that clinical time is being managed inefficiently and ineffectively, and staff have not identified students’ learning needs, which is a serious concern and shortcoming. This is contrary to the goals of nursing education, which is to produce a nurse who can practice independently, safely and competently to produce quality nursing care of the highest standard and enhance patient outcomes. This is similar to the findings by Houghton *et al.* (2012:1964) where, at times, potential opportunities for teaching and learning nursing skills were missed due to students being given non-nursing tasks, which is not beneficial to clinical learning outcomes. Clinical staff can help to provide a positive clinical learning environment through the provision of learning opportunities and providing appropriate support and supervision (Houghton *et al.*, 2012:1967).

Participant 57 commented that “*most of the time spent replacing short staff members in the ward*”. In the clinical learning environment students are regarded as subordinates due to lack of knowledge and experience and have less power, which makes them vulnerable to abuse and exploitation. Similarly, the study by Chan and Ip (2007:682) highlights that students are vulnerable in the clinical learning environment and need respect, support and recognition. Anthony and

Yastik (2009:141) add that as a group, nursing students hold less power in healthcare settings and are particularly susceptible to becoming the targets of incivility". Thus, students are afraid of seniors who are more knowledgeable and experienced and comply with orders given, even if it does not meet their learning objectives to avoid victimisation and obtaining poor progress reports.

5.4.3 Leadership style of the operational manager

The leadership style of the operational manager influences team work, nursing care and learning in the unit. In this study, the highest satisfactory agreement was 75.8% (n=135) for the feedback from the operational manager (OM) being easily considered as a learning situation, whilst the one with the least agreement was that the effort of individual employees were appreciated (65.7%, n=117). There was significant agreement by the participants with all the sub-dimensions under the variable leadership style of the operational manager. The mean scores varied from 3.61 for the effort of individual employees was appreciated, to the highest mean of 3.92 for feedback from the operational manager (OM) could easily be considered as a learning situation. There is a significant positive correlation between pedagogical atmosphere and leadership style of the operational manager, $r = 656$, $p < 0.0005$. This is in keeping with Skaalvik (2011:2294) who found that the operational manager holds a pivotal role in creating a positive ward atmosphere that is conducive to learning.

Additional information and richer explanations of their experiences were provided by students in order to get a clearer understanding of the concept of quality and satisfaction within the clinical learning environment:

Participant 27 did not recommend the placement because of "*the attitude of the Operational Manager and poor treatment of students*". This is similar to the findings of Papastavrou *et al.* (2010:180) where students gave operational managers a low evaluation score, and their opinion about leadership and the role of the operational manager in the promotion of learning was recognised as negative (in South Africa ward managers are known as operational managers) The study by Saarikoski and Leino-Kilpi (2002:18) highlights that a positive ward culture depends on the leadership style of the operational manager, and that the leadership style of the operational manager remains an important element of learning.

Participant 94 reflected that "*there is no feedback and no teamwork*". This means there was poor staff relationships and poor communication, which are obstructive factors to learning. Feedback also helps students to reflect on their strengths and weaknesses, and to take remedial action to rectify gaps in their performance. In the study by D'Souza *et al.* (2015:838), students felt that feedback on their clinical performance and satisfaction was essential for their effective premises of learning in their clinical placements. However, the findings of the study by Meerah and Halim

(2011:637) add that although feedback plays an important part in improving students learning, not all have a positive impact, and students can engage in self-evaluation or peer evaluation.

Participant 102 conditionally recommended the placement “*provided that operational managers treat students as students and not their workforce*”. This is similar to the findings of Chuan *et al.* (2012:192-197) where it was reported that learning was hindered by students being treated as workers rather than as students. Thus, in terms of the quality of the teaching atmosphere, this placement area would be regarded as a low student oriented ward, as it presents to the student an experience characterised by the student being seen as worker rather than a learner (Saarikoski & Leino-Kilpi, 2002:18).

Participant 115 stated that “*the operational manager and registered nurses were unwilling to teach nursing management duties*”. This means that students experienced an unsupportive environment with a low culture of teaching. Similar to the study by Brammer (2006:963), registered nurses may promote or impede quality of learning, and they themselves also need support in the complex role of student learning. According to Saarikoski and Leino-Kilpi (2002:266), the clinical nurse managers’ commitment and support to learning are perceived as positively affecting the clinical learning environment.

5.4.4 Philosophical grounding of nursing care on the ward

The quality of nursing care given to patients in the ward during training directly influences nursing students’ clinical learning and practice upon graduation. In this study, more than three quarter of the participants (75.8%) agreed that the wards’ nursing philosophy was clearly defined. This finding is contrary to what was found in the study by Kachiwala (2006:61), where the nursing philosophy for the ward was not clearly defined. More than two thirds of the participants (68%) agreed that there were no problems in communication related to patients’ care. This finding is contradictory to the one found in the study by Pearcey and Draper (2008:597) in which there was excessive documentation and the care was documented but not implemented. In this study, there was significant agreement by the participants with all the sub-dimensions under the variable philosophical grounding of nursing care on the ward. The mean scores varied from 3.79 for there were no problems in communication related to patients’ care and the highest mean of 4.03 for the wards’ nursing philosophy was clearly defined.

There is a significant positive correlation between philosophical grounding of nursing care on the ward and the constructs supervisory relationship and all the sub-dimensions under the role of the nurse educator/clinical facilitator. This indicates that the key component of a quality clinical learning environment is the quality of nursing care delivered, and that quality supervision and clinical teaching by the nurse educator/clinical facilitator improves the quality of the clinical learning environment. Similar to the study by Suikkala, Leino-Kilpi and Katajisto (2008:547), this

also indicates that patient-centred approaches in the supervision of students are essential. Additional information and richer explanations of their experiences were provided by students in order to get a clearer understanding of the concept of quality and satisfaction with the clinical learning environment:

Participant 109 reflected “*patient care is not individualised but generalised, limited and done incorrectly*”. This comment reflects that patients are not treated holistically, total patient care is not being practiced, and nurses lack commitment, caring and skills. This can have a negative impact on students learning. The study by Pearcey and Draper (2008:598) revealed similar findings of a task-centred approach to patient care and lack of values such as caring, compassion and kindness towards patients.

Participant 61 commented that there are “*poor resources which makes quality care almost impossible at times*”. This comment reflects the plight of nurses in both the public and private sectors in South Africa, where they are confronted by budgetary constraints and rationing of resources at times, which ultimately affects the quality of care delivered, and thus the clinical learning of students is also affected. This is similar to the study by Breier *et al.* (2009:115), which states that the private colleges that are producing many of these nurses are often inadequately resourced and not producing quality nurses. In addition, Breier *et al.* (2009:93-96) highlights the lack of staff and equipment - many nursing students contracted tuberculosis (TB) due to a lack of masks in the public hospitals and having to pay for masks in the private institutions.

5.4.5 Method of supervision

The method of supervision, the number of supervision sessions and the content of the supervisory contact within a positive ward atmosphere are important variables in student clinical learning (Saarikoski & Leino-Kilpi, 2002:259). Supervision of nursing students can be either individual or group supervision. According to Saarikoski and Leino-Kilpi (2002:260), clinical supervision involves elements of practical teaching, assessing, supporting and facilitating students learning. In this study, the most common method of supervision was **group supervision** as revealed by the majority of the participants (74.2%, n=132), whilst 3.5% (n=24) experienced unsuccessful supervision and 11.2% (n=20) experienced individual/successful supervision.

This is similar to the study by Papastavrou *et al.* (2010:176) where the majority of students experienced a group supervision model. In contrast, the study by Saarikoski and Leino-Kilpi (2005:12) highlights that the one-to-one supervision models are likely to be increasingly influential in contributing to students’ professional development. Further, the preferred approach to supervision is increasingly towards individualized supervision (Saarikoski & Leino-Kilpi, 2002:40). However, the study by Dimitriadou *et al.* (2014:5) found no significant change in students’

satisfaction, whether the students experienced team supervision or individual supervision, and adds that students can benefit from both approaches of supervision.

Table 5.2: Differences in the method of supervision

Method of Supervision	Dimitriadou <i>et al.</i> (2014)	Saarikoski & Leino-Kilpi (2002)	Bergjan & Hertel <i>et al.</i> (2013)	Papastavrou <i>et al.</i> (2010)	Warne <i>et al.</i> (2010)	Current study
Unsuccessful supervision	18.5%	21%	20%	30.3%	47%	3.5%
Group supervision	26.1%	37%	33%	58%	25%	74.2%
Successful supervision	55.5%	42%	46%	11.4%	57%	11.2%

It is a concern that only 11.2% of students experienced successful supervision, which reflects the quality of clinical learning and clinical nurse education, in some of the campuses of the Provincial College of Nursing is not optimal. Additional information and richer explanations of their experiences were provided by students in order to get a clearer understanding of the concept of quality of supervision and satisfaction within the clinical learning environment:

Participant 67 commented that *“there was minimal supervision of students, are seen as workforce and not given enough time to learn as students”*. This means that staff were ignorant of students’ learning needs and this decreased their learning opportunities. According to O’Mara *et al.* (2014:208), lack of awareness of students’ learning needs contribute to an unsupportive clinical learning environment. This may retard student professional development and result in stunted growth.

Participant 94 commented that *“there is lack of supervision and guidance”*. This comment suggests that there is lack of clinical support given to students, and reflects a poor-quality environment for clinical exposure and learning. The findings of the study by Papastavrou *et al.* (2010:176) illustrate similar problems in the supervision of clinical practice.

Participant 39 commented that *“the wards are always full and busy and it is difficult to have one-to-one supervision”*. This means that patient care takes priority over student supervision. Similarly, the study by Saarikoski and Leino-Kilpi (2002:20) illustrates that although the individualised supervisory relationship is one of the most important contributors to student learning in clinical

practice, there are problems in the supervisory role of nursing staff who often experience conflicting pressures in their dual role as teachers and carers.

5.4.5.1 Other method of supervision

According to Saarikoski and Leino-Kilpi (2002:265), supportive and trusting supervision has an essential role to play in the creation of a positive learning environment. In this study, different approaches to supervision were used and 43.7% of participants experienced indirect supervision whilst 11% experienced peer group supervision. Only 7.1% of participants received direct supervision. Similarly, Houghton *et al.* (2012:1965) point out that with peripheral (indirect) support senior students could work independently with the staff nurse when needed. Peer support could either positively or negatively impact on students.

5.4.5.2 Separate (private) supervision sessions with the supervisor (without the nurse educator)

According to Dimitriadou *et al.* (2014:1), the frequency of individualised supervision meetings were also found to be the most important variable in students learning. The majority of the students (34.8%) did not have any separate sessions with the supervisor (without the nurse educator), 29.8% had these sessions once or twice during the course and 11.2% (n=20) had the sessions more often. This reflects inadequate supervision of students by supervisors and does not ensure effective clinical learning or creation of a positive learning environment. In contrast, the study by Dimitriadou *et al.* (2014:3), found that 35.3% of students reported that they had no individual meeting with the mentor, 26.6% reported meetings less than twice during their clinical placement and 37.8% reported that they had supervision sessions more than once a week.

5.4.5.3 The content of the supervisory relationship

The supervisory relationship includes the supervisors' attitude towards student supervision, the type of supervision, frequency of feedback, students' satisfaction with the supervision, and the quality of the supervisory relationship. Only half of the participants (50%) agreed that they received continuous feedback from their supervisors. Additional information and richer explanations of their experiences were provided by students in order to get a clearer understanding of the concept of quality of supervision and satisfaction with the clinical learning environment:

Participant 45 commented that "*staff are not interested in student supervision*". This indicates a low culture of teaching and lack of staff commitment to student supervision in the unit, despite the teaching function being part of the scope of practice of a professional nurse, according to the South African Nursing Council (SANC, 1992:6). This content analysis also corresponds with the statistical analysis of "the staff were generally interested in student supervision" which had the lowest overall mean of 2.96.

Participant 94 commented that “*there is no feedback*”. This finding is similar to the findings by Meerah and Hallim (2011:633), which showed that frequency of feedback received by the students was low and quality of feedback was lacking. This means that students will be unaware of their strengths and weaknesses, will not know where the gaps in their performance are, or which areas need improvement; this does not contribute to effective clinical learning. Feedback has been found by many researchers to have a significant, important contribution on students’ learning (Meerah & Hallim, 2011:633). Feedback also reflects the quality of teaching received during clinical practice.

5.4.6 Role of the nurse educator/clinical facilitator

In this section the Nurse educator as enabling the integration of theory and practice, cooperation between placement staff and nurse educator/ facilitator and relationship among student, facilitator and nurse educator will be discussed.

5.4.6.1 Nurse educator as enabling the integration of theory and practice

This dimension looks at the quality of the nurse teachers’ pedagogical dimensions with regards to supporting students in clinical practice. This sub-dimension, “nurse teacher enabling the integration of theory and practice”, had the highest mean score (3.94). With regard to the nurse educators visits to the clinical placement, 16% of participants reported that they were not visited by the nurse teacher during their allocation, 53% were visited one to two times, and 31% were visited 3 or more times. Only **4% (n=7)** of the participants indicated that they were visited by the nurse educator/ lecturer for assessment only, whilst the rest did not indicate. This is similar to the findings by Dimitriadou *et al.* (2014:4) where 15.6% of the students reported that they were not visited by the nurse educator/lecturer during their allocation, 24.4% were visited one to two times, and 59% were visited more than three times.

This indicates inadequate accompaniment and supervision by nurse educators, which is of concern as this a requirement and standard set by the national regulatory body, the SANC. Those who indicated they were visited for assessment only indicated that nurse educators were expecting clinical staff to supervise students. There was a weak correlation between role of the nurse educator: nurse educator as enabling the integration of theory and practice and leadership style of the operational manager ($r= 0.360$).

Additional information and richer explanations of their experiences were provided by students in order to get a clearer understanding of the concept of the quality of teaching and satisfaction with the clinical learning environment. Feedback from the open-ended question revealed the following:

Participant 11 partially recommended the placement, “*Provided there is correlation of theory and practice with facilitators and nurse educators*”. This is similar to the study by Saarikoski and Leino-

Kilpi (2002:20) where it is reported that the staff nurse is the expert in clinical practice, whilst the nurse educator can give a more theoretical perspective to the clinical situation. The nurse teacher is an expert in educational processes too. This is in contrast to the study by Dimitriadou *et al.* (2014:1) where the majority of students valued their mentors' supervision more highly than a nurse educator's supervision toward the fulfilment of learning outcomes.

Participant 61 commented "*there is a poor amount of clinical facilitators and nurse educators*". This means that there are few clinical facilitators employed who thus have an increased workload. According to Brown *et al.* (2013:511), clinical educators play a key role in the education of students, because they supervise students while they are completing practice placements, are familiar with the academic curriculum and help them to make links between what they observe and experience in the clinical setting and what they have studied in the classroom. Unlike first world countries where clinical facilitator workload is generally 1:8 (Croxon & Maginnis, 2009:236-243), in South African public services the clinical facilitator workload is much higher. Also, clinical facilitators were reintroduced in 2012 and only a few were employed, 2-3 per campus depending on campus size. Similar to the study by Brown *et al.* (2013:515) clinical facilitators face many challenges when there are increased numbers of students as their teaching strategy is mainly opportunistic. According to Saarikoski and Leino-Kilpi (2002:15) the nurse educator makes a significant contribution to education in the practice setting, contributes to the student's overall experience in practice, enabling students to meet learning outcomes and develop appropriate competencies. The nurse educator is responsible for both theoretical and clinical teaching components, however, there have been changes to the nurse educators' clinical role and as a result they are not seen much in the clinical area due to a heavy teaching workload.

5.4.6.2 Cooperation between placement staff and nurse educator/ facilitator

This dimension looks at the quality of the nurse educator's co-operation with the crucial stakeholders in the clinical practice of students. In the sub dimension, "the nurse educator/ facilitator was capable to give his or her pedagogical expertise to the clinical team" had the highest mean score (3.57). This is similar to the study by D'Souza *et al.* (2015:838) where students also informed that the nurse teachers provided a higher level of support. The lowest mean score (3.38) was "the nurse educator/facilitator was like a member of the nursing team". This could mean that nurse educators/facilitators are not very visible in the clinical area due to other responsibilities, and are unable to provide constant support and guidance to placement staff. The high significant correlation between the dimensions "nurse educator as enabling the integration of theory and practice" and "co-operation between placement staff and nurse educator/facilitator" indicates that collective teaching by all relevant stakeholders assists in supporting students in the clinical area and narrows the theory-practice gap.

5.4.6.3 Relationship among student, facilitator and nurse educator

This dimension looks at the quality of the nurse teachers' social dimensions with regard to supporting students in clinical practice. According to Alhaqwi (2012:38), a good student-teacher relationship facilitates learning and stimulates their involvement in the learning process. In the sub-dimension "the focus of the meetings was on my learning needs" had the highest mean score (3.61). This reflects a positive practice environment for clinical learning. The lowest mean (2.97) was reported for the sub-dimension "in our common meetings I felt that we are colleagues". This means that the hierarchical management in public health sectors still exist and students are seen as subordinates.

This is in direct contrast to the study by Prato *et al.* (2011:113) which highlights a move from a teacher-centred perspective to a student-centred learning environment, where engagement of the learner and faculty are seen as equal partners in the learning environment. Further, Anthony and Yastik (2009:140) add that the importance of treating students as colleagues and sharing knowledge were characteristics that greatly improved the clinical learning experience. There was no positive significant correlation of this dimension with any of the other dimensions. There was a weak correlation between the role of the nurse educator: relationship among student, facilitator and nurse educator and philosophical grounding of nursing care on the ward ($r = 0.340$).

5.4.6.4 Internal consistency

In this study, the Cronbach's Alpha ranged from 0.79 to 0.95 and confirmed the internal consistency of the questionnaire. The sub-category "**supervisory relationship**" had the **highest value (0.95)**. This is similar to the study by Bergjan and Hertel (2013:1396) where the highest Cronbach's alpha to evaluate reliability was found in the sub-category "supervisory relationship" with a value of 0.96. The table below reflects a comparison with other studies.

Table 5.3: Cronbach's Alpha across different studies

Study	CLES (n=416) Saarikoski & Leino-Kilpi (2002)	CLES+T (n=549) Saarikoski <i>et al.</i> (2008)	CLES+T (n=357) Dimitriadou <i>et al.</i> (2014)	CLES+T (n=178) Current study
Cronbach's alpha	0.73-0.94	0.77-0.96	0.82-0.96	0.79-0.95

5.4.6.5 Factor analysis

Sample adequacy was confirmed by means of the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity. The results demonstrate that construct validity exists. A comparison reveals the following differences:

Table 5.4: Tests of construct validity

	Viscaya-Morena <i>et al.</i> (2015:363)	Johanson <i>et al.</i> (2010:2088)	Current study
Kaiser-Meyer-Olkin (KMO) Measure	0.94	0.93	0.90
p value	p<0.001	p<0.001	p<0.001

Differences in factor loadings are outlined in Table 5.5.

Table 5.5: Loading differences across studies

Items	Saarikoski & Leino- Kilpi (2008)	Johanson <i>et al.</i> (2010)	Viscaya- Moreno <i>et al.</i> (2015)	Current study
26. The effort of individual employees was appreciated.	Factor 4	Factor 2	Factor 2	Factor 2
27. The ward's nursing philosophy was clearly defined.	Factor 5	Factor 2	Factor 2	Factor 3
28. Patients received individualised nursing care.	Factor 5	Factor 2	Factor 2	Factor 3
29. Documentation of nursing (e.g. nursing plans, daily recording of nursing procedures, etc.) was clear.	Factor 5	Factor 2	Factor 2	Factor 3

Key:

Factor 2 - pedagogical atmosphere)

Factor 3 - role of the nurse teacher)

Factor 4 - leadership style of the operational manager)

Factor 5 - philosophic grounding of nursing care on the ward)

The effort of individual employees loaded on factor 2 in this study, whilst in Saarikoski and Leino-Kilpi (2008) it loaded on factor 4. The items, The ward's nursing philosophy was clearly defined, patients received individualised nursing care and documentation of nursing all loaded on factor 3 in this study, whilst in Saarikoski and Leino-Kilpi (2008) these items all loaded on factor 5. This

means that in South Africa the nurse teacher is largely responsible for correlation of the wards' philosophy, individualised nursing care and documentation of nursing care with practice.

5.5 ANOVA

In this section results of the Anova tests are discussed.

5.5.1 Campuses

Anova was applied across the four (4) public campuses where the data was collected. Significant differences were found across campuses. There was significant agreement amongst campus D students that the clinical learning environment was of an acceptable standard, specifically with regard to the following constructs: pedagogical atmosphere, leadership style of the operational manager and philosophic grounding of nursing care on the ward. The least significant agreement that the clinical learning environment was of an acceptable standard, specifically with regard to the following constructs were:

Table 5.6: Campuses with least significant agreement

Construct	Campus with the least significant agreement that the clinical learning environment was of an acceptable standard
Pedagogical atmosphere	Campus B
Leadership style of the operational manager	Campus A
Philosophic grounding of nursing care on the ward	Campus A

All provincial hospitals in this province have the same number of staff irrespective of the number of beds. Campus D students are placed in a hospital, which is a 530-bedded unit and is a tertiary/regional academic hospital with more resources, specialised staff and a bigger budget, and less patients as they are more specialised. Campus B (571 bedded unit) and campus C (333 bedded unit) are regional hospitals with a lower budget than campus D and have the same number of staff, whilst campus A (543 bedded unit) is a district/regional hospital serving a very vast area and receiving the lowest budget, having the same number of staff as all other provincial hospitals, less resources, more patient workload and more students.

5.5.2 Race

With regard to the pedagogical atmosphere being of an acceptable standard, black nursing students agreed more than Asian nursing students on this construct. For the nurse educator as enabling the integration of theory and practice and co-operation between nurse educator and facilitator being of an acceptable standard, again black nursing students agreed more than coloured nursing students on this construct. This could be because the highest intake of students are black students (71.9%) in this study. This is in keeping with the study by Breier *et al.* (2009:21) of the racial distribution of nursing staff in South Africa in 2006: blacks comprised 83%, coloureds 11.0%, Indians 1.8% and whites 4.3%. Further, 7% of mothers of black nursing students were reported to be in the nursing profession, and many nursing students are influenced by parents, family role models and bursaries for disadvantaged students to take up nursing (Breier *et al.*, 2009:84-86).

5.6 Conclusion

In this chapter, the study results were discussed. Overall, it was the sub-dimension **“philosophical grounding of nursing care on the ward” which had the highest mean (4.03), since the scores on the items were consistently high. The second highest mean was the nurse educator as enabling the integration of theory and practice (3.94).** Thus, the philosophical grounding of nursing care on the ward, which includes a clear definition of the wards nursing philosophy, individualised nursing care, clear communication related to patients care and clear documentation of nursing care were found to be highly significant for student learning in the clinical environment. In addition, the role of the nurse educator as enabling the integration of theory and practice which includes nurse educator/facilitator competence in clinical teaching and assisting students to reduce the theory-practice gap, were also found to be a most significant factor for student learning in the clinical environment. **The lowest overall evaluation (mean score 2.96) was received by the sub-dimension pedagogical atmosphere.** Similar to the findings of Saarikoski *et al.* (2005:11), the pedagogical atmosphere correlated strongly with all the other sub-dimensions. This can be interpreted to mean that the atmosphere of the clinical learning area determines whether the environment is conducive to learning. Thus, it can be concluded that the environment of the placement settings used by the provincial College of Nursing is sub-optimal for students’ clinical learning.

CHAPTER 6 SUMMARY, MAIN FINDINGS, LIMITATIONS, RECOMMENDATIONS AND CONCLUSION

6.1 Introduction

This chapter contains a summary of the study, the main findings of the study, limitations and significance for nursing practice, nursing education, policy and nursing research and the conclusions informed by the study.

6.2 Research Summary

Nursing is a practice based profession, and clinical nursing education forms a significant component of the nursing education curriculum as it provides opportunities for students to learn experientially in clinical practice. Clinical nursing education takes place in the clinical learning environment, and this is the practice area where nursing students learn skills on how to become a nurse under the supervision and guidance of professionals (registered nurses, clinical facilitators and nurse educators). The clinical learning environment is the ideal environment as it provides authentic experiences, with real patients, and is the essential best practice context for successful learning experiences. In the clinical learning environment, students are expected to merge and consolidate the theory learnt in the classroom to the practice setting.

The clinical learning environment consists of the clinical settings, patients and their families, equipment and resources, nursing staff, peer group and the multidisciplinary team. All of these components influence the quality of teaching and learning in the clinical setting. In the clinical area, students learn experientially and by observation of role models. Learning is enhanced if there are sufficient meaningful learning opportunities and adequate supervision and feedback.

However, the clinical learning environment is also the patient care environment and the staff working environment, and poses many learning challenges as learning occurs within the context of service provision. This environment is very complex, turbulent, fast paced, demanding, high risk, unpredictable and uncontrolled. Although the lack of control in this environment makes it a beneficial and a crucial learning experience for critical clinical skills, it poses many risks to quality. There are many gaps in terms of the quality of learning and teaching that occurs in this complex environment, and this has far reaching consequences in terms of safety, competence of new graduates and quality of nursing care.

The purpose of this study was to:

- Describe student nurses' perception of the quality of the clinical learning environment and clinical supervision in the medical and surgical units used by the provincial nursing college

The research question was:

- What is the quality of the clinical learning environment of medical and surgical units where provincial college students are placed?

A quantitative, cross sectional, descriptive, survey design was selected. The design was used to describe the perceptions of student nurses on the quality of the clinical learning environment and clinical supervision. The study population (n=178) comprised student nurses from four campuses of the provincial college of nursing in Kwazulu-Natal. A self-administered questionnaire was used to obtain data. An open-ended question was added in order that students should comment on why they would recommend their last clinical placement based on their lived experiences.

Only those participants who returned the questionnaires were included in the study. The response rate was 89%. The majority of the sample consisted of Black, female student nurses. Descriptive statistics were used to analyse data (mean, frequencies, percentages and standard deviation). Construct validity was analysed using factor analysis, with a varimax rotation, and reliability was confirmed using Cronbach's Alpha. The Kaiser-Mayer-Olkin (KMO) test and Bartlett's test of sphericity were performed to confirm sample and items adequacy. Anova was done to test whether significant differences occurred for construct measures across institution, race, gender and ward, and to confirm the data; all results concurred. Pearson's correlation was applied to see if there was any significant correlation between the sub-scales. Relationships between variables was tested using t-tests. Statistical significance was set at the p value < 0.05.

6.3 Main Findings

The main findings are presented according to the objectives of the study.

6.3.1 Clinical staff work environment

A positive practice work environment for staff has a ripple effect on the clinical learning environment for students and creates a best practice environment for meaningful, successful learning experiences. It was reported that a significant 67% of nursing staff experience physical stress while a significant 59% experience mental stress. This means that if staff are experiencing burnout, they will be too exhausted to conduct adequate clinical teaching and supervision. Registered nurses are regarded as clinical experts and are key to clinical learning.

If wards are too busy, the atmosphere will be rushed and fast paced, there will be little time to answer students' questions and staff may not be able to teach students step by step and may end up doing things themselves to meet increased clinical workload demands. As a result, students may not grasp skills, knowledge and nursing techniques properly. This may result in missed learning opportunities for students, which affects the clinical learning of students and widens the theory-practice gap. Students may also role-model negative behaviours they have observed. Thus, it can be concluded that the staff work environment is very challenging which, in turn, has a significant impact on the clinical learning environment and thus affects clinical learning of students.

6.3.2 Pedagogical atmosphere

An encouraging, impactful pedagogical atmosphere, with positive interpersonal relationships, is critical for effective student learning in the clinical learning environment. The majority of the participants (66.8%) indicated that the nursing staff was easy to approach. This is vital for staff-student interaction; as it will enhance this relationship and promote clinical learning.

A quarter of the participants disagreed that they felt comfortable going to the ward at the start of the shift. A little more than half of the participants (53.9%) reported that there was a positive atmosphere in the unit. This means that there is plenty of room for improvement in this regard; a positive atmosphere enables and enhances clinical learning when it is not tense and fraught with anxieties.

Also, a little more than half of the participants (53.4%) reported that during staff meetings (e.g. before shifts) they felt comfortable to participate in the clinical meetings. This means that there is plenty of room for improvement in this regard too. This could mean that students are not regarded as members of the team and are regarded as visitors to the ward due to short placements. Thus,

the nursing staff need to involve students during staff meetings, as it will enhance clinical learning and belongingness to be part of the team.

T-tests revealed significant agreement with all the statements under this sub-dimension, meaning that students were satisfied with the pedagogical atmosphere. The open-ended question revealed that some students experienced challenging interpersonal relationships with staff, and some had experiences with unsupportive staff that impacted student learning negatively. Thus, it can be concluded that there are challenges with regard to the pedagogical atmosphere, which affects student learning in the clinical learning environment.

6.3.3 Premises of learning on the ward

Learning in the clinical learning environment is enhanced by students' and clinical staff's positive attitude towards student learning, a variety of clinical opportunities and a student-centred learning environment. Less than two thirds of the participants (62.4%) in this study reported that the unit can be regarded as a good learning environment, and that there were sufficient meaningful learning situations on the unit (60.1%).

Less than half of the students (42.7%) agreed that the staff were generally interested in student supervision. This reflects challenges in the supervision of clinical practice. Staff need to show more commitment and interest in student supervision.

A little more than half of the participants reported the learning situations were multidimensional in terms of content (52.3%) and that the staff learned to know the student by the student's personal name (55.1%). Thus, there is room for improvement in the quality of learning situations.

T-tests revealed significant agreement with most of the statements under this sub-dimension, meaning that generally students were satisfied with the premises of learning on the ward, except for "the staff were generally interested in student supervision", which revealed neither significant agreement nor significant disagreement.

The open-ended question revealed that some students were unable to meet their learning outcomes, clinical time was poorly managed and not used productively and students were treated as workers and not as learners. Thus, it can be concluded that there are challenges with regard to the premises of learning on the ward that affects student learning in the clinical learning environment.

6.3.4 Leadership style of the operational manager

The leadership style of the operational manager influences students learning significantly in the clinical environment. In this study, more than two thirds (69.1%) of the participants reported that

the operational manager regarded the staff on the ward as a key resource, 69.7% reported that the operational manager was part of the team, three quarters (75.8%) of participants reported that the feedback from the operational manager (OM) could easily be considered as a learning situation and a further 65.7% reported that the effort of individual employees was appreciated. These qualities of an operational manager are significant as the organization of the ward and nursing care, the learning atmosphere and the team spirit in the ward is very much dependent on the operational manager. Thus, if the operational manager can work with her team and appreciate their efforts in achieving quality nursing care, as well as being committed towards student clinical supervision and learning, an optimal work environment can be created, which will have a significant impact on the clinical learning environment for students.

T-tests revealed significant agreement with all the statements under this sub-dimension, meaning that students were satisfied with the leadership of the operational manager. The open-ended questions revealed that some students had negative experiences in the clinical learning environment, including the negative attitude of the operational manager, no feedback given to students, no teamwork, and unwillingness to teach students and share knowledge and skills. Thus, it can be concluded that there are challenges with regard to the leadership style of the operational manager, which affects student learning in the clinical learning environment.

6.3.5 Philosophic grounding of nursing care on the ward

A best practice work environment by clinical staff creates a positive learning environment for students to observe and emulate role models, and gain fruitful and meaningful learning experiences. In this study, three quarters of the participants (75.8%) reported that the ward's nursing philosophy was clearly defined, 73% reported that the patients received individualised care, more than two thirds (68%) reported that there were no problems in communication related to patients care, and 73.6% reported that the documentation of nursing care was clear.

T-tests revealed significant agreement with all the statements under this sub-dimension, meaning that students were satisfied with the nursing care on the ward. The open-ended questions revealed that some students had negative experiences that included generalized nursing care and not individualized care, insufficient nursing care, poor nursing techniques and inadequate resources. Thus, it can be concluded that there are challenges with regard to the philosophic grounding of nursing care on the ward, which affects student learning in the clinical learning environment.

6.3.6 Nature of supervision at the public hospitals

More than half of the participants (56.2%) reported that they were supervised by registered nurses and more than one third (37.1%) were supervised by the operational manager. The participants

were allocated to medical and surgical units. The majority of the patients (37.6%) stayed for 1 to 2 weeks. The participants were allocated to these wards from 1 to 12 to weeks, the mean being 3.45 weeks. During this period, participants met the nurse teacher from 0 to 10 times, the mean being 2.13 times. The results revealed that 16% of participants were **never visited** by the nurse educator/lecturer during clinical placement, and **4%** of the participants indicated that they were visited by the nurse educator/lecturer for assessment only with no prior supervision, whilst the rest did not indicate. It can thus be concluded that the nurse educator/lecturer did not visit students on a regular basis to supervise or support them. Regarding separate supervision sessions with the nursing staff

- more than one third (34,8%) of participants reported that they did not have any separate sessions with the supervisor (without the nurse educator),
- and more than a quarter of participants (29,8%) had these sessions once or twice during the course.

This does not promote sufficient, meaningful learning in the clinical learning environment (CLE), because learning is opportunistic and the registered nurse staff are the most influential factor within the clinical learning environment (Papp *et al.*, 2003:263). In addition, Dimitriadou *et al.* (2014:2) emphasize that effective and productively planned clinical time, by the mentor and the nurse teacher, is vital.

Group supervision was experienced by almost three quarters (74.2%) of the participants. Less than half (43.7%) of participants reported an indirect method of supervision where there is peripheral support. This could be because students were senior and needed less direct supervision.

6.3.7 Supervisory relationship

More than two thirds of participants (66.9%) reported that the supervisor showed a positive attitude towards supervision; less than two thirds (60.7%) reported that the supervision was based on a relationship of equality and promoted their learning, while 63.5% reported that mutual respect prevailed in the supervisory relationship. However, more than half (52.2%) reported that they did not receive individual supervision, and more than a third of participants (37.1%) disagreed that they continuously received feedback from their supervisor. If students are to improve clinical performance and safety, feedback is critical to overcome weaknesses in skills and promote competence and quality of nursing care as well as a safe practice environment.

With regard to the overall satisfaction of the supervision received, more than half (56.2%) of the participants reported satisfaction with the supervision they received from their mentor. T-tests revealed that there was no significant agreement with two of the statements that participants felt

they received individual supervision and that they continuously received feedback from their supervisors. The open-ended questions revealed that some students had negative experiences, which included lack of supervision to minimal supervision and difficulties with one-to-one supervision. Thus, it can be concluded that there are gaps in supervision during clinical practice.

6.3.8 Role of the nurse educator

T-tests revealed that there was significant agreement amongst participants with the nurse educator enabling the integration of theory and practice. However, there was a weak correlation between the role of the nurse educator with regards to the variable: the nurse educator as enabling the integration of theory and practice and leadership style of the operational manager ($r= 0.360$). Thus, it can be concluded that nurse educators need to establish more effective communication with health care services.

With regard to the co-operation between placement staff and nurse educator/facilitator, more than half (59%) of the participants agreed that the nurse educator/facilitator was like a member of the nursing team, and that the nurse educator/facilitator and the clinical team worked together in supporting student learning, whilst less than two thirds (64.1%) agreed that the nurse educator/facilitator was capable to give his or her pedagogical expertise to the clinical team. T-tests also revealed that there was significant agreement amongst participants that there was co-operation between placement staff and nurse educator/facilitator.

With regard to the relationship among student, facilitator and nurse educator, more than half, (59.5%) of the participants agreed that the meetings between themselves, the facilitator and the nurse educator was a comfortable experience; more than half (59,5%) of participants disagreed that in their common meetings they were colleagues.

Less than two thirds (63.5%) of participants agreed that the focus of the meetings was on the student's learning needs. T-tests revealed that there was no significant agreement amongst participants with the statement "in our common meetings I felt that we were colleagues". The open-ended questions revealed that some students reflected that there was insufficient clinical facilitators and nurse educators, and some preferred correlation of theory and practice with facilitators and nurse educators in the clinical area. Papp *et al.* (2003:267) point out that even though the mentor knows the ward on which the student is practising the teacher is still more capable than the nurse mentor of pointing out the things that are important for each particular practice.

6.4 Limitations of the Study

The study had the following limitations

- The study involved only fourth year students, so the results cannot be generalised to the whole nursing program, as needs are different based on year levels. It would be good to extend the research, with the CLES+T, to include students of all year levels.
- Clinical placement was evaluated according to medical and surgical wards. Students' experiences may differ in different wards, depending on type of illness, patient care/needs, in-service education, allocation of time for student teaching and supervision. It would be good to use the CLES+T in other healthcare settings, for example, outpatient departments, community clinics, psychiatry etc.
- The study was conducted in 4 out of the 11 campuses of the KwaZulu-Natal College of Nursing. More insight will be gained if the study can be extended to all campuses, especially those that are deep rural areas, and even private nursing colleges who conduct the same programme and to other provinces.

6.5 Recommendations

Recommendations with regards to nursing education, nursing research, policy and nursing practice are proposed below:

6.5.1 Nursing Education

- Currently, students do block evaluation every time they leave college. In the clinical area a progress report is written by the registered nurse only (registered nurse perspective); students are afraid to verbalise negative aspects under comments by the student as it may affect their report negatively. No evaluation is given by the student in the clinical area. As a result of this study, it is recommended for the College to implement the CLES-T INSTRUMENT proactively, as a quality development instrument every time a student completes clinical placement to assess the quality of the clinical learning environment of the unit where they were placed (from the students' perspective) as a means to identify problems in time. Students should not be placed in areas that are low in quality in order to promote clinical learning.
- It is recommended that the nursing education institutions develop standards/ benchmarks, in conjunction with the service providers, against which the quality of the clinical learning environment can be constantly monitored and evaluated, to promote the quality of the clinical learning environment for optimal student learning, and thus improve the quality of

clinical nurse education. This should be part of the quality assurance programme in nursing education.

- From this study, it is evident that there are challenges/gaps in the supervision of students by registered nurses as 34.8% did not have any private sessions with the supervisor. It is recommended that alternative models of clinical supervision be considered to improve the quality of clinical supervision as per the Department of Health (Strategic Plan, 2012/13-2016/17).
- From this study, it is evident that there are challenges/gaps in the supervision of students by nurse educators/lecturers as 16% were not visited during their last clinical placement and the mean number of visits was 2.13 times. Therefore, it is highly recommended that nurse educators/lecturers develop an accompaniment plan in keeping with the authorizing body, the South African Nursing Council (SANC), requirements, and increase their visits to the clinical areas when students are in clinical placement to reduce the theory-practice gap. This should also be audited by the nursing education institution on a regular basis, as part of quality assurance, to improve the quality of clinical supervision, for example, quarterly.
- Over one third of students (37.1%) reported that they did not receive continuous feedback. It is therefore recommended that clinical staff, nurse educators and clinical facilitators give constructive feedback after supervision to all students; this should be annotated and signed by the recipient.

6.5.2 Nursing research

- A qualitative study should be conducted to describe the lived experiences of student nurses completing their clinical practice in the medical and surgical departments, and to compare the difference in findings when interviews are completed.
- A similar study should be conducted to evaluate professional nurses', operational managers', clinical facilitators', nurse educators' and patients' perceptions of the quality of the clinical learning environment.
- A study should be conducted on the implementation of a preceptorship model or other models of supervision to improve supervision in clinical practice in conjunction with the Department of Health (Strategic Plan, 2012 / 13- 2016 /17).
- A study should be conducted on the experiences of student nurses in the clinical learning environment after the integration of public colleges to higher education.

6.5.3 Policy

- The majority of students complained, repeatedly, about being used as workers rather than learners. It is recommended that a policy be developed to award students in nursing

programmes full student status, which accentuates student status over employee status and which prioritises learning and the achievement of learning outcomes and active student participation.

- It is recommended that standard guidelines on the role of student nurses in clinical practice need to be developed (including responsibilities, legal and ethical). This should be communicated to the service side and College, and should be part of the nursing education quality assurance programme to promote safety of patient care and prevent medicolegal hazards.
- Due to gaps in supervision by clinical nursing staff, it is recommended that standard guidelines be developed on the role of clinical staff in supporting nursing education. This should be communicated to all the professional nurses in the clinical area and, should also be part of the nursing education quality assurance programme.
- It is recommended that guidelines be formulated on key points that must be considered when developing a quality clinical learning environment, and these should also form part of a quality assurance programme, and should be communicated to the service side. This should include monitoring and evaluation of the clinical learning environment.

6.5.4 Nursing practice

- **It is recommended that the Continuing Professional Development System (CPD)** in South Africa be prioritized, fast tracked and implemented, as it an important component to ensure a positive practice environment that will enhance staff development, and which, in turn, will promote improved competence and skills development, improved staff morale and an enthusiastic workforce that promotes a positive clinical learning environment. Also, it is recommended that CPD for nurse educators be prioritized to ensure ongoing clinical competence and improve the quality of teaching, clinical accompaniment and supervision of students.
- **Positive practice environments (PPE)**, which is a strategy used to address poor quality workplaces and challenges in healthcare services, is essential for both nursing education and practice to improve the quality of healthcare. It is recommended that guidelines on positive practice environments (PPE) be prioritised and fast tracked, as it impacts on the clinical learning environment. This will enhance the pedagogical atmosphere.
- It is recommended that professional nurses be capacitated to strengthen and improve the quality of clinical teaching and supervision, by means of workshops/seminars and should be given a decreased clinical workload.
- Since some students mentioned they were unable to achieve their learning outcomes, it is recommended that the clinical learning outcomes are available, visible and known to staff and students in the unit.

- It is recommended that the scope of practice of students for each successive year of practice is developed and provided to professional nurses and operational managers so that they can be aware of student learning needs and assist them in this regard. Also, student allocation should be within the scope of practice not beyond it or above it.
- The study findings reveal that staff experience significant physical and mental stress, it is therefore recommended that when staff are physically and mentally exhausted they should be referred to the Employee Assistance Programme (EAP) and be sent on workshops on stress management, team building etc.

6.6 Conclusion

This study investigated the quality of the clinical learning environments in the medical and surgical units of clinical placements used by a provincial college of nursing for student nurse training. The results showed that less than two thirds of students are satisfied with their clinical learning environment, and just a little over half of students were satisfied with the supervision they received. Overall, the pedagogical atmosphere received the lowest evaluation.

In this study, the most significant factors in the clinical learning environment, supervision and nurse teacher evaluation was the philosophical grounding of nursing care on the ward and the nurse educator as enabling the integration of theory and practice. Despite the nursing staff being approachable, students still reflect a lack of belongingness in the unit, and staff need to involve students more in ward activities as part of clinical learning and to make them feel included and part of the team, not just visitors or outsiders to the unit. There is a need for staff to show more enthusiasm and commitment to student supervision under the premises of learning. More support and commitment is also needed from the operational manager, who is the main driver of the vehicle which is the clinical learning environment and who steers clinical teaching and learning forward. There was a significant positive correlation between philosophical grounding of nursing care on the ward and the construct supervisory relationship.

The most common method of supervision was group supervision. Although this method might be appropriate for busy wards and staff shortages, a combination of both approaches of team and individual supervision will be beneficial to clinical learning. Even though there was mutual interaction in the supervisory relationship, there is a need for staff to provide students with constructive feedback on their professional performance, so that students can improve on their weaknesses identified in the clinical learning environment and thus improve the quality of patient care.

There is a need for the nurse teachers to be more visible in the clinical learning environment, in order to provide additional support. Provision of a learner centred environment by nurse teachers, and engagement of students as equal partners in the learning environment, will enhance learning.

The open-ended questions, however, revealed the contrary and confirmed that there were many challenges in the clinical learning environment; all the sub-dimensions in the clinical learning environment, supervision and nurse teacher evaluation revealed gaps from analysis of the open-ended questions. Thus, there is plenty of room for improvement in all aspects of the clinical learning environment, by all stakeholders, to promote quality clinical learning, quality of care and improved patient outcomes. There is also a need for a quality assurance programme in nursing education to constantly monitor and evaluate the clinical learning environment, so that high standards and quality clinical learning can be maintained to promote the competence and safety of graduates.

BIBLIOGRAPHY

Aiken, L. H., Cimiotti, J.P., Sloane, D.M., Smith, H.L., Flynn, L., & Neff, D.N. 2011. The effects of nurse staffing and nurse education on patient deaths in hospitals with different nurse work environments. *Med Care*, 49 (12): 1047-1053.

Aiken, L. H., Sloane, D.M., Bruyneel, L., Van den Heede, K., & Sermeus, W. 2013. Nurses reports of working conditions and hospital quality of care in 12 countries in Europe. *International Journal of Nursing Studies* (2013): 143-153.

Alhaqwi, A.I. 2012. Determinants of effective clinical learning: Student and teacher perspectives in Saudi Arabia. Netherlands. Erasmus University Rotterdam. (thesis PhD)

Alhaqwi, A.I., Kuntze, J. & Van der Melen, H.T. 2014. Development of the clinical evaluation questionnaire for undergraduate clinical education: factor structure, validity and reliability study. *BMC Medical Education*, 14:44.

Algozo, M. & Peters, K. 2012. The experiences of undergraduates' assistants in nursing (AIN). *Nursing Education Today*, 32(2012):197-202.

An Bord Altranais. 2003. [www.nursingboard.ie/publication 2005/06/05](http://www.nursingboard.ie/publication%202005/06/05).

Anthony, M. & Yastik, J. 2009. Nursing students experience with incivility in clinical education. *Journal of Nursing Education*, 50(3):140-144.

Bartlett, H., Simonite, V., Westcott, E., & Taylor, H. 2000. A comparison of the nursing competence of graduates and diplomates from UK nursing programmes. *Journal of Clinical Nursing*, 9 (3):369-379.

Begley, C.M. & White, P. 2003. Irish nursing students' changing self-esteem and fear of negative evaluation during their pre-registration programme. *Journal of Advanced Nursing*, 42(4):390-401.

Bergjan, M. & Hertel, F. 2013. Evaluating students' perception of their clinical placements, testing the clinical learning environment and supervision and nurse teacher scale (CLES +T scale) in Germany. *Nurse Education Today*, 33(11):1393-1398.

Berntsen, K. & Bjork, I. 2010. Nursing students' perception of the clinical learning environment in nursing homes. *Journal of Nursing Education*, 49(1):17-22.

- Bisholt, B., Ohlsson, U., Engstron, A.K., Johansson, A.S. & Gustafsson, M. 2013. Nursing students' assessment of the learning environment in different clinical settings. *Nursing Education in Practice*, (2013): 1-7.
- Bjork, I.T., Berntsen, K., Brynildsen, G. & Hestetun, M. 2014. Nursing students' perception of their clinical learning environment in placements outside traditional hospital settings. *Journal of Clinical Nursing*, 23:2958-2967.
- Bos, E., Alinaghizadeh, H., Saarikoski, M. & Kaila, P. 2011. Validating the 'clinical learning environment, supervision and nurse teacher' CLES+T instrument in primary healthcare settings using confirmatory factor analysis. *Journal of Clinical Nursing*, 21:1785-1788.
- Boxer, E. & Kluge, B. 2000. Essential skills for beginning registered nurses. *Nurse Education Today*, 20(4):327-335.
- Bradshaw, D., Nannan, N., Laubscher, R., Groenewald, P., Joubert, J., Nojilana, B., Norman, R., Pieterse, D. & Schneider, M. 2006. South African National Burden of Disease Study 2000, Estimates of Provincial Mortality Summary Report. MRC, South Africa.
- Brammer, J. 2006. A phenomenographic study of registered nurses understanding of their role in student learning - An Australian perspective. *International Journal of Nursing Studies*, 43(2006):963-973.
- Breier, M., Wildschut, A. & Mqgqolozana, T. 2009. Nursing in a new era: the profession and education of nurse in South Africa, edited by Lisa Compton. Cape Town: HSRC Press.
- Brown, T., Williams, B. & Lynch, M. 2013. Relationship between clinical fieldwork educator performance and health professional students' perception of their practice education learning environment. *Nursing and Health Science*, 15:510-517.
- Bruce, J. C., Klopper, H.C., & Mellish, J.M. 2011. Teaching and learning the practice of nursing. 5th ed. Cape Town: Heinemann Pearson.
- Caka, E.M. & Lekalakala, S. 2013. The South African military nurses' college, pupil enrolled nurses' experiences of the clinical learning environment. *Health SA. Gesondheid*, 18(1):1-11.
- Canadian Nurses Association (CNA). 2008. Code of Ethics for registered nurses. Ottawa.
- Carlson, E. & Idvall, E. 2014. Nursing students' experience of the clinical learning environment in nursing homes: a questionnaire study using the CLES+T evaluation scale. *Nursing Education Today*, 34:1130-1134.

- Carlson, S., Kotze, W.J. & Van Rooyen, D. 2003. Accompaniment needs of first year nursing students in the clinical learning environment. *Curationis*, 26(2):30-39.
- Chan, D. 2002. Development of the clinical learning environment inventory: using the theoretical framework of learning environment studies to assess nursing students' perception of the hospital as a learning environment. *Journal of Nursing Education*, 41(2):69-75.
- Chan, D.S.K., & Ip, W.Y. 2007. Perception of hospital learning environments: A survey of Hong Kong nursing students. *Nurse Education Today*, 27:677-684.
- Chapman, R. & Orb, A. 2000. Coping strategies in clinical practice: the student nurses lived experiences. *Contemporary Nurse*, 11(1):95-102.
- Chesser-Symth, P.A. 2005. The lived experiences of general students' nurse on their first clinical placement: a phenomenological study. *Nurse Education in Practice*, 5:320-327.
- Chuan, O.L., Barnett, T. & Wahl, C. 2012. Student, tutor and staff nurse perceptions of the clinical learning environment. *Nurse Education in Practice*, 12:192-197.
- Clare, J., Edward, H., Brown, D. & White, J. 2003. Evaluating clinical learning environments, creating education practice partnerships and clinical education benchmarks for nursing. *Nurse Education in Practice*, 7(4):238-246.
- Clare, J., Edward, H., Brown, D. & White, J. 2003. Evaluating clinical learning environments, creating education practice partnerships and clinical education benchmarks for nursing. Australia: Flinders University. Phase 2, Final Report Focus, 1-137.
- Clarke, C., Gibb, C. & Ramprogus, V. 2003. Clinical learning environments: An evaluation of an innovative role to support preregistration nursing placements. *Learning in Health and Social Care*, 2:105-115.
- Corlett, J. 2000. The perceptions of nurse teachers, student nurses and preceptors of the theory practice gap in nurse education. *Nurse education Today*, 20:499-505.
- Costello, A.B. & Osborne, J. W. 2005. Best Practices in Exploratory Factor Analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research and Evaluation*, 10 (7): 173-178.
- Courtney, M., Edwards, H., Smith, S. & Finlayson, K. 2002. The impact of rural clinical placement on student nurses' employment intentions. *Collegian: Journal of the Royal College of Nursing*, 9:12-18.

- Courtney-Pratt, H., Fitzgerald, M., Ford, K., Marsden, K. & Marlow, A. 2012. Quality clinical placements for undergraduate nursing students: a cross-sectional survey of undergraduates and supervising nurses. *Journal of Advanced Nursing*, 68(6):1380-1390.
- Council for Higher Education (CHE). 2011. Work-integrated learning – Good practice guide, *HE Monitor*, 12, Aug 2011, Pretoria: CHE.
- Croxon, L., & Maginnis, C. 2009. Evaluation of clinical teaching models for nursing practice. *Nursing Education in Practice*, 9:236-243.
- Dadgaran, I., Parvizy, S. & Peyrovi, H. 2012. A global issue in nursing student's clinical learning: the theory and practice gap. *Procedia-Social and Behavioural Sciences*, 47:1713-1718.
- Dickson, C., Walker, J. & Bourgeois, S. 2006. Facilitating undergraduate nurses' clinical practicum: The lived experience of clinical facilitators. *Nursing Education Today*, 26:416-422.
- Dimitriadou, M., Papastavrou, E., Efstathiou, G. & Theodorou, M. 2014. Baccalaureate nursing students' perceptions of learning and supervision in the clinical environment. *Nursing and Health Sciences*, 2014:1-6.
- D'Souza, M.S., Venkatesaperumal, R., Radhakrishnan, J. & Balachandra, S. 2013. Engagement in clinical learning environment among nursing students: Role of nurse educators. *Open Journal of Nursing*, 2013(3):25-32.
- D'Souza, M.S., Karkada, S.N., Parahoo, K. & Venkatesaperumal, R. 2015. Perception of and satisfaction with the clinical learning environment among nursing students. *Nurse Education Today*, 35: 833-840.
- Dunn, S.V. & Burnett, P. 1995. The development of a clinical learning scale. *Journal of Advanced Nursing*, 22, 1166-1173.
- Duffy, A. 2009. Guiding students through reflective practice - The preceptors experience. A qualitative descriptive study. *Nursing Education in Practice*, 9:166-175.
- Du Plessis, D. 2004. Student nurses experience of a system of peer group supervision and guidance. *Health S.A.Gesondheid*, 9(2):67-69.
- Edwards, H., Smith, S., Courtney, M., Finlayson, K. & Chapman, H. 2004. Impact of clinical placement location on nursing students' competence and preparedness for practice. *Nurse Education Today*, 24(4):248-255.
- English National Board (ENB). 1993. Guidelines for Educational Audit. ENB, London.

Evans, J. 2004. Men nurses: a historical and feminist perspective. *Journal of Advanced Nursing*, 47(3):321-328.

Farrell, G.A. & Coombes, L. 1994. Student nurse appraisal of placement (SNAP): an attempt to provide objective measures of the learning environment based on qualitative and quantitative evaluations. *Nurse Education Today* 14, 331–336.

Field, D. 2004 Moving from novice to expert – the value of learning in clinical practice: A literature review, *Nurse Education Today*, 24:560-565.

Gaberson, K.B. & Oermann, M.H. 2010. Clinical teaching strategies in nursing. *New York. Springer*, 1-12.

Ghiasvandian, S.H. 2004. The effect of employing clinical education associated model (CTA) on the quality of clinical education on nursing students in selected hospital in Tehran Medical Services. *Tab and Tazkiya*, 52:10-170.

Grindel, C., Patsdaughter, C., Medici, G. & Babington, L. 2003. Research for practice: Adult-health/medical-surgical nurses' perceptions of students' contributions to clinical agencies. *Medsurg Nursing*, 12(2):117-123.

Hall-lord, M.L., Theander, K. & Athlin, E. 2013. A clinical supervision model in bachelor nursing education- Purpose, content and evaluation. *Nurse Education in Practice*, 13(2013):506-511.

Hathorn, D., Machtmes, K. & Tillman, K. 2009. The lived experiences of nurses working with student nurses in the clinical environment. *The Qualitative Report*, 14(2):227-244.

Heaslip, V. & Scammell, J.M.E. 2012. Failing underperforming students: the role of grading in practice assessment. *Nurse Education in Practice*, 12(2):95-100.

Henderson, A., Winch, S. & Heel, A. 2006. Partner, Learn, Progress: A Conceptual Model for Continuous Clinical Education. *Nursing Education Today*, 26:104-109.

Henderson, A., Twentyman, M., Eaton, E. & Creedy, D. 2009. Creating supportive clinical learning environments: an intervention study. *Journal of Clinical Nursing*, (19):177-182.

Henderson, A., Cooke, M., Creedy, D. & Walker, R. 2012. Nursing students' perceptions of learning in practice environments: A review. *Nurse education today*, 32(2012):299-302.

Hood, K., Cant, R., Leech, M., Baulch, J. & Gilbee, A. 2014. Trying on the professional self: nursing students' perceptions of learning about roles, identification and teamwork of an interprofessional clinical placement. *Applied Nursing Research*, 27(2014):109-114.

- Hosoda, Y. 2006. Development and testing of a clinical learning environment diagnostic inventory for baccalaureate nursing students. *Journal of advanced Nursing*, 56 (5): 480-490.
- Houghton, C.E. 2013. Newcomer Adaptation: A lens through which to understand how nursing students fit in with the real world of practice. *Journal of Clinical Nursing*, 2013: 1-7.
- Houghton, C.E., Casey, D., Shaw, D. & Murphy, K. 2012. Students experience of implementing clinical skills in the real world of practice. *Journal of Clinical Nursing*, 22:1961-1969.
- Jeggels, J.D., Traut, A. & Africa, F. 2013. A report on the development and implementation of a preceptorship training programme for registered nurses. *Curationis*, 36(1):1-6.
- Johansson, U., Kaila, P., Ahlner –Elmqvist, M., Leksell, J., Isoaho, H. & Saarikoski, M. 2010. Clinical learning environment, supervision and nurse teacher evaluation scale: psychometric evaluation of the Swedish version. *Journal of Advanced Nursing*, 66 (9): 2085-2093.
- Kachiwala, A.Y. 2006. The learning environment and supervision of nursing students in a clinical environment. National Research and Development Centre for Welfare and Health, Finland, 37(2):25-28.
- Kachiwala, A.Y. 2006. Student nurses' opinions regarding the clinical learning environment and supervision at Malamulo hospital, Malawi. Johannesburg: University of the Witwatersrand (thesis -Masters).
- Kevin, J. 2006. Problems in the supervision and assessment of student nurses: can clinical placement be improved? *Contemporary Nurse*, 22:36-45.
- Killam, L.A. & Heerschap, C. 2012. Challenges to student learning in the clinical setting: A qualitative descriptive study. *Nurse Education Today*, 33:684-691.
- Kossioni, A.E., Lyrakos, G., Ntinalexi, I., Varela, R. & Economu, I. 2013. The development and validation of a questionnaire to measure the clinical learning environment for undergraduate dental students (DECLI). *European Journal of Dental Education*, 18(2014):71-79.
- Lait, J., Suter, E., Arthur, N. & Deutschlander, S. 2011. Interprofessional mentoring: enhancing students clinical learning. *Nurse Education in Practice*, 11(2011):211-215.
- Lambert, V. 2005. Clinical education facilitators: a literature review. *Journal of Clinical Nursing*, 14(6):664-673.
- Lekhuleni, M.E., Van der Wal, D.M. & Ehlers, V.J. 2004. Perceptions regarding the clinical accompaniment of student nurses in the Limpopo Province. *Health SA Gesondheid*, 9(3):15-27.

- Lewin, D. 2007. Clinical learning environments for student nurses. Key indices from two studies compared over a 25-year period. *Nursing Education in Practice*, 7(2007):238-246.
- Lo, R. 2002. Evaluation of a mentor-arranged clinical practice placement for student nurses. *Collegian*, 9(2):27-32.
- Lofmark, A. & Wikblad, K. 2001. Facilitating and obstructing factors for development of learning in clinical practice: A student perspective. *Journal of Advanced Nursing*, 34(1):43-50.
- Mabuda, B.T. 2006. Nursing students' experiences during clinical practice in the Limpopo Province. Pretoria. University of South Africa. (Dissertation – MCur).
- Magnani, D., Di Lorenzo, R., Bari, A., Pozzi, S., Del Giovani, C. & Ferri, P. 2014. The undergraduate nursing student evaluation of the clinical learning environment: an Italian survey. *Prof inferm*, 2014 (67):55-61.
- Masakona, R. 2013. Enhancement of clinical teaching for undergraduate students in Primary Health Care Facilities. Potchefstroom. NWU. (Dissertation – MCur).
- Matsumura, G., Callister, L.C., Palmer, S., Cox, A.H. & Larsen, L. 2004. Staff nurse perceptions of the contributions of students to clinical agencies. *Nursing Education Perspectives*, 25(6):297-303.
- Meerah, T.S.M. & Halim, L. 2011. Improve feedback on teaching and learning at the university through peer group. *Procedia Social and Behavioural Sciences*, 18 (2011) :633-637.
- Midgley, K. 2006. Pre-registration student nurses' perception of the hospital-learning environment during clinical placements. *Nurse Education Today*, 26:338-345.
- Miles, M.B. & Huberman, A.M. 1994. *Qualitative Data Analysis*. Sage Publications, London.
- Moghimi, M., Nooryan, K., Karimi, Z., Hossini, S.M., Salari, M., Afrasiabifar, A., Moghimi, M., Abidi, H., Momeni, E., Rabani, M.R. & Gohargani, M. 2012. Obstacles to Clinical Education from the viewpoint of nursing students of Yasuj University of Medical Sciences. *Life Sciences Journal*, 9(4):5222-5225.
- Mothiba, T.M., Lekhuleni, M.E., Maputle, M.S. & Nemathaga, L.H. 2012. University of Limpopo student nurses' clinical learning experiences in a public hospital at the Capricorn district, Limpopo Province, South Africa. *African Journal for Physical, Health Education, Recreation and Dance*, September (supplement 2), 195-204.

Makaka, M.M. 2012. A guide to appropriate use of correlation coefficient in medical research. *Malawi Medical Journal*, 24 (3): 69-71.

Muldowney, Y. & Mckee, G. 2011. Nurses new to intensive care: perceptions of their clinical learning environment. *Nursing in Critical Care*, 16(4):201-209.

Murphy, F., Rosser, M., Bevan, R., Warner, G. & Jordan, S. 2012. Nursing student experiences and preferences regarding hospital and community placements. *Nursing Education in Practice*, 12(3):170-175.

Nash, R. 2007. Collaboration in clinical nursing education: development, implementation and evaluation of an innovative model of clinical education for undergraduate nursing students. Australia. Queensland university of Technology. (thesis PhD)

Nash, R. & Calleja, P. 2014. Leading clinical learning leadership and clinical education. Workshop 1: Clinical education through a leadership lens. PowerPoint presentation. Queensland university of Technology.

Nasrin, H., Soroor, P. & Soodabeh, J. 2012. Nursing challenges in motivating students through clinical education: A grounded theory study. *Nursing Research and Practice*, (2012):1-7.

National Health Amendment Act see South Africa

NEA see Nurse Educators' Association

Neshuku, H. & Justus, A.H. 2015. Experiences of registered and student nurses regarding the clinical supervision in medical and surgical wards: Developing an educational program to support registered nurses. *International Journal of Medicine*, 3(2):87-97.

Nielsen, A.E.; Noone, J.; Voss, H. & Mathews, L.A. 2013. Preparing nursing students for the future. An innovative approach to clinical education. *Nurse Education in Practice*, 13:301-309.

Newton, M., Jolly, B.C., Ockerby, C.M. & Cross, W.M. 2010. A Clinical Learning Environment Scale: a factor analysis. *Journal of Advanced Nursing*, 66:1371-1481.

Newton, J.M., Jolly, B.C., Ockerby, C.M. & Cross, W.M. 2012. Student centeredness in clinical learning: the influence of the clinical teacher. *Journal of Advanced Nursing*, (2012): 2331-2340.

Nurse Educators Association, Johannesburg chapter, 2013. www.edunurse.co.za.

- O'Mara, L., McDonald, J., Gillespie, M., Brown, H. & Miles, L. 2014. Challenging clinical learning environments: Experiences of undergraduate nursing students. *Nursing Education in Practice*, 14:208-213.
- Orton, H., Prowse, J. & Millen, C. 1994. In the best place? *Nursing Times* 90 (10), 46–48.
- Papastavrou, E., Lambrinou, E., Tsangari, H., Saarikoski, M. & LeinoKilpi, H. 2010. Student nurses experience of learning in the clinical learning environment. *Nurse Education in Practice*, 10:176-182.
- Papathanasiou, I.V., Tsaras, K. & Sarafis, P. 2014. Views and perceptions of nursing students on their clinical learning environment: Teaching and learning. *Nurse Education Today*, 34:57-60.
- Papp, I., Markkanen, M. & Von Bonsdorff, M. 2003. Clinical environment as a learning environment: student nurses' perceptions concerning clinical learning experiences. *Nurse Education Today*, 23(4):262-268.
- Payne, L.K. & Claspie, T. 2014. Associations between baccalaureate student perceptions of educational environment and HESI scores and GPA. *Nurse Education Today*, 34: e64-e68.
- Pearcey, P. & Draper, P. 2008. Exploring clinical nursing experiences: Listening to student nurses. *Nurse Education Today*, 28: 595-601.
- Pearcey, P.A. & Elliot, B.E. 2004. Student impressions of clinical nursing. *Nurse Education Today*, 24(5):382-387.
- Perli, S. & Brugnonli, A. 2009. Italian nursing student perception of their clinical learning environment as measured with the CLEI tool. *Nurse Education Today*, 29:886-890.
- Pocket Oxford dictionary. 2007. 3rd ed. Oxford: Oxford University Press.
- Polit, D.F. & Beck, C.T. 2012. Resource manual for nursing research. Philadelphia: Wolters Kluwer Health/ Lippincott Williams & Wilkins.
- Polit, D.F. & Beck, C.T. 2017. Nursing research: generating and assessing evidence for nursing practice. 10th edition. Philadelphia, Wolters Kluwer Health.
- Prato, D.A., Bankert, E., Grust, P. & Joseph, J. 2011. Transforming nursing education: a review of stressors and strategies that support students' professional socialization. *Advances in Medical Education and Practice*, 2011 (2): 109-116.
- Reed, S. & Price, J. 1991. Audit of clinical learning areas. *Nursing Times* 87 (27), 57–58.

Rezaee, R. & Ebrahimi, S. 2013. Clinical learning environment at Shiraz Medical School. *Acta Medica Iranica*, 51(1):62-65.

Rikhotso, S.R. 2010. Clinical accompaniment in a rural hospital: student and professional nurse's experience. Potchefstroom: North West University. (Dissertation -MCur)

Roberts, D. 2008. Learning in clinical practice: the importance of peers. *Nursing Standard*, 23(12):35-41.

Robinson, C.P. 2009. Teaching and clinical educator competency: bringing two worlds together. *International Journal of Nursing Education Scholarship*, 6(1):1-14.

SA see South Africa

SA DOH see South African Department of Health

Saarikoski, M., Isoaho, H., Warne, T. & Leino-Kilpi, H.L. 2008. The nurse teacher in clinical practice: developing the new sub dimension to the clinical learning environment supervision (CLES) scale. *International Journal Nursing Studies*, 45:1233-1237.

Saarikoski, M. & Leino-Kilpi, H. 2002. The clinical learning environment & supervision by staff nurses: developing the instrument. *International Journal of Nursing Studies*, 39:259-267.

Saarikoski, M. 2002. Clinical learning environment and supervision. Development and validation of the CLES evaluation scale. Finland: University of Turku. (Thesis-PhD).

Saarikoski, M. 2003. Mentor relationship as a tool of professional development of student nurses in clinical practice. *The International Journal of Psychiatric Nursing Research*, 9(1):1014-1024.

Saarikoski, M., Leino-Kilpi, H. & Warne, T. 2001. Clinical learning environment and supervision: testing a research instrument in an international comparative study. *Nursing Education Today*, 22: 340-349.

Saarikoski, M., Isoaho, H., Leino-Kilpi, H. & Warne, T. 2005. Validation of the Clinical Learning Environment and Supervision Scale. *International Journal of Nursing Education Scholarship*, 2(1):1-19.

Saarikoski, M., Marrow, C., Abreu, W., Saarikoski, M., Saarikoski, M., Riklikiene, O. & Ozbicakci, S. 2007. Students experience of supervision and mentorship in clinical practice: A cross cultural perspective. *Nurse Education in Practice*, 7:407-415.

Saarikoski, M., Kaila, P., Lambrinou, E., Canaveras, R.M.P., Tichelaar, E., Tomietto, M. & Warne, T. 2013. Students experiences of co-operation with nurse teacher during their clinical placements: An empirical study in a western European context. *Nurse Education in Practice*, 13(2013):78-82.

Salamanson, Y., Bourgeois, S., Everett Weaver, R., Peters, K. & Jackson, D. 2011. Psychometric testing of the abbreviated clinical learning environment inventory (CLEI-19). *Journal of Advanced Nursing*, 67(12):2668-2676.

Salamanson, Y., Everett, B., Halcomb, E., Hutchinson, M., Jackson, D., Mannix, J., Peters, K. & Weaver, R. 2015. Unravelling the complexities of nursing students' feedback on the clinical learning environment: A mixed methods approach. *Nurse Education Today*, 35(1):206-211.

Salaminen, L., Stolt, M., Saarikoski, M., Suikkala, A., Vaartio, H. & Leino-Kilpi, H. 2010. Future challenges for nursing education- a European perspective. *Nurse Education today*, 30:233-238.

SANC see South African Nursing Council (SANC)

Sand--Jecklin, K. 2009. Assessing nursing student perceptions of the clinical learning environment: refinement and testing of the SECEE inventory. *Journal of nursing measurement*, 17(3): 232-246.

Sedgwick, M. & Harris, S. 2012. A critique of the undergraduate nursing preceptorship model. *Nursing Research and Practice*, 2012:1-6.

Shailer, B. 1990. Clinical learning environment audit. *Nurse Education Today* 10, 220–227.

Sharghi, N.R., Alami, A., Khosravan, S., Mansoorian, M.R. & Ekrami, A. 2015. Academic training and clinical placement problems to achieve nursing competency. *Journal of Advances in Medical Education and Professionalism*, 3(1):15-20.

Sharif, F. & Masoumi, S. 2005. A qualitative study of nursing students' experiences of clinical practice. *BMC Nursing*, 4(6):1-7.

Skaalvik, M.W., Normann, H.K. & Henriksen, N. 2011. Clinical learning environment and supervision: experiences of Norwegian nursing students- a questionnaire survey. *Journal of Clinical Nursing*, 20(15-16):2294-2304.

Small, L., Pretorius, L., Walters, A. & Ackerman, M.J., 2011, 'A surveillance of needle-stick injuries amongst student nurses at the University of Namibia', *Health SA Gesondheid*, 16(1):1-

Smedley, A., & Morey, P. 2009. Improving learning in the clinical nursing environment: perceptions of senior Australian bachelor of nursing students. *Journal of Research in Nursing*, 15:75–.

South Africa. Department of Health. 2011. National Core Standards for health establishments in South Africa. Tshwane.

South Africa. 2013. National Health Amendment Act 12 of 2013

South Africa. Department of Health. 2012. Strategic plan for nurse education, training and practice 2012/13 - 2016/17. Pretoria.

South Africa. 2013. Statistics South Africa: Mortality and causes of death in South Africa, 2013, findings from death notification. Statistical release P03093. www.statsa.gov.za

South Africa. 2014. Statistics South Africa: Mid-Year Population Estimates 2014.

South African Department of Health (SA DoH). 2015. Ethics in health research. 2nd Ed. Pretoria: DOH.

South African Nursing Council (SANC). 1992. The philosophy and policy of the South African Nursing Council with regard to professional nursing education. R425. Pretoria: South African Nursing Council.

South African Nursing Council. 1985. Approval of and minimum requirements for education and training of a nurse (general, psychiatric and community) and midwife leading to registration. Regulation 425 of 22 February 1985 as amended. Pretoria: SANC.

South African Nursing Council. 2005. Nursing Act 33 of 2005. Pretoria. South African Nursing Council.

South African Nursing Council Statistics: Annual statistics 2012-2016. www.sanc.co.za/stats/Stat2016/Disciplinary%20stats%202016.pdf website

Solvoll, B.A. & Heggen, K.M. 2010. Teaching and learning care – exploring nursing students' clinical practice. *Nurse Education Today*, 30:73-77.

Spouse, J. 2001. Work-based learning in health care environments. *Nursing Education in Practice*, (2001)1:12-18.

SPSS (IBM Corp. Released 2008. IBM SPSS Statistics for Windows, Version 17.0. Chicago: IBM Corp).

- Stockhausen, L.J.2004. Learning to become a nurse: Students reflections on their clinical experience. *Australian Journal of Advanced Nursing*, 22 (3) :8-14.
- Suikkala, A., Leino-Kilpi, H., & Katajisto, J. 2008. Factors related to the nursing student-patient relationship: The students' perspective. *Nurse Education Today*, 28: 539-549.
- Sundler, A.J., Björk, M., Bisholt, B., Ohlsson, U., Engström, A.K. & Gustafsson, M. 2014. Student nurses' experiences of the clinical learning environment in relation to the organization of supervision: A questionnaire survey. *Nurse Education Today*, 34(2014): 661-666.
- Tanner, C. 2006.The next transformation: clinical education. *Journal of Nursing Education*, 45:99-100.
- Tavakol, M. & Dennick, R. 2011. Making sense of Cronbach's Alpha. *International Journal of Medical Education*, 2011 (2): 53-55.
- Teeter, M., 2005. Formula for success: Addressing unsatisfactory clinical performance. *Nurse Educator*, 30(3):91-92.
- Thobakgale, E.M., Lekhuleni, M.E. & Kgole, J.C. 2013. Learner nurses' absenteeism in the nursing schools at Capricorn District, Limpopo Province, South Africa. *African Journal for Physical, Health Education, Recreation and Dance*, March (supplement 1):182-192.
- Timmins, F. & Kaliszer, M. 2002. Aspects of nurse education programmes that frequently cause stress to nursing students: fact-finding sample survey. *Nurse Education Today*, 22:203-211.
- Tiwaken, S.U., Caranto, L.C. & David, J.J.T. 2015. The Real World: Lived Experiences of Student Nurses during Clinical Practice. *International Journal of Nursing Science*, 2015, 5(2):66-75.
- Vizcaya-Moreno, M.F., Perez-Canaveras, R.M., Juan, J.D. & Saarikoski, M. 2015. Development and psychometric testing of the Clinical Learning Environment, Supervision and Nurse Teacher Scale Evaluation Scale (CLES+T): The Spanish Version. *International Journal of Nursing Studies*, 52:361-367.
- Wall, P., Andrus, P.M. & Morrison, P. 2014. Bridging the Theory Practice Gap through Clinical Simulations in a Nursing Undergraduate Degree Program in Australia. *International Journal of Learning, Teaching and Educational Research*, 8:127-135.
- Warne, T., Johannson, U.B., Papastrovrou, E., Tichelaar, E., Tomietto, M., Van den Bosscho, K., Moreno, M.F.V. & Saarikoski, M. 2010. An exploration of the clinical learning environment of nursing students in 9 European countries. *Nurse Education Today*, 30:809-815.

Watson, P.B., Seaton, P., Sims, D.; Jamieson, I., Mountier, J., Whittle, R. & Saarikoski, M. 2014. Exploratory Factor Analysis of the Clinical Learning Environment, Supervision and Nurse Teacher Scale (CLES+T). *Journal of Nursing Measurement*, 22(1)2014:164-180.

WHO see World Health Organization (WHO)

World Health Organisation (WHO). 2013. Midwifery educator core competencies. Geneva: WHO.

Young, M., Simpson, V., McComb, S.A., Kirkpatrick, J.M., La Lopa, J.M. & Bullard, K.S. 2014. Towards creating an optimal acute care clinical learning environment: Insights from staff, faculty and students. *Journal of Nursing Education*, 53(3):42-45.

Zhang, Z.X., Luk, W., Arthur, D. & Wong, T. 2001. Nursing competences: personal characteristics contributing to effective performance. *Journal of Advanced Nursing*, 33(4):467-474.

ANNEXURES

Annexure A. NWU Ethical Permission



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

Private Bag X6001, Potchefstroom,
South Africa, 2520

Tel: (018) 299-4900
Faks: (018) 299-4910
Web: <http://www.nwu.ac.za>

Institutional Research Ethics Regulatory Committee

Tel: +27 18 299 4849

Email: Ethics@nwu.ac.za

2016/09/13

ETHICS APPROVAL CERTIFICATE OF STUDY

Based on approval by Health Research Ethics Committee (HREC) after being reviewed at the meeting held on 10/02/2016, the North-West University Institutional Research Ethics Regulatory Committee (NWU-IRERC) hereby approves your study as indicated below. This implies that the NWU-IRERC grants its permission that provided the special 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: A survey of the quality of the clinical learning environments of placement settings as perceived by students from a provincial nursing college.																															
Study Leader/Supervisor:	Prof SJC van der Walt																														
Student:	Y Naidoo																														
Ethics number:	<table border="1"><tr><td>N</td><td>W</td><td>U</td><td>-</td><td>0</td><td>0</td><td>0</td><td>0</td><td>3</td><td>-</td><td>1</td><td>6</td><td>-</td><td>A</td><td>1</td></tr><tr><td colspan="3">Institution</td><td colspan="5">Study Number</td><td colspan="2">Year</td><td colspan="5">Status</td></tr></table>	N	W	U	-	0	0	0	0	3	-	1	6	-	A	1	Institution			Study Number					Year		Status				
N	W	U	-	0	0	0	0	3	-	1	6	-	A	1																	
Institution			Study Number					Year		Status																					
Application Type:	Single study																														
Commencement date:	2016-09-09																														
Risk:	Medium																														
Continuation of the study is dependent on receipt of the annual (or as otherwise stipulated) monitoring report and the concomitant issuing of a letter of continuation up to a maximum period of three years.																															

Special conditions of the approval (if applicable):

- Translation of the Informed consent document to the languages applicable to the study participants should be submitted to the HREC (if applicable).
- Any research at governmental or private institutions, permission must still be obtained from relevant authorities and provided to the HREC. Ethics approval is required BEFORE approval can be obtained from these authorities.

General conditions:
While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, please note the following:
<ul style="list-style-type: none">• The study leader (principle investigator) must report in the prescribed format to the NWU-IRERC via HREC:<ul style="list-style-type: none">- annually (or as otherwise requested) on the monitoring of the study, and upon completion of the study- 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.• Annually a number of studies may be randomly selected for an external audit.• The approval applies strictly to the proposal as stipulated in the application form. Would any changes to the proposal be deemed necessary during the course of the study, the study leader must apply for approval of these amendments at the HREC, prior to implementation. Would there be deviation from the study proposal without the necessary approval of such amendments, the ethics approval is immediately and automatically forfeited.• The date of approval indicates the first date that the study may be started.• In the interest of ethical responsibility the NWU-IRERC and HREC retains the right to:<ul style="list-style-type: none">- 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:<ul style="list-style-type: none">. any unethical principles or practices of the study are revealed or suspected,. it becomes apparent that any relevant information was withheld from the HREC or that information has been false or misrepresented,. the required amendments, annual (or otherwise stipulated) report and reporting of adverse events or incidents was not done in a timely manner and accurately,. new institutional rules, national legislation or international conventions deem it necessary.• HREC can be contacted for further information or any report templates via Ethics-HRECAppl@nwu.ac.za or 018 299 1206.

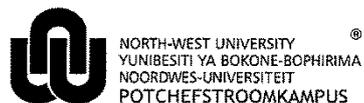
The IRERC would like to remain at your service as scientist and researcher, and wishes you well with your study. Please do not hesitate to contact the IRERC or HREC for any further enquiries or requests for assistance.

Yours sincerely

Prof LA Du Plessis
Digitally signed by Prof LA Du Plessis
Date: 2016.09.13
14:35:15 +02'00'

Prof Linda du Plessis
Chair NWU Institutional Research Ethics Regulatory Committee (IRERC)

Annexure B. INSINQ Approval



Privaatsak X05, Noordbrug
Suid-Afrika 2522

Tel: 018 299-2000
Faks: 018 299-2999
Web: <http://www.nwu.ac.za>

16 February 2015

Proposal Review: Y. NAIDOO 24738174

Title: Quality of the clinical learning environment as rated by students from a provincial nursing college

PERC decision	
Accepted as is	
Accepted with minor revisions	✓
Proposal not accepted and needs to be resubmitted	
Other (specify): The student is invited to a meeting with the panel, to discuss the feedback on the proposal.	

Karin Minnie

Dr. Karin Minnie
North-West University, Potchefstroom Campus

Members of the Committee:

1. Dr Antoinette du Preez _____ 2. Dr Ronel Pretorius *R Pretorius* _____

3. Dr Welma Lubbe *pp* *W Lubbe* _____ 4. Dr Rina Muller _____

5. Dr Richelle van Waltsieven *(afwesig - apster)* *R van Waltsieven* _____ 5. Mr Siphso Sojane *S Sojane* _____

Annexure C. Ethics Committee of the Provincial Department Of Health Approval



health
Department:
Health
PROVINCE OF KWAZULU-NATAL

DIRECTORATE:

Physical Address: 330 Langalabaale Street, Pietermaritzburg
Postal Address: Private Bag X9051
Tel: 033 395 2805/3188/3123 Fax: 033 394 2782
Email:
www.kznhealth.gov.za

Health Research & Knowledge
Management

Reference: 93/16
KZ_2015RP12_862

Date: 6 April 2016

Dear Ms Y. Naidoo
Email: yodhi.naidoo@kznhealth.gov.za

Approval of research

1. The research proposal titled '**A survey of the quality of the clinical learning environments of placement settings as perceived by students from a provincial nursing college**' was reviewed by the KwaZulu-Natal Department of Health.

The proposal is hereby **approved** for research to be undertaken at Addinton, RK Khan, Prince Mshiyeni, Port Shepstone and Grey's Nursing Campus.

2. You are requested to take note of the following:
 - a. Make the necessary arrangement with the identified facility before commencing with your research project.
 - b. Provide an interim progress report and final report (electronic and hard copies) when your research is complete.
3. Your final report must be posted to **HEALTH RESEARCH AND KNOWLEDGE MANAGEMENT, 10-102, PRIVATE BAG X9051, PIETERMARITZBURG, 3200** and e-mail an electronic copy to hkrm@kznhealth.gov.za

For any additional information please contact Mr X. Xaba on 033-395 2805.

Yours Sincerely

Dr E Lutge
Chairperson, Health Research Committee

Date: 12/04/16

Annexure D. Gatekeeper Approval



health

Department:
Health
PROVINCE OF KWAZULU-NATAL

Physical Address: 211 Pictoriantz Street, Pietermaritzburg 3200
Postal Address: Private Bag X 9083 Pietermaritzburg 3200
Tel: 033 264 7300 Fax: 033 394 7233 Email: info.zama.mthembu@kznhealth.gov.za
www.kznhealth.gov.za

DIRECTORATE:

KwaZulu-Natal College of Nursing

Reference: Dr. S.Z. Mthembu
Date: 19 April 2016

Principal Investigator: Ms Naidoo Yodhi
Student No: 24738174
North West University

RE: Gate Keeper Permission to conduct research at the KZN College of Nursing.

TITLE: The quality of clinical learning environment as rated by students from a provincial nursing college

Dear Ms Naidoo

I have the pleasure in informing you that permission has been granted to you as per the above request by the Principal of the KZN College of Nursing.

**Data Collection site(s): Prince Mshiyeni Memorial Nursing Campus,
Addington Campus
RKKhan Campus
Greys Campus
Port Shepstone Campus**

Please note the following:

1. Please ensure that you adhere to all policies, procedures, protocols and guidelines of the Department of Health with regards to this research.
2. Permission is therefore granted for you to conduct this research at the above identified campuses after consultation with the Campus Principal.
3. The KwaZulu-Natal College and its NEI's will not be providing you with any resources for this research.
4. You will be expected to provide feedback on your findings to the Principal of the KwaZulu-Natal College of Nursing.

Thank You

Dr. S.Z Mthembu
Principal: KZN College of Nursing

Annexure E. Permission from the Campuses

Annexure E1. Permission from Campus B



DIRECTORATE:

16 ERSKINE TERRACE, SOUTH COAST, DURBAN 4001
P.O. BOX 377 DURBAN, 4000
Tel: 031-327 2959 Fax: 031- 327 3070
Email: Thebini.masango@kznhealth.gov.za
Web: www.kzncoth.gov.za

TRAINING CAMPUS ADDINGTON

13/04/2016

Mrs Y Naidoo

LETTER OF SUPPORT TO CONDUCT RESEARCH AT ADDINGTON CAMPUS

Dear Madam:

Permission is hereby granted for you to conduct your research on:

'The quality of the clinical learning environments of placement settings as perceived by students from a provincial nursing college', in our institution.

Please take cognizance of the following.

- You must adhere to all policies, procedures, protocols and guidelines of the Department regarding research
- Your research will only commence once permission is granted by KZN Health Research Committee.
- Please inform our institution before research is commenced
- Please provide a copy of your research report, to the Campus, on completion of the study

A handwritten signature in black ink, appearing to read "T. P. Masango".

Wishing you all the best for your studies

Mrs. T. P. Masango
Campus Principal

Annexure E2. Permission from Campus C



health

Department:
Health
PROVINCE OF KWAZULU-NATAL

107 Marine Drive, Shelly Beach, 7285
Private Bag X718, Port Shepstone, 4240
Tel: 029-3165222 Fax: 029-3165370 Email: nucleo@kznhealth.gov.za
www.kznhealth.gov.za

DIRECTORATE:

KWAZULU-NATAL COLLEGE OF NURSING
PORT SHEPSTONE NURSING CAMPUS

Date: 06 April 2016

Attention: Ms. Y. Naidoo
Prince Mshiyeni Campus
DURBAN
4000

Dear Ms. Naidoo

RE: REQUEST FOR PERMISSION TO CONDUCT STUDY

Your letter dated 5 November 2015 is hereby acknowledged and refers:

Permission is hereby granted for you to conduct your study at Port Shepstone Nursing Campus. Please take note of the conditions as stated by the Kwa-Zulu Natal College of Nursing. Please note that it may not be always possible to have students at your projected time due to the congested teaching timetables and other commitments.

Please make arrangements well in advance to avoid disappointment.

Best wishes

**MRS. N.G. CELE
DEPUTY PRINCIPAL
PORT SHEPSTONE NURSING CAMPUS**

Annexure E3. Permission from Campus D



health
Department:
Health
PROVINCE OF KWAZULU-NATAL

DIRECTORATE:

Postal Address: Private Bag X 900, Pietermaritzburg, 3200
Physical Address: 204, Tawana's Road, Ntshani Park, Pietermaritzburg, 3200
Tel: 033 997 3500 Fax: 033 997 3500 Email: a.ludumisa@kznhealth.gov.za
www.kznhealth.gov.za

KwaZulu Natal College of
Nursing
Grey's Campus

14th November 2016

Mrs. Y. Naidoo

Dear Mrs. Naidoo

Re: Request for permission to conduct study at Grey's Campus

Permission is granted for you to conduct research at this Campus.

Kindly liaise with Mrs. M.S. Subhan- H.O.D. Community Nursing Science at Grey's Campus to make the necessary arrangements for you to conduct research at this Campus.

You are wished all the best with your studies.

Yours Faithfully

J.D. Mzila (Mrs.)
Acting Campus Principal

Annexure E4. Permission from Campus A

From:Reddy Jaya
Sent: 20 April 2016 03:40 PM
To: Naidoo Yodhi
Subject: RE: Ethical approval to conduct research at R.K.KhanNursing Campus

Good afternoon Yodhi

Permission has been granted for you to conduct your research at our Campus. Please make prior arrangements before you commence with your research.

Kind Regards

Mrs J Reddy

From: Naidoo Yodhi
Sent: 14 April 2016 07:21
To: RKKhanCampusPrincipalandRegistrar
Subject: FW: Ethical approval to conduct research at R.K.KhanNursing Campus

Good day.

The above matter refers;

I hereby wish to request for permission and approval to conduct research on: *the quality of the clinical learning environments of placement settings as perceived by students from a provincial nursing college.*

I am a clinical facilitator at Prince Mshiyeni Campus, currently studying for my Master's Degree at the North West University, Potchefstroom campus. The research will be conducted under the guidance and supervision of Professor Christa Van Der Walt from the School of Nursing Science, North West University, Potchefstroom Campus.

Herein find the attached ethical approval letter from the **University (NWU)** and the principal of KZN CN.

Kindly note that this approval letter is required by the NWU ethics committee to grant final approval for the study.

Hoping this will meet your immediate approval. Please note this is my third letter of request with no response.

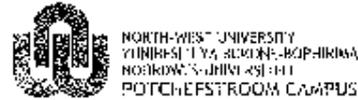
Yours Faithfully

Ms Y. Naidoo

Cell (0836100489)

Email: Yodhi.Naidoo@kznhealth.gov.za / naidooyodhi@gmail.com

Annexure F. Informed Consent



PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM FOR PARTICIPANTS (fourth-year nursing students)

TITLE OF THE RESEARCH PROJECT: **Quality of the clinical learning environment of placement settings as perceived by provincial college nursing students**

REFERENCE NUMBERS: NWU-00006-16-S1

PRINCIPAL INVESTIGATOR: Yodhi Naidoo

ADDRESS: 227 High Terrace
Crossmoor
Chatsworth
4092
Tel (031) 907 8766
Email address: Yodhi.Naidoo@kzihealth.gov.za

CONTACT NUMBER: (031) 907 8766

You are being invited to take part in a research project that forms part of my Masters degree studies. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher or mediator any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are **free to decline to participate**. If you say no, this will not affect you negatively in any way whatsoever. You are also **free to withdraw** from the study at any point, even if you do agree to take part.

This study has been approved by the **Health Research Ethics Committee of the Faculty of Health Sciences of the North-West University (NWU-00006-16-S1)** and

Annexure G. Consent to Use the Instrument

51027672

https://www.researchprotocols.org/2015/1/e1027672

Mikko Saarikoski
 RN, PhD, Principal Lecturer
 e-mail: mikko.saarikoski@turkuamk.fi
 Postal address:
 Turku University of Applied Sciences
 PL 20, 20701 Turku
 Finland

Agreement form

15.04.2008

Agreement for using the Clinical Learning Environment, Supervision and Nurse Teacher (CLES+T) evaluation scale

I agree to abide by the following principles in using the CLES+T evaluation scale as a research tool in my/ our empirical study:

- The CLES should only be used in its original form (minor alterations are permissible, for example in order to ensure the terminology of CLES reflects different cultural aspects). All such changes should be reported to the authors.
- Any research reports that have used the CLES should acknowledge the original source by using the following reference: Saarikoski et al. 2008. The nurse teacher in clinical practice: Developing the new sub-dimension to the Clinical Learning Environment and Supervision (CLES) scale. *International Journal of Nursing Studies* 45: 1233-1237.
- The instrument cannot be published in its original form (e.g. as Appendix) without the permission of the copyright holder, Elsevier Science Ltd, UK. The CLES+T scale has been published originally in the above article.
- Authors should be sent one copy of publications in which the CLES+T scale has been used as a research instrument (see the address above)

Name of the re-user: Prof SJC van der Walt

SJC van der Walt 22/09/2015
 your signature

Research organisation: UNSW Health Area: Quality in Nursing and Midwifery

Address: Potchefstroom Campus
North-West University

Name of the research (or research project): The quality of the clinical learning environments of placement settings as perceived by nursing students

Language version: English from a provincial nursing college a survey study.

I give the permission: [Signature]
 Mikko Saarikoski

Date: 25th Sept. 2015

Please, complete this form informing about your study and send two signed copies to the address above (or scan a copy - signed by you - as a pdf-file and send it to me using e-mail). The filled form (signed by me) will be returned to you.

2/2 NAIS

Annexure H. Clinical Learning Environment, Supervision and Nurse Teacher Evaluation Survey

QUALITY OF THE CLINICAL LEARNING ENVIRONMENT OF PLACEMENT SETTINGS AS PERCEIVED BY PROVINCIAL NURSING STUDENTS

Dear Participant

Thank you for indicating your willingness to take part in this study. The aim of the study is to determine the quality of the clinical learning experience in medical and surgical units in South Africa.

Completing the questionnaire might take you 10-20 minutes. There is no reason to believe that you can be harmed by taking part in this study. Your participation is completely voluntary and you will remain anonymous. Please do not write your name or that of any other person or institution in the questionnaire.

Completing the questionnaire implies your consent and while all information is anonymous it will not be possible to identify your information should you decide to withdraw from the study, which of course, you may do without giving a reason.

Without your input we will not know what the quality of the clinical learning experience is for you and will not be able to address areas of concern. This study will highlight areas where we need urgent interventions to ensure that nursing students learn best in practice.

Please complete the questionnaire in FULL as areas with no response makes a questionnaire of null value. We need your honest opinion based on your experience during clinical placement.

CLINICAL LEARNING ENVIRONMENT AND SUPERVISION (CLES) EVALUATION SCALE

SECTION A: DEMOGRAPHIC DATA

Code:

Please tick in the box corresponding to your choice or write your answers in the space provided

1. Name of your institution

Addington	
R.K.Khan	
Prince Mshiyeni Memorial	
Port Shepstone	
Greys	

2. Age in years

1. <20years	2. 20-29	3. 30-39	4. >40years
-------------	----------	----------	-------------

3. Gender

1. Male	2.Female
---------	----------

4. Race

Colored	Black	Asian	White
---------	-------	-------	-------

5. Did you have previous hospital nursing experience prior to commencement of the 4-year course?

Yes	No
-----	----

5. Did you have previous hospital nursing experience prior to commencement of the 4-year course?

Yes	No
-----	----

6. Have you repeated any year/s?
or semester of study in the 4year course?

Yes	No
-----	----

7. In which ward were you in the last clinical placement?

1. Medical	2. Surgical
------------	-------------

8. Duration of placement in weeks

.....weeks

9. How many times did you meet the
the nurse educator/lecturer for the
course during the last clinical placement

..... times

10. How satisfied were you in the last clinical placement

1. unsatisfied	2. Rather unsatisfied	3. Neither unsatisfied nor satisfied	4. Rather satisfied	5. very satisfied
----------------	-----------------------	--------------------------------------	---------------------	-------------------

11. Patients average stay in the ward.

1). Few days	2). 1-2 weeks	3). 3-4 weeks	4). Over a month
--------------	---------------	---------------	------------------

12. Physical stress on nursing staff in the ward.

1). No physical stress	2). Low physical stress	3). High physical stress	4). Very high physical stress
------------------------	-------------------------	--------------------------	-------------------------------

13. Mental stress load on nursing staff in the ward.

1). No mental stress	2). Low mental stress	3). High mental stress	4). Very high mental stress
----------------------	-----------------------	------------------------	-----------------------------

SECTION B.

CLINICAL LEARNING ENVIRONMENT, SUPERVISION AND NURSE TEACHER (CLES+T) evaluation during latest placement (Saarikoski & Leino-Kilpi 2008)

The following statements concerning the learning environment, supervision and the role of nurse teacher are grounded into main areas, each with their own title.

For each statement, please choose the option that best describes your own opinion.

The learning environment

Pedagogical atmosphere:					
<i>The following statements concerning the supervisory relationship. For each statement, please choose the option that best describes your own opinion.</i>	Fully disagree	Disagree to some extent	Neither agree nor disagree	Agree to some extent	Fully agree
14. The staff were easy to approach					
15. I felt comfortable going to the ward at the start of my shift					
16. During staff meetings (e.g. before shifts) I felt comfortable taking part in the discussions					
17. There was a positive atmosphere in the unit					
18. The staff were generally interested in student supervision					
19. The staff learned to know the student by their personal name					
20. There were sufficient meaningful learning situations on the unit					
21. The learning situations were multidimensional in terms of content					
22. The unit can be regarded as a good learning environment					

Leadership style of the operational manager (OM):

The following statements concerning the supervisory relationship. For each statement, please choose the option that best describes your own opinion.

Fully disagree

Disagree to some extent

Neither agree nor disagree

Agree to some extent

Fully agree

23. The OM regarded the staff on her/his ward as a key resource

24. The OM was a team member

25. Feedback from the OM could easily be considered as a learning situation

26. The effort of individual employees was appreciated

Philosophic grounding of nursing care on the ward

27. The ward's nursing philosophy was clearly defined

28. Patients received individual nursing care

29. There were no problems in communication related to patients' care

30. Documentation of nursing (e.g. nursing plans, daily recording of nursing procedures etc.) was clear

THE SUPERVISORY RELATIONSHIP

In this form, the concept of supervision refers to guiding, supporting and assessing of nursing students by clinical staff nurses. Supervision can occur as individual supervision, or as group (or team) supervision. The concept of mentor means a named personal supervisor.

THE ROLE OF THE SUPERVISOR

31. Occupational title of the supervisor

1. registered nurse	2. operational manager	3. Other
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32. METHOD OF SUPERVISION (please tick one alternative only)

33. I did not have a supervisor at all	1.
34. A personal supervisor was named, but the relationship with this person did not work during the placement	2.
35. The supervisor changed during the placement, even though no change had been planned	3.
36. Supervisor varied according to shift or place of work	4.
37. Same supervisor had several students and was a group supervisor rather than an individual supervisor	5.
38. A personal supervisor was named and our relationship worked during this placement	6.

39. Other method of supervision, please specify?

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40. How often did you have separate (private) supervision sessions with the supervisor (without the nurse educator)?

1 Not at all	2. once or twice during the course	3. Monthly	4. about once a week	5. more often
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The content of supervisory relationship:

<i>The following statements concern the supervisory relationship. For each statement, please choose the option that best describes your own view.</i>	Fully disagree	Disagree to some extent	Neither agree nor disagree	Agree to some extent	Fully agree
41. My supervisor showed a positive attitude towards supervision					
42. I felt that I received individual supervision					
43. I continuously received feedback from my supervisor					
44. Overall, I am satisfied with the supervision I received					
45. The supervision was based on a relationship of equality and promoted my learning					
46. There was a mutual interaction in the supervisory relationship					
47. Mutual respect prevailed in the supervisory relationship					
48. The supervisory relationship was characterized by a sense of trust					

ROLE OF THE NURSE EDUCATOR/CLINICAL FACILITATOR

Nurse educator is a lecturer (employed by University or College) who is responsible for the clinical placement. Clinical facilitators are also appointed by the University of College, and are responsible for clinical accompaniment.

- 1 The following statements concerning the linking nurse educator are grounded into main areas, each with their own title.
- 2 For each statement, please choose the option that best describes your own opinion.

Nurse educator as enabling the integration of theory and practice:					
<i>The following statements concerning the supervisory relationship. For each statement, please choose the option that best describes your own opinion.</i>	Fully disagree	Disagree to some extent	Neither agree nor disagree	Agree to some extent	Fully agree
49. In my opinion, the nurse educator/facilitator was capable to integrate theoretical knowledge and everyday practice of nursing					
50. The nurse educator/facilitator was capable to operationalise the learning goals of this clinical placement					
51. The nurse educator/facilitator helped me to reduce the theory-practice gap					
Cooperation between placement staff and nurse educator/facilitator:					
<i>The following statements concerning the supervisory relationship. For each statement, please choose the option that best describes your own opinion.</i>	Fully disagree	Disagree to some extent	Neither agree nor disagree	Agree to some extent	Fully agree
52. Nurse educator/facilitator was like a member of the nursing team					
53. Nurse educator/facilitator was capable to give his or her pedagogical expertise to the clinical team					
54. The nurse educator/facilitator and the clinical team worked together in supporting my learning					

Relationship among student, facilitator and nurse educator:

<i>The following statements concerning the supervisory relationship. For each statement, please choose the option that best describes your own opinion.</i>	Fully disagree	Disagree to some extent	Neither agree nor disagree	Agree to some extent	Fully agree
55. The meetings between myself, facilitator and nurse educator were a comfortable experience					
56. In our common meetings I felt that we are colleagues					
57. The focus of the meetings was on my learning needs					

58. Would you recommend this placement be used in future?

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59. What would be your main reasons for recommendation of this placement?

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(adapted for South Africa, 2015)

Thank you for your time and help!

Annexure I. Mediator Confidentiality Agreement

Appendix A Confidentiality Agreement between researcher and mediator



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOPHENE-BOPHUKWA
NOORDWES-UNIVERSITEIT
POTCI EFSTROOM CAMPUS

CONFIDENTIALITY AGREEMENT BETWEEN RESEARCHER AND MEDIATOR

TITLE OF THE RESEARCH PROJECT:

The quality of the clinical learning environment as rated by students from a provincial nursing college.

REFERENCE NUMBERS:

PRINCIPAL INVESTIGATOR: Yodhi Naidoo

ADDRESS: 102 Klaarwater Road
Shallcross
4093

CONTACT NUMBER: 0836100489

I, T. Gounder (name of mediator), ID number 6107210127084
hereby agree to handle all information regarding the above-mentioned research project shared
with me by the researcher as confidential. I will not share any information to anyone except the
research team and will do so using channels that will ensure that confidentiality remains intact.

Signed at (place) Matieland on (date) 11 July 2015

T. Gounder

Signature of mediator

(Signature)

Signature of researcher

