Model development to promote Positive Clinical Learning Environments at a Tertiary Institution in Gauteng Province for the Baccalaureate Nursing Students

By

Lesego Margaret Phiri

DISSERTATION

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Supervisor: Dr Lindiwe.D. Madalane
Co-supervisor: Dr Dayanithée Chetty

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“Let my hands heal,

Overwhelm the soul with joy,

Drip love and life like juice,

To the drops,

That drip this drip with care,

Open up the cubicles of care,

I come to give life,

And not to kill,

Let these hands feel,

For into the corridors of humanity,

I oath to pledge,

That these bones can live,

Let the Nightingales sing that

Faith can move mountains...” (Thapelo Legodi)
DECLARATION

I declare that the dissertation hereby submitted to the Sefako Makgatho Health Sciences University (SMU) for the Doctor of Philosophy has not been submitted by me for a degree at this or any other University; that it is my work in design and in execution, and that all material contained herein has been duly acknowledge.

____________________________________  ________________
Phiri, L.M. (Miss)     Date
DEDICATION

I dedicate this dissertation to the Almighty God for granting me the courage and strength to undertake this study. I also thank Him for still keeping my parents alive to witness this important milestone in my life. A special dedication also goes to both my parents, my father, Motsisi Seth Phiri and my mother, Esther Motswere Phiri, who despite everything, showed faith and never stopped believing in me.

“You cannot conquer what you will not confront”

Paula White
ACKNOWLEDGEMENT

The path I travelled throughout this journey was rocky and sometimes felt like it was never going to end. However, despite these feelings of despair, I grew to understand that perseverance is a virtue. As noted by Thomas Jefferson, “Nothing can stop the man with the right attitude from achieving his goals, nothing on earth can help the man with the wrong mental attitude”. I also realised that “The twins of achievement are headwork and hard work. They go together, for neither can do the job alone” author unknown. I managed to take each day as it comes through the support of my family, friends, colleagues and my supervisors, without whom this study would not have been possible. My sincere and overwhelming appreciation goes to the following people:

- My supervisor, Dr Lindiwe Madalane for constantly keeping me on my toes and never giving up on me.
- My co-supervisor, Dr Chetty for her contributions and encouraging words.
- Professor Robyn Nash from Queensland University of Technology for granting me permission to adapt her questionnaire.
- The statistician, Professor H.S. Schoeman for helping with the interpretation and analysis of the results.
- The authorities of the hospital where this study was conducted for granting permission to collect data in their premises.
- My kids (blood and non-blood), Kegomoditswe, Thabiso, Refilwe, Tefo, Ofentse and Karabo for their support.
- My partner, Mojo Ngubeni for everlasting love, encouragement and support.
- My colleagues at work and friends for their constant encouragement.
- Members from my church for their support and understanding when I could not actively participate in church activities during the course of the study.

Their efforts are sincerely appreciated. May the good Lord bless them abundantly!
ABSTRACT

TITLE: Model development to promote positive clinical learning environments at tertiary institution in Gauteng Province for the Baccalaureate nursing students

The aim of this study was to develop a model to promote positive clinical learning environments (CLE) for the nursing students at tertiary in Gauteng Province. This study was conducted in three phases, utilising a theory generating, exploratory and descriptive mixed model research design. The objectives of phase 1, objective 1-4, sought to identify the main concepts related to the CLE through literature review and from the analysed data. Data was collected from a convenience sample comprising of all second, third and fourth year nursing students at a selected nursing education institution, as well as all the registered nurses from the selected hospital working. Quantitative and qualitative data were collected using a CLE Assessment Questionnaire, comprising 28 items for nursing students, and 19 items for hospital registered nurses, rated on a five-point Likert scale and three structured open-ended questions, adapted from Nash’s (2007) Quality of Practice Environment scale (QPE) with permission. Quantitative data was analysed using inferential statistics, while qualitative data was analysed thematically. The findings from quantitative data demonstrated that the nursing students perceived the current CLE in negative light. Qualitative data provided themes for the preferred forms of CLE. Conversely, quantitative findings from the hospital registered nurses indicated that they perceived the CLE to be positive. Themes from the preferred forms of CLE from both the nursing students and hospital registered nurses, provided main concepts for model development.

Key words
Baccalaureate curriculum; clinical education, clinical learning environment; clinical practice; nursing students; positive learning environment; registered nurse
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<table>
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<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>AACN</td>
<td>American Association of Colleges of Nursing</td>
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<tr>
<td>BCUR</td>
<td>Bachelor degree</td>
</tr>
<tr>
<td>CLE</td>
<td>Clinical learning environment</td>
</tr>
<tr>
<td>CLES</td>
<td>Clinical Learning Environment Scale</td>
</tr>
<tr>
<td>CPAS</td>
<td>College Principals and Academic staff</td>
</tr>
<tr>
<td>DENOSA</td>
<td>Democratic Nursing Organisation of South Africa</td>
</tr>
<tr>
<td>DEU</td>
<td>Dedicated Education Units</td>
</tr>
<tr>
<td>FUNDISA</td>
<td>Forum for University Deans in South Africa</td>
</tr>
<tr>
<td>MTT</td>
<td>Ministerial Task Team</td>
</tr>
<tr>
<td>NACNEP</td>
<td>National Advisory Council on Nurse Education and Practice</td>
</tr>
<tr>
<td>NEA</td>
<td>Nursing education Association</td>
</tr>
<tr>
<td>NEI</td>
<td>Nursing education institution</td>
</tr>
<tr>
<td>PHEPSA</td>
<td>Private Health Education Providers of South Africa</td>
</tr>
<tr>
<td>QOTFC</td>
<td>Queens Occupational Therapists Fieldwork Collaborative</td>
</tr>
<tr>
<td>QPE</td>
<td>Quality of Practice Environment scale</td>
</tr>
<tr>
<td>R/N</td>
<td>Registered nurse</td>
</tr>
<tr>
<td>SANC</td>
<td>South African Nursing Council</td>
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<td>SA</td>
<td>South Africa</td>
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<td>SMU</td>
<td>Sefako Makgatho Health Science University</td>
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<tr>
<td>SMUREC</td>
<td>Sefako Makgatho Health Science University Research Committee</td>
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<td>UK</td>
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CHAPTER 1
ORIENTATION OF THE STUDY

1.1. INTRODUCTION
Clinical learning environments (CLE) are referred to as clinical laboratories in nursing education. Kaphagawani and Useh (2013:181) describe a clinical learning environment as a dynamic social complex environment where patient care and student learning takes place. A clinical learning environment play a pivotal role in the nursing students’ clinical learning by providing them with experiential learning (Gaberson & Oermann, 2010:9). However, the apparent inability of the clinical learning environment to fulfil this role has over the years and now more recently raised a growing concern among the nursing communities worldwide (Mabuda, Potgieter & Alberts, 2008:20; Croxon & Maginnis, 2009:238; Klein-Collins, 2011:3; Awuah-Peasah, Sarfo & Asamoah, 2013:24).

Several studies have indicated that the nursing students are unhappy about their negative experiences of the current clinical learning environment (Bourgeois, Drayton & Brown, 2011:114; Henriksen, Normann & Skaalvik, 2012:1). Hence, Parker and Smith (2012:2) argue that the clinical learning environment have become the source of stress and disillusionment to the nursing students. Consequently, this has a negative impact on their clinical learning experiences and outcomes.

The aim of this study was to assess the nursing students and the hospital registered nurses’ perceptions with regard to clinical learning environment. Furthermore, the study sought to determine the preferred form of clinical learning environments. Subsequent to that, the study sought to develop a model to promote positive clinical learning environments. The researcher hoped that such a model would improve students’ clinical learning outcomes.

1.2. BACKGROUND AND RATIONALE OF THE STUDY
Clinical education is the key component of nursing education. The nursing profession by its nature is practice-based. Hence, it is mandatory for the nursing students to be exposed to clinical practice settings so that they can develop clinical skills and competencies (SANC, 1994:21). The clinical practice setting plays a crucial role in socialising the nursing students to the nursing profession (Flott & Linden, 2015:502). The significant role played by the clinical learning environment in providing the nursing students and other health care sciences students with clinical competencies cannot be overlooked and overemphasised (Bourgeois, et al., 2011:114). The researcher opines that if the clinical learning environment is used properly and effectively, it has the potential to turn a novice-nursing student into a clinically competent and independent registered nurse. For this to be realised, Flott and Linden (2015:502) pointed out that the clinical learning environment should be positive in order to provide meaningful learning opportunities for the nursing students.

Issues surrounding the nursing students’ learning conditions within the clinical learning environment, have been a subject of interest to many researchers for the past three decades. A plethora of research studies in different countries evaluated the nursing students’ perceptions of clinical learning environment both qualitatively and quantitatively to understand the quality of clinical teaching and learning in place (Chan, 2002:70; Croxon & Maginnis, 2009:238; Papastavrou, Lambrinou, Tsangari, Saarikoski & Leino-kilpi, 2010:177; Kapucu & Bulut, 2011:1152; Rahmani, Zamanzadeh, Abdullah-zadeh, Lotfi, Bani & Hassanpour, 2011:1; Brynildsen, Bjork, Berntsen & Hestetun, 2014:724; Wawire, Rogers, Claudio, Mwiti, Ndungu, Katindi & Njeri, 2014:26).

The conclusions drawn from the findings of these studies highlighted the difference in quality of clinical learning environment experienced by different countries. An important discovery emanating from these findings was that the difference in quality of clinical learning environment is influenced by many factors such as, organisational structures, physical environment, resources and interpersonal relationships within. What stands out though is that the clinical learning environment has the power to
influence and determine the quality of graduates produced by the nursing education institutions (NEI) (Nash, 2007:70).

According to Darcy associates (2009:20), students are part of the clinical learning environment. As such, they are better suited to contribute and offer an insight on the quality of the clinical learning environment in place. This is so because they come to the clinical learning environment as the beneficiaries and their perceptions of the clinical learning environment are honest and objective. Therefore, their satisfaction with the clinical learning environment can help the health care institutions' policy makers to improve their quality by creating positive clinical learning environment.

In South Africa, several studies have also highlighted similar challenges of clinical learning environment that are hostile and not conducive for learning (Mabuda et al. 2008; Oosthuizen, 2012). Despite these challenges, majority of studies conducted locally (Lekhuleni, Van der Wal, Dirk & Ehlers, 2004:13; Mabuda et al. 2008:25; Oosthuizen, 2012:60; Rikhotso, Williams & De Wet, 2014:3 ) concentrated on the perceptions and experiences of student nurses with regard to clinical accompaniment, with little attention paid to developing models that would promote positive clinical learning environment within nursing education. In order for the nursing students to be trained into independent reflective practitioners, challenges surrounding clinical learning environment in South Africa need to be addressed (The National Strategic Plan for Nursing Education, Training & Practice, 2012:21). According to Nash (2007:1), the ability of new graduates to fulfil their clinical role is mainly determined by the quality of clinical experiences they encountered during their training.

The South African Nursing Council (SANC) is the regulating body of the nursing education and training in South Africa. SANC is also responsible for the maintenance of public and patients’ safety. It is therefore understandable for SANC to expect the nurse education programmes to yield graduates who are critical thinkers; possess good problem solving and analytic skills, as well as being reflective practitioners. More importantly, the type of a nursing graduate envisaged by SANC must be able
to execute her/his tasks effectively within the multidisciplinary team (SANC, Nursing Education and Training standards: 2013:2). To that effect, the SANC has set out minimum requirements with regard to allocation of the nursing students in the clinical practice, as well as the required number of hours (4000) they must complete before they can graduate as registered nurses (SANC, 1994:21).

1.2.1. Clinical learning environment (CLE)

According to Chan (2002:69), clinical learning environment is “the interactive network of forces within the clinical setting that influences students’ learning outcomes”. The clinical setting may refer to a hospital ward, clinic, skills or simulation laboratory and nursing homes. Among all these, the hospital ward as learning environment setting has been the one that is central to many studies investigating clinical learning environment (Chan, 2002:69; Zakaria & Gheith, 2015:35). The ‘interactive network of forces’ constituting clinical learning environment include elements of structure, organisation, staff attitudes, and teaching and learning (Flott & Linden, 2015:502).

The benefits of clinical learning environment notwithstanding the development of clinical skills, and the integration of theory into practice, are enormous. According to Croxon and Maginnis (2009:237) and Gaberson and Oermann (2010:9), clinical learning environment socialises the nursing students into the norms, culture and politics of the nursing profession. Furthermore, clinical learning environments provides the nursing students with the platform to experience real nursing on real patients in real work environment (Henriksen et al., 2012:1).

According to Flott and Linden (2015:503), clinical learning environment has the potential to influence the nursing students’ learning outcomes positively or negatively. However, this depends on the nature of the ‘internetwork of forces’. Furthermore, clinical learning environment have a direct influence on the nursing students’ decision to remain in the nursing profession after graduating or to abandon it (Awuah-Peasah et al., 2013:24). The ability of new graduates to fulfil their clinical role is determined by the quality of clinical learning experiences they encountered during their training (Parker & Smith, 2012:1). On the other hand, the quality of
clinical learning is subject to the nature of the clinical learning environment in which it takes place, be it positive or negative (Nash, 2007:5).

Majority of the studies on clinical learning environment have shown that the nursing students learn better in an environment that is supportive and accommodating (Mabuda et al., 2008:25; Croxon & Maginnis, 2009:237; Papastavrou et al., 2010:177; Awuah-Peasah et al., 2013:23). Similarly, D’Souza, Venkatesaperumal, Radhakrishnan and Balachandran (2013:26) note that nursing students learn poorly and feel vulnerable in an environment that is unpredictable, unstructured and overwhelming. Moreover, issues such as shortage of staff, lack of preceptors and mentors, increased workload, hostility of staff towards nursing students, and poor teaching skills, all contribute to a negative clinical learning environment (Nursing Times, 2013:19).

According to Awuah-Peasah et al. (2013:24) and Papastavrou et al. (2010:177), elements of clinical learning environment contributing to nursing students’ positive learning outcomes are a safe and pleasant atmosphere; co-operative staff and patients; good interpersonal relationship; mutual respect and trust among staff, facilitators and students; good leadership style, as well as the approachability of the unit manager. As a means of retaining the baccalaureate nursing students in the profession, Henderson, Briggs, Schoonbeek, and Paterson (2011:2) suggest that universities and health care service providers should work together and come up with models or strategies that would promote positive clinical learning environment. More importantly, a positive clinical learning environment increases the nursing students’ self-esteem and decreases their anxiety levels (Paker & Smith, 2012:1).

1.2.2. The undergraduate nursing programme at the selected NEI
The undergraduate nursing programme in South Africa is offered over a period of four years. All the nursing education institutions offering this programme follow a basic curriculum established by the SANC (SANC Regulations 425, February 1985, as amended). The basic curriculum comprises a theoretical and practical
component. At the end of the undergraduate nursing degree, the nursing student should have covered the following subjects in the theoretical component: Ethos and Professional Practice; the Fundamental Nursing Science; General Nursing Science (medical and surgical); Psychiatric Nursing Science; Community Nursing Science; Midwifery; Biological Sciences comprising of anatomy, physiology; chemistry; biophysics; microbiology and parasitology; nutrition; pharmacology and social sciences (SANC Regulations 425, February 1985, as amended).

With regard to the clinical component, SANC requires the nursing students to be placed in clinical settings for the duration of the course. The aim is for the nursing students to acquire competencies in psychomotor and critical thinking skills. The nursing students at the selected NEI should to be in clinical practice while still in training. The Nursing Science Department of the selected NEI enrolls approximately 100 new nurses every year. The nursing students are in different health care facilities or clinical settings throughout their training (SANC Regulations 425, February 1985, as amended). For example, health care facility can be a clinic; different hospital wards or hospital sections, e.g. maternity section, psychiatric section, etc. The clinical placement takes place after they exposure to the selected NEI Skill Laboratory. The purpose of the exposure to the skills laboratory is to introduce them to the skills they will encounter and have to master while in clinical setting.

The clinical practice for the nursing students at the selected NEI is in block system from third to fourth year, with each block lasting three to four weeks. First year students are only eligible to go to clinical practice after a period of three months in the programme. They go to clinical practice for a maximum of three hours per day, three times per week. This happens between theoretical classes. The second years are in the clinical practice every Friday for a 12-hour shift for the whole year, except during examination period. At the end of the whole four-year course, the nursing student is required to have covered 4000 practical (notional) hours. The student completes a maximum of 1000 hours per year, per level of study across a range of different practice specialities such as: medical; surgical; paediatrics; Out-patient department (OPD); community, psychiatry; midwifery; emergency department (ED);
intensive care unit (ICU) and high care areas (SANC Regulations 425, February 1985, as amended).

The clinical lecturers employed at the selected NEI and the registered nurses (R/N) in the clinical practice mainly do the nursing students’ clinical accompaniment in the clinical setting. The selected NEI clinical lecturers are responsible for facilitation of the clinical component and liaise with the clinical facilities' registered nurses. The concepts of clinical lecturer and clinical facilitator are used interchangeably. For the purpose of this study, the term clinical facilitator is used. According to the SA Nursing Education Stakeholders group (2012:5), constituted by the College Principals and Academic Staff (CPAS), Democratic Nursing organisation of South Africa (DENOSA), Forum for University Nursing Deans in South Africa (FUNDISA); Nursing Education Association (NEA), Nurse Managers, Private Health Education Providers of South Africa (PHEPSA), and SANC, clinical accompaniment should be provided by the NEI. However, owing to the work force constraints, this is not always the case. The nursing students are most of the time under the care of the R/Ns who are also short-staffed. The clinical facilitators end up doing ‘head count’, instead of providing the nursing students with effective clinical accompaniment required.

During data collection, there were only six clinical facilitators responsible for the accompaniment of approximately 380 nursing students of all levels. One clinical facilitator manned first and second year nursing students respectively. The other four remaining clinical facilitators were responsible for the third and fourth year nursing students across different practice specialities. One clinical facilitator was responsible for third and fourth year general nursing practice; one for community nursing 1 and 2; one for psychiatry 1 and 2, and one for midwifery 1 and 2. It is recommended that a ratio of nursing students should be 15-20 to one clinical facilitator, covering at least four sessions of 30 minutes per student per month (Nursing Education Stakeholders Group, 2012:5). However, this was not always possible. As a result, the nursing students’ clinical accompaniment was compromised. Kaphagawani and Useh (2013:181) contend that the quality of clinical education is subject to the quality of clinical learning that the students receive in the clinical practice.
1.3. PROBLEM STATEMENT

There is a growing concern among the nursing communities, internationally and nationally, about the negativity of the CLE available to the nursing students (Mabuda et al., 2008:20; Croxon & Maginnis, 2009:238; Bourgeois et al., 2011:114; Dale, Leland & Dale, 2013:1; Tsuruwaka, 2015:17). According to Papastavrou et al. (2010:177), tertiary institutions offering baccalaureate nursing education worldwide are faced with the declining clinical education as a result of unconducive clinical learning environment. Parker and Smith (2012:2) posit that the nursing students perceive the clinical learning environment as anxiety-and stress inducing. The reason for such perceptions are based on the uncivil and hostile behaviour from the clinical staff towards them when in clinical practice. In addition, the nursing students have reported being delegated repetitive basic care, of which they acknowledged as part of nursing responsibilities, but indicated that they allowed them little opportunity to observe more complex skills (Croxon & Maginnis, 2009:237).

As a clinical facilitator at the selected NEI, the researcher concurs with the above based on her anecdotal evidence. During clinical accompaniment in the clinical area, the researcher on numerous occasions observed some of the concerns alluded to. The selected NEI nursing students raised similar complaints to the researcher with regard to the challenges they encounter while in the clinical practice. Some of the complaints were with regard to poor delegation and negative staff attitudes. The nursing students complained to the researcher that they were not delegated tasks according to their clinical learning objectives or level of training. Instead, they performed non-nursing duties and expected to be messengers owing to shortage of staff. For example, some said they were asked to collect patients’ valuables from the kit-room or medications from the pharmacy, to accompany patients when going for diagnostic procedures like X-ray, delegated to do basic procedures such as bed baths and monitoring of vital signs, despite being in level 3 or 4.

Previous research has shown that the nursing students do not have a problem with performing these tasks. However, they have indicated that they would prefer to be given a chance to meet their learning objectives, especially considering their limited
clinical time exposure (Croxon & Maginnis, 2009:237). The clinical learning environment in essence must provide the nursing students with meaningful learning experiences. These will see them maturing into knowledgeable and competent professional nurses who are able to provide safe patient care (Flott & Linden, 2015:502).

The researcher opines that if the clinical learning environment carry on as poorly as they are at present, they might have a rippling effect on the nursing students’ future prospects as R/Ns. As such, it was crucially important that nurse educators and hospital policy makers of the institutions where the study was conducted be made aware of the quality of the current clinical learning environment. This can be achieved by assessing the perceptions of the nursing students and the R/Ns with regard to the clinical learning environment. The information gathered was used to develop the model to promote positive clinical learning environment. It was envisaged that subsequent to that, improved nursing students' learning outcomes and patients' outcomes could be attained. Based on the above stated problem statement, the core question asked was: How can the current clinical learning environment be improved? The following research questions emanated from the core questions:

1.4. RESEARCH QUESTIONS

- What are the perceptions of the nursing students with regard to the clinical learning environments at the hospital?
- What are the views of the nursing students with regard to the preferred clinical learning environments at the hospital?
- What are the perceptions of hospital R/Ns with regard to the clinical learning environments at the hospital?
- What are the views of hospital R/Ns with regard to preferred clinical learning environments at the hospital?
- What model should be developed to promote positive clinical learning environments at the hospital?
• How can a model to promote positive clinical learning environment at the hospital be evaluated?

1.5. RESEARCH PURPOSE
The purpose of this study was to develop and describe a model to promote a positive clinical learning environment for the nursing students at a tertiary institution in Gauteng, SA.

1.6. RESEARCH OBJECTIVES
The objectives of this study are:
• To assess and describe the perceptions of the nursing students with regard to the clinical learning environments at the hospital.
• To determine the views of the nursing students with regard to the preferred clinical learning environments at the hospital.
• To assess and describe the perceptions of hospital R/Ns with regard to the clinical learning environments at the hospital.
• To determine the views of the hospital R/Ns with regard to the preferred clinical learning environments at the hospital.
• To develop a model to promote positive clinical learning environments at the hospital.
• To evaluate the model to promote positive clinical learning environments at the hospital.

1.7. FRAME OF REFERENCE
The frame of reference of the study is in terms of the paradigmatic perspective and clarification of key concepts.

1.7.1. PARADIGMATIC PERSPECTIVES
According to Butts (2011:90), paradigmatic perspectives denote assumptions guiding the research with regard to social interactions in the world. The term paradigm and
meta-theoretical perspectives are used interchangeably to indicate the focus of the research and the problems to be solved. Paradigms are important and useful components of any research since they guide the researcher on which research questions to ask and the methodology to follow when conducting a research study (Meleis 2012:186). Different paradigms are governed by set of assumptions which according to Meleis (2012:186) can be considered as ‘givens’ since they are not subject to testing. The assumptions represent the values, beliefs and viewpoint of those paradigms about the basic entities in the world, and how these entities interact, as well as how they should be tested when being studied.

It is a fact that a research that is free from the influence of the researcher’s values and beliefs is quite impossible to achieve. However, Meleis (2012:186) points out that for the developed theory should be taken seriously, its underpinning assumptions should nonetheless be explicitly stated. The assumptions guiding this study are in relation to the world of nursing students and how they perceive their social interactions within this world; the clinical learning environment. An overview of the assumptions underlying this study in terms of meta-theoretical, theoretical and methodological, are next discussed. The assumptions guiding this study are discussed in detail in Chapter 6, Section 6.3.3.2.

1.7.1.1. Meta-theoretical assumptions
The term meta-theoretical assumption is an abstraction of a discipline, and is composed of concepts that represent the viewpoint of that particular discipline towards the world (Butts, 2011:3). According to Butts (2011:3), the meta-theoretical concepts accepted by many nursing scholars as central to the nursing discipline are the following: persons; environment; health; and nursing. The meta-theoretical assumptions that influenced the researcher’s paradigmatic perspective during the conceptualisation and theorisation about the model for promotion of positive clinical learning environment are stated. The researcher’s assumptions focus on two of the four meta-theoretical concepts, namely: the person and the environment.
• View of a person
Meehan (2012:2098) philosophises a ‘person’ as a “unique being who is in the midst of becoming and whose wholeness is made manifest in thoughts, feelings and behaviours”. The researcher’s view of a person herein refers to the nursing student as the focus of this study. The nursing student is viewed as a unique ‘being’ composed of a body, mind and spirit. The body consists of the physical, anatomical and physiological processes that have needs.

The nursing student (person) is in the midst of developing his/her wholeness into ‘being’, working towards becoming independent and a competent professional nurse at the end his/her training. In pursuit of that, the nursing student is exposed to the challenging nature of the clinical learning environment whereby they interact and form relationships with others (clinical staff, multidisciplinary team and patients). In the process, they develop their own identity as unique ‘beings’.

Based on the above, the researcher’s meta-theoretical assumptions about the nursing student as a ‘person’ is that the nursing student is an autonomous ‘being’ with mental and physical characteristics that need to be acknowledged and his/her opinions respected. The researcher also believes that a nursing student is an individual with a mind and spirit, and needs that are supported emotionally in order to enhance his/her self-esteem and confidence.

• View of an environment
Roy (2009:12) views the ‘environment’ as any context that has an influence or is influenced by a designated client. The ‘environment’ can also refer to the conditions and circumstances in a surrounding, and their influences on the development of persons (Roy, 2009:12). The researcher’s view of the ‘environment’, that is, the clinical learning environment in this study, relates to all the conditions and
circumstances constituting the physical and psychosocial entities in the clinical setting influencing the person’s (nursing student) learning.

1.7.1.2. Theoretical assumptions

Theoretical assumptions are the researcher’s values and beliefs about the concepts of the phenomenon being studied, that is, the clinical learning environment and the nursing students in the context of this study. The theoretical assumptions also include the interrelations among concepts, how they interact, as well as giving a direction. In this study, the researchers’ theoretical assumptions are in relation to the nature of the clinical learning environment; the interactions of nursing students with the clinical learning environment, as well as how the clinical learning environments’ influence on the professional development of the nursing students is viewed. The researchers’ theoretical assumptions emanated from the three theories incorporated to form the theoretical framework guiding the direction of this study. The three theories are: 1). Donabedian’s Theory of Quality of Health Care Services based on the ‘Structure, Process and Outcome’ (Donabedian, 2005:691), 2). Benner’s theory of skills acquisition of ‘From Novice to Expert’ for learning in clinical practice (Gentile, 2012:101), as well as, 3). Dickoff, James and Wiedenback’s (1968:422) survey list from the situation-producing theory.

The relevance of the Donabedian’s theory is in relation to quality improvement of the health care services. In this study, quality improvement of the clinical learning environment depends on the development of the model to promote positive clinical learning environment. On the other hand, the relevance of Benner’s theory of skill acquisition in clinical practice is in relation to the developmental stages that a novice nurse (first year nursing student) entering the profession goes through until they become an expert nurse (clinically skilled and competent nurse graduate). The Dickoff et al.’s survey list enabled the researcher to classify the identified concepts according to the clinical learning environments’ concepts. A detailed discussion of the theoretical framework based on these three theories is in Chapter 6, Section 6.2 of this study.

1.7.2. CLARIFICATION OF KEY CONCEPTS
For the sake of maintaining consistency throughout this dissertation, the definitions of key concepts central to this study follows:

- **Clinical learning environments (CLE)**
  Papastavrou et al. (2010:176) define CLE as a complex social entity influencing students' learning outcomes in the clinical settings.

In this study, the concept clinical learning environment referred to the hospital's wards: medical and surgical; adult and paediatric wards, operating theatre (OT), outpatient departments (OPD), intensive care unit (ICU), maternity and accident and emergency (A&E) unit. The definition also includes the conditions affecting the nursing students' learning experiences and outcomes within these units. For the purpose of this study, the academic hospital was referred to as the hospital throughout the dissertation, and the University offering the baccalaureate degree to the nursing students in this study, as the selected NEI.

- **Clinical placement**
  Clinical placement is the period that the learner spent in clinical and other experiential learning sites for achieving programme objectives (SANC, 2013:2).
  In this study, clinical placement meant a period spent by the nursing students at the hospital wards in order to achieve objectives set out in their study programme during this study period.

- **Clinical learning opportunities**
  Clinical learning opportunities are a range of work-integrated and service learning experiences found in a healthcare setting or any other experiential learning sites with a purpose of affording a learner an opportunity of gaining the required skills (SANC, 2013:2).

The concept of clinical learning opportunities in this study refers to a range of work-based skills and experiential learning opportunities found at the hospital wards, with the purpose of enabling the nursing students at the selected NEI to acquire clinical competencies as determined in their curriculum.
• **Baccalaureate nursing student**
The baccalaureate nursing student is a person who follows a four-year comprehensive degree course leading to registration as a nurse (general, psychiatry and community) and midwife (SANC, 1985 as amended).

In this study, the baccalaureate nursing student refers to the second to fourth year students, doing an undergraduate nursing degree at the selected NEI during the study period. The definition includes students who are doing either semester or year modules courses of the baccalaureate nursing degree. For the purpose of this study, the baccalaureate nursing student is referred to as a nursing student. Where it was necessary to make a point, the term baccalaureate nursing student was used.

• **Tertiary/academic**
The concept of tertiary was used interchangeably with that of academic in this study. According to McIntosh (2013:1621), tertiary refers to education in colleges and universities.

Tertiary institution in this context referred to the selected NEI offering the baccalaureate nursing degree in Gauteng, South Africa.

• **Positive clinical learning environment (CLE)**
A positive clinical learning environment is described by Lawrence (2014:270) as an environment that is welcoming, students are orientated and valued, has a valued culture of learning, is emotionally and physically safe, and has clarity of objectives, high quality clinical education staff, as well as appropriate learning opportunities. In this study, this definition is adopted.

• **Registered nurse**
A registered nurse is a person registered as a nurse with SANC under section 16 of the Nursing Act 33 of 2005. A registered nurse in this study refers to a nurse registered under section 16 of Nursing Act 33 of 2005 and was practicing as such at the hospital during the period of study.
• Model
According to Fawcett (2005b) cited by Butts (2011:92), a model is a structure that connects abstract and general concepts that address the unified whole of a larger reality of a phenomenon of interest central to a discipline. A model is a symbolic representation of empiric experience. This depicted by the use of several means: words; pictorial; diagram, physical material or mathematic codes (Chinn & Kramer, 2011:252).

A model in this study refers to the model to promote positive clinical learning environment in a tertiary institution.

1.8. RESEARCH METHODOLOGY AND METHODS
Research methodology refers to the major research types or designs of the research chosen by the researcher to answer the research question (Gray, Grove & Sutherland, 2017:682).

1.8.1. Research design
A theory generating, exploratory and descriptive research design utilising a mixed model research approach which is applied. The mixed model research used herein entailed the within-stage mixing of quantitative and qualitative approaches, with the quantitative approach having a dominant status. The combination of quantitative and qualitative designs to study the same phenomenon called triangulation (Yeasmin & Rahman, 2012:154). A more detailed discussion of the research design followed in this study is in Chapter 3, Section 3.3. A brief overview of each component follows.

• Theory generation
The premise on which this study is based on is to generate a theory through the development of the model to promote positive clinical learning environment. Chinn and Kramer (2011:155) describe a theory as “a creative and rigorous structuring of ideas that projects a tentative, purposeful, and systematic view of phenomena”, and
theory structuring as the linking of concepts in a systematic way (Chinn & Kramer, 2011:175).

The development of the model to promote positive learning environments followed all the steps of theory generation as suggested by Chinn and Kramer (2011:16), namely, identification and definition of concepts; identification of assumptions; clarification of the context, as well as structuring of the relationship statements during the development of the model. The process of model development is in detail in Chapter 6, Section 6.2.

- **Quantitative**
  According to Gray et al. (2017:193), quantitative research is an approach that employs objective, rigorous and systematic methods for investigating a phenomenon of interest in order to generate knowledge numerically. The perceptions from the nursing students and the hospital registered nurses assessed by means of a CLE assessment questionnaire, calculated and quantified numerically. The findings were reported using inferential statistics.

- **Qualitative**
  Gray et al. (2017:689) define a qualitative research as a scholarly and rigorous approach in which the life experiences, cultures and social processes from the perspectives of the people involved. The researcher used qualitative research in this study to explore the views of both study respondents with regard to the aspects of the ward that hindered and promoted students’ learning within the clinical learning environments. The respondents’ views with regard to their preferred clinical learning environment were explored. Qualitative data was gathered by means of three structured open-ended questions. Qualitative data enabled the researcher to get a clear reflection and more insight about the nature of the current clinical learning environment from the respondents’ own voices.

- **Exploratory**
  An exploratory research is used to investigate the full nature of the phenomenon by looking at different dimensions; the manner in which it manifest, as well as factors associated with it (Polit & Beck, 2012:17). The use of exploratory research in this
study assisted the researcher to explore and gain more insight into models that can promote positive clinical learning environment for the nursing students in South African tertiary institutions, since limited information was found in that regard. The views of the respondents with regard to the preferred aspects of clinical learning environment were explored qualitatively through open ended-questions.

- **Descriptive**
  A descriptive research provides an accurate account of events and information surrounding the prevalence and frequencies of variables in the collected data (Gray et al., 2017:676). The descriptive research in this study enabled the researcher to describe accurately the findings from the perceptions of both the nursing students and the hospital registered nurses by means of descriptive statistics.

- **Contextual**
  The context in this study pertains to the clinical learning environments that the nursing students were exposed to in pursuit of clinical skills and competencies. In this instance, the clinical learning environment involves the hospital where the study was conducted and the selected NEI nursing department.

The research design is discussed in detail in Chapter 3, Section 3.3.

**1.8.2. Research methods**
Research involves the steps and procedures of gathering and analysing data with regard to the setting, subject selection, as well as the steps taken to minimise errors foreseen as threats to the study findings (Gray et al., 2017:676). A detailed discussion on research methods is contained in Chapter 3, Section 3.4. An overview of research methods follows:

**1.8.2.1. Population and sample**
Target population represents all the elements qualifying for the inclusion criteria that the researcher is interested in and again to which the study’s findings can be generalised (Gray et al., 2017:694). This study’s target population comprised all
second, third and fourth year nursing students at the selected NEI, as well as all the hospital’s registered nurses working in medical and surgical wards; adult and paediatric, OPDs, Operating theatre, A&E unit, maternity, and ICU.

1.8.2.2. Sampling
Sampling refers to the process of selecting the sample that is representative of the target population for generalisation of results (Gray et al., 2017:691). A convenience sampling approach was employed to select samples from both the nursing students and the hospital registered nurses from both institutions respectively. To be included in the study, the respondents had to satisfy the legibility criteria tabulated in Table 3.2 of Chapter 3.

1.8.2.3. Study setting
The research was carried out at the Hospital’s medical and surgical wards of adults and paediatrics; different OPDs; Operating theatre; emergency department, and ICU. The selected NEI nursing science department’s simulation laboratory was also included as a study setting, since it is where the nursing students are provided with psychomotor skills in order to prepare them before they go for clinical placement at the hospital. SANC requires the students to be appropriately distributed in those wards during their clinical practice in order for them to acquire skills in general nursing science (SANC, 1985:21). The simulation laboratory is also considered by SANC as a clinical setting.

According to Cremonini, Ferri, Artioli, Sarli, Piccioni and Rubbi (2015:195) the simulation laboratory can be used effectively by the NEIs to bridge the theory-practice gap under non-threatening conditions unlike the clinical practice.

1.8.2.4. Data collection
Data were collected after the Sefako Makgatho Health Science University Research committee (SMUREC) (Annexure A) granted ethical clearance and the hospital authorities of where the study was conducted (Annexure B1 & B2). Data were collected from both the nursing students and the hospital registered nurses by
means of self-administered structured questionnaire, having both quantitative and qualitative questions, divided into subsection. The structured questionnaire comprised close-ended questions in section B and three structured open-ended questions in section C. The questionnaire for both the nursing students and the hospital registered nurses were identical in outlook, differing only with regard to the number of items. A detailed data collection is presented in Chapter 3, Section 3.4.5.

1.8.2.5. Data analysis
Data analysis of both the quantitative and qualitative data for both groups of respondents was done simultaneously. Quantitative data was analysed by means of IBM SPSS statistics 22 and the qualitative data was analysed thematically (see Chapter 3, Section 3.4.6).

1.8.2.6. Rigour
It is important that quality of a research project is evaluated and ensured, especially if the findings are to be used for practice improvement and incorporated into care delivery (Noble & Smith, 2015:34). A research is said to be rigorous if the appropriate research tools are appropriately applied to meet the stated objectives. Different research approaches employ different strategies to ensure research rigour. The strategies employed to ensure rigour of this study is detailed in Chapter 3, Section 3.5. The research design and methods are summarised in Table 1.2:

<table>
<thead>
<tr>
<th>RESEARCH DESIGN</th>
<th>SAMPLING PLAN</th>
<th>DATA COLLECTION</th>
<th>DATA ANALYSIS</th>
<th>RIGOUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory generating Mixed model research (quantitative)</td>
<td>Target Population 2\textsuperscript{nd} to 4\textsuperscript{th} year BCUR nursing students Hospital R/Ns</td>
<td>CLE assessment questionnaire</td>
<td>Quantitative data IBM SPSS statistics 22 Descriptive and inferential</td>
<td>Quantitative Validity and reliability Face validity Content Qualitative</td>
</tr>
<tr>
<td></td>
<td>Sample size</td>
<td>Closed-ended questions (quantitative)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1.1: Summary of the research design and methods
### 1.9. PHASES OF THE STUDY

This study was conducted in three phases to work systematically towards the attainment of the study purpose. The phases followed in developing the model to promote positive clinical learning environment, as well as the reasoning strategies followed herein are depicted in Figure 1.2. Outlined below is a brief description of the different phases of this study. A detailed discussion on the phases followed in this study is contained in Chapter 3, Section 3.4.

- **Phase 1**
  The objectives of phase 1 were designed in manner that enabled the researcher to identify main and central concepts related to clinical learning environment through literature review and from the analysed data.

- **Phase 2**
  Objective 5 was informed by the findings from the data collected in phase 1, as well as literature review. Objective 5 sought to develop a model to promote positive clinical learning environment at the selected NEI for the nursing students.

- **Phase 3**
  Objective 6 entails evaluation of the model. The model to promote positive clinical learning environments was first evaluated by the researcher using the critical reflection process suggested by Chinn and Kramer (2011:197). The model was then presented to the experts in model development and the subject lecturers to get an objective evaluation. The reviewers evaluated the model using a model evaluation tool (Annexure G) designed by the researcher based on the criteria suggested by Chinn and Kramer (2011:197). The developed model was subsequently refined.
following the evaluators’ recommendations. The phases of the study are illustrated in Figure 1.1.

Figure 1.1: Study phases

1.10. ETHICAL CONSIDERATIONS

This study was commenced after institutional approval to conduct the study was granted by the Research Ethics Committee and HOD of Nursing Department of the Sefako Makgatho Health Care Sciences University’s, and the hospital management. According to Polit and Beck (2010:88), human beings should be treated as autonomous agents capable of taking their own decisions. Since no treatment was administered to the participants, there was no potential harm anticipated. Therefore, the only principles applying to this study were the issues pertaining to informed consent and measures to ensure confidentiality and anonymity, which were covered in the respondents’ information letter. Over and above this, the respondents were allowed to participate voluntarily and assured of their right to privacy. Ethical considerations applicable to this study are discussed in length in Chapter 4, Section 4.7.

1.11. LAYOUT OF THE RESEARCH STUDY
The layout of this research study with regard to the organisation of the study chapters is illustrated in Figure 1.2.

![Schematic presentation of the layout of the study](image)

**Figure 1.2: Schematic presentation of the layout of the study**

1.12. CONCLUSION

Chapter 1 presented the overview of this study. This chapter outlined the background and rationale, problem statement, research purpose and objectives, as well as the research methodology and methods employed in this study. The paradigmatic perspectives that have influenced the direction of this study was briefly commented on. Literature review follows in Chapter 2.
CHAPTER 2
LITERATURE REVIEW

2.1. INTRODUCTION

In this chapter, a discussion on the literature review pertaining to aspects of clinical learning environment is given. Factors contributing and impacting on the overall nursing students’ clinical learning experiences were also reviewed and are discussed. The literature review begins by giving background information on the
transformation in nursing education and the challenges facing it. The impact of this transformation on the undergraduate nursing degree clinical nursing education nationally and internationally, is discussed next, followed by the discussion on the factors contributing to positive or negative clinical learning environment. Lastly, the literature review looks into the assessment of the clinical learning environment and the different models for the promotion of positive clinical learning environment. Chapter 2 then concludes with a brief summary.

An extensive literature search including recent available literature in the library and internet on clinical learning environment was conducted. The literature search was conducted with the help of the librarian where the study is conducted, using the following key words: clinical nursing education; clinical teaching; clinical practice; clinical placement; clinical facilitation; clinical learning; clinical learning environment; clinical learning experiences and clinical models.

2.2. BACKGROUND ON TRANSFORMATION IN NURSING EDUCATION

The history of nursing education internationally and in South Africa, dates back to 1899 and has evolved greatly since then (Dolamo & Olubiyi, 2011:17). Evolvement within the society demographics and the advances in science and technology affecting the healthcare practice resulted in the transformation in nursing education. According to Nasrin, Sonoor and Soodabeh (2012:1) nursing education is a process by which nursing students acquire knowledge, understanding and skills necessary to practice appropriate and quality nursing care on patients with multiple and complex health needs. Nursing is a practice-based discipline. Therefore, there is division of nursing education into both the theoretical and the clinical component. The former takes place in the classroom and the latter in the clinical practice (Tomietto, Saiani, Palese, Cunico, Cicolini, Watson & Saarikoski, 2012:72; Phuma-Ngaiyaye, Bvumbwe & Chipeta, 2017:164).
The dawn of the 19th century saw the integration of nursing education into tertiary institutions by many countries such as, Australia, United Kingdom (UK), United States of America (USA), and Canada (Elliot & Wall, 2008:581; Papastavrou et al., 2010:177; Blaauw, Ditlopo & Rispel, 2014:1). In South Africa, as reported by Horwitz (2011:6), the move to separate nursing education completely from the National Department of Health and Welfare to be under the control of the Department of Higher Education took place in 1985. According to Wawire et al. (2014:26), majority of the countries are now having undergraduate nursing programmes and Bachelor of Nursing degrees offered by universities.

The rationale for that educational transformation was to produce graduates who were technically advanced in medical and surgical nursing and also competent in cognitive and critical thinking skills. According to Horwitz (2011:7), the then traditional apprenticeship model of training offered by the hospitals prior to that move focused mainly on providing learning through practice-based approach, resulting in ‘nurse doers’ and not in nurses who could ‘do’ and ‘think’ critically when in clinical practice. Elliot and Wall (2008:580) declare that the apprenticeship model of nursing education that was in operation then, lacked educational direction and clear outcomes. Its focus was directed on nursing practice adopting an approach of ‘learning by doing’, rather than by understanding the pathophysiological and theoretical background of the problem, and critically appraising it (Elliot & Wall, 2008:580). As a result, nursing students were not regarded as learners with specific learning needs, but were seen as ‘extra pair’ of hands whose priority was to complete the task at hand, rather than achieving any learning outcomes (Elliot & Wall, 2008:580).

The incorporation of nursing education into tertiary institutions came with both positive and negative repercussions for the nursing profession (Allan, 2010:2). The negative side brought by this transformation was the neglect of clinical teaching component, with the emphasis placed on the theoretical aspect, leading to the ‘theory-practice gap’ (Croxon & Maginnis, 2009:237). As noted by Mannix, Faga, Beale, and Jackson (2006:1), one of the significant turning points in nursing education was the reduction of clinical exposure for nursing students because of this
transformation. Ironically, the very transformation into tertiary institutions that was
designed and envisaged to produce appropriately educated and clinically skilled
registered nurse, resulted in the opposite. Instead, it contributed to the production of
graduates who are not sufficiently competent and adequately prepared for the

The incorporation of nursing education into the universities did not only have
undesired outcomes on nursing students alone, it also affected the faculty nurse
educators and the clinical staff, especially the registered nurses (Elliott & Wall,
2008:581; Allan, 2010:2). Moreover, the nurse educators felt powerless and
disconnected from clinical setting. They also felt disillusioned since the new
dispensation expected them to concentrate more on theory teaching, leaving most of
the clinical teaching to the clinical preceptors (Allan, 2010:2). Similarly, majority of
the hospital clinical staff found themselves being “instant” academics by default
(Elliott & Wall, 2008:581), leaving them with the task of clinical teaching, despite
being capable of teaching or not.

Members of the public were also infuriated by this move and started to accuse the
nurses of being “too posh to wash”. In simple terms, this implies that the nurses were
seeing themselves as too educated to perform basic bedside procedures since they
now belonged into the university setting. The media and members of the public
ended up attributing the decline in the quality of standard of nursing to this
educational move (Allan, 2010:2; de Swart, van Rensberg & Oosthuizen, 2017:2).

Despite all these negatives reports, there were some notable positive aspects as
well associated with the incorporation of nursing education into the universities.
Several studies have indicated that despite the nursing students having been
reported as being clinically incompetent upon graduation, they however adjust
quickly when appropriately supported in clinical practice (Kutney-Lee & Aiken,
2013:1). Their competence levels also increase within three to six months period,
making them ready to carry out their responsibilities within the health care system
The American Association of Colleges of Nursing (2013) postulates that there is a growing evidence based research showing that nurses with Bachelor of Nursing degree are well prepared to practice across a variety of settings. In addition, nursing students are well recognised for their broader scope of practice, critical thinking skills, case management, and health promotion. This assertion is corroborated in a study by Kutney-Lee and Aiken (2013:1) conducted to determine the changes that the baccalaureate nursing education has on the patients’ outcome. The findings of the same researchers’ study showed that there were improvements in surgical patients’ survival rates in hospitals with more baccalaureate prepared nurses. Another interesting finding from the very same study was that the nurses who had initially started their nursing at the baccalaureate level were more likely to study further to acquire a masters’ degree (Kutney-Lee & Aiken, 2013:3).

The conclusion that can be drawn from the findings of this study is that it is advisable and very important for the government to invest more in the training of the nurse working force with baccalaureate degrees. In South Africa, 80% of the registered nurses are trained at colleges and only 20% are trained for the baccalaureate degrees at universities. This is contrary to international trends, which advocate for training of all nurses at degree level (The National Strategic Plan for Nurse Education, Training and Practice, 2012:30)

2.3. THE UNDERGRADUATE SOUTH AFRICAN NURSING EDUCATION

In South Africa, the promulgation of the Higher Education Act No. 101 of 1997 and the South African Qualification Authority (SAQA) Act No. 58 of 1995 spearheaded nursing education to be awarded equal status with other professions belonging in higher education (Mekwa, n.d:277). Currently, nursing education in South Africa consists of several nursing programmes, and are divided into two main categories of pre- and post-registration programmes (Mekwa, n.d.:272). The SANC recognises the two main categories, which is the nurses’ education and training controlling body in South Africa. All the categories of nursing programmes are offered at different institutions of learning, depending on their levels. For example, a comprehensive
four-year Bachelors’ Degree or B. Tech in General Nursing, Psychiatry and Community Health Nursing and Midwifery, in accordance with SANC Regulation No. R425 of 22 February 1985 as amended, and the post registration and post-graduation qualifications respectively, are offered in universities and universities of technologies (Dolamo & Olubiyi, 2011:17). In the same vein, a comprehensive four-year Diploma in General Nursing, Psychiatry and Community Health Nursing and Midwifery, in accordance with SANC Regulation No. R425 of 22 February 1985 as amended, and some of the post-basic courses like, theatre nursing, primary health care nursing, to name a few, are offered in colleges of nursing affiliated to universities. Lower categories of nursing such as, a two-year enrolled nursing and a one year certificate in Enrolled Auxiliary nursing can be accessed in nursing schools and private institutions offering nursing education (Dolamo & Olubiyi, 2011:17; Uys & Klopper, 2013:1).

The nursing profession is regarded as the ‘backbone’ of the health care system of any country. As such, it has a potential to transform the healthcare delivery of any country into a safer, high quality and more cost effective system (Strategy for South Africa, 2008:13; American Association of College of Nursing, 2012:2). In view of that, it is a given that the quality of health care service delivered in any country is largely dependent on the quality of nursing education standards of that country (Ali, Banan & Seraty, 2015:2). Consequently, a poorly trained nurse will lead to poor standard in quality of health care service delivery of that country. Therefore, it is not surprising that the need to change the way health care is delivered within the clinical learning environment, for the purpose to effect change within the broader health care environment, has now become a priority (American Association of College of Nursing, 2012:5).

The clinical environment in which the professional nurse currently practices has become more complex and multicultural, warranting the necessity to equip the nursing students with proper skills that will enable them to deliver a high quality and culturally sensitive care (American Association of College of Nursing, 2012:5; Ali, et al., 2015:2). In addition, Wawire et al. (2014:26) and Mekwa (n.d:277) point out that nursing education should be structured in a way that it responds to the nations’
health needs, and be dictated by the national health policies. This will ensure that nursing education institutions produce nurses who can provide quality patient care based on current health issues and societal health needs.

2.4. CHALLENGES FACING CLINICAL NURSING EDUCATION

The increase in globalisation of health care and the diversity seen in today’s nation’s population also warrants for diversification in the way health care is provided. This is importantly so in order to provide a safe, high quality and multicultural care (American Association of Colleges of Nursing, 2008:7; Zakaria & Gheith, 2015:35). However, issues such as nursing shortages, increased work load, lack of clinical mentors, aging population and poor clinical teaching skills, are some of the challenges that the nursing education nationally and globally are currently faced with, therefore making this mission impossible (The National Advisory Council on Nurse Education and Practice (NACNEP), 2010:5; Nursing Times, 2013:19; Rikhotso et al., 2014:2). All of these issues are not only affecting the health care delivery systems; they have also been found to have detrimental effect on the nursing students’ learning outcomes in clinical practice (Nursing Times, 2013:19).

In a paper, titled: “A profession in peril?”, Rispel and Bruce (2015:118) paint a gloomy picture about the South African nursing education. The same authors warned of a looming crisis in nursing unless issues of clinical learning environment and quality in nursing education, as well as curriculum changes, were given urgent attention. The international nursing community has also raised their concern with regard to the non-conduciveness of the clinical learning environment available to the nursing students (Croxon & Maginnis, 2009:238; Kapucu & Bulut, 2011:1149; Nasrin, et al., 2012:3; Msika, Smith & Fawcett, 2014b:47; Tsuruwaka, 2015:20). In view of these concerns, it is very crucial that efforts are directed at developing models that can promote positive clinical learning environment, therefore addressing the situations (Ali et al., 2015:1).
In South Africa, the non-conducive clinical learning environments and the declining quality of clinical education compelled the Minister of Health, Dr A.Motsoaledi, to summon all nurses from all over the country and other stakeholders to a National Summit in 2011. The call was as a result of the anecdotal evidence and research studies, which according to the National Strategic Plan for Nurse Education, Training and practice (2012:24) revealed that the standard of nursing in SA had dropped drastically. This was said to have affected the image of nursing in a negative light. There is also an increase in the media reports, electronic and print, about the poor state of clinical learning environments in the public sector. It is reported that the clinical learning environments are engulfed with shortcomings of staff shortages, lack of human and material resources and workplace violence. These were said to have affected the service delivery badly, as well as the morale of the nurses (National Strategic Plan for Nurse Education, Training and practice, 2012:24).

The main aim of the Summit was for the nursing community themselves to come up with the turnaround strategies that could promote positive clinical learning environments, thus improving the quality of clinical education. The meeting eventually culminated into the development of The National Strategic Plan for Nurse Education, Training and practice (2012:21), a document outlining the challenges facing nursing education and training in SA, as well as recommendations on how they can be addressed. The recommendations by the chosen Ministerial task team placed the clinical nursing education as a priority, encouraging the nursing education institution to develop models that could promote positive clinical learning environment The National Strategic Plan for Nurse Education, Training and practice (2012:4).

In the USA, The National Advisory Council on Nurse Education and Practice (2010:5), a body that advises the Secretary of the U.S Department of Health and Human Services and the U.S Congress on health and human resource matters; together with the National Strategic Plan for Nurse Education, Training and Practice (2012:22) in South Africa, noted the following challenges as impacting on the current clinical nursing education negatively, consequently affecting the conduciveness of the clinical learning environment.
Nursing shortage

The shortage of nurses is a global crisis, including in South Africa (Joubert, 2009:4; Msiska et al., 2014a:35). This is exacerbated by an increase in the aging and retiring nursing workforce (American Association of Colleges of Nursing, 2012:1). In South Africa, according to Joubert (2009:4) there are only 222 registered nurses for every 100,000 patients, which basically means that for every registered nurse there are 451 patients. In Malawi, the nurse/patient ration is at 38 nurses per 100,000 population (Ministry of Health report, 2012 cited by Msiska et al., 2014a:35). An annual report by NACNEP (2010:5) in the USA showed that the supply for nurses is unable to match the demand that is growing at a fast rate. A 2007 national survey indicated that there were 116,000 registered nurses (R/N) needed in the USA. The report warned further that if the shortage of nurses is not addressed urgently, the demand will rise up to 400,000 R/N in 2020, thus compromising the quality of clinical learning environment further.

In South Africa, the report by the Ministerial Task Team (MTT) mandated by the Minister of health to determine the extent of the shortage of nurses found out that, there was a significant decrease in the proportion of registered nurses in recent years (The National Strategic Plan for Nurse Education, Training and Practice, 2012:30). The report revealed further that from all the new nurses registering, 16% of them comprised registered nurses, and that, there is also an envisaged decline of 37% of registered nurses in 2020. The report warned of this situation worsening, unless the training and retaining of registered nurses were given urgent attention (The National Strategic Plan for Nurse Education, Training and Practice, 2012:30). The report also acknowledged that crisis of nursing shortage does not only affect quality patient care, but it also jeopardises the quality of clinical learning environments, hence the requirement for the promotion of positive working environments. In addition to the shortage of nurses, the report also talked of the shortage and challenges faced by Nurse Educators, such as large workloads, the lack of a structured strategy for nursing educators as examples. These challenges have been found to affect the quality of teaching and clinical accompaniment and
supervision of students and should therefore be addressed by the promotion of clinical learning environments (The National Strategic Plan for Nurse Education, Training and Practice, 2012:30).

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The implications of the abovementioned challenges is that the unavailability of enough mentors to supervise the nursing students in clinical practice, will hamper the effectiveness of the clinical learning environment. The ineffective clinical learning environments will lead to poor quality of health care (Ali et al., 2015:1). A study by Msiska et al. (2014a:38) to explore the students’ perception of their clinical learning experiences, revealed how the students indicated that they were used to cover shortage.

- **Increased workload**

Among the factors impeding the nursing students’ clinical learning in clinical practice, is the increased workload. The literature is abundant with the reports on how increased workload affects the conduciveness of the clinical learning environment (Mabuda et al., 2008:21; Kaphagawani & Useh, 2013:187; Msiska et al., 2014a:36). A study by Msiska et al. (2014a:36) conducted in Malawi to explore the students’ perceptions of their clinical learning experience; in view of the various problems prevalent in clinical practice impacting their clinical learning negatively; revealed that students felt that they were used as extra pair of hands. One participant in that study
said that: “When we are in the wards, there is so much workload and when knocking off at five pm, you end up being very tired because you have worked a lot” (Msiska et al., 2014a:38).

In order for the nursing students to maximise their learning opportunities when in clinical practice, Msiska et al (2014b:41) suggested that they need to be equipped with the skills on how to use the clinical practice to their advantage.

- Lack of clinical mentors

According to Kutney-Lee and Aiken (2013:1), calls are being continuously made and are mounting globally, for the institutions of higher learning to train more highly educated nursing workforce that can deal with the increasing complexity of hospital care. However, there is strong evidence that the nursing students lack positive role models in the form of mentors (Msiska et al., 2014a:39; Baraz, Memarian & Vanaki, 2015:2; Tsuruwaka, 2015:22). Mentoring is defined by Franklin (2013:39) as a process of assigning a more skilled person to assist, guide, coach, and support a less experienced person in acquisition of skills. In a nursing practice, an experienced registered nurse is the one who is usually tasked with the responsibility of providing all the above-mentioned to the less experienced nursing students when in clinical practice.

The findings of a study by Tsuruwaka (2015:22) to investigate the characteristics of ethical problems encountered by Japanese nursing students from the patients’ and students’ perspective, revealed that the attitudes of the nursing staff towards patients’ and their families was appalling. The students in Tsuruwaka’s study indicated that they were disturbed by the lack of respect for patients’ individuality, as well as the manner in which patients were assisted with basic needs. The findings of the above-mentioned study are consistent with the study by Msiska et al. (2014a:39) and Nasrin et al. (2012: 3) whereby the participants in both studies described themselves as ‘lost sheep’, in the sense that there were insufficient mentors to
supervise them. The nursing students mentioned that they were left unsupervised most of the time when in clinical practice, and this made them to learn by trial and error or to loiter around.

Msiska et al. (2014a:39) point out that even though leaving students to work unsupervised is sometimes beneficial in a sense that the students learn to be independent, it should however not to be encouraged since it can lead to adverse incidents and put the patients' lives at risk. Moreover, these negative clinical experiences can have detrimental impact on the nursing students' attitudes, trust and psychological wellbeing (Baraz et al., 2015:1). If issues of unsupervised behaviours are not addressed, they can lead to attrition and cause other nursing students to abscond from the programme (ibid). In view of that, there should be concerted efforts between the nursing faculty and the clinical nursing staff to create positive CLE responsive to students' learning needs (Msiska et al., 2014a:41).

• Lack of resources

The review of literature have revealed that factors such as lack of resources can have negative effect on the nursing students’ learning in the clinical learning environment (Mabuda et al., 2008:20; Misiska et al., 2014a:38; Baraz et al., 2015:5). Lack of human resources such as enough work force and the material resources like equipment, financial constraints, as well as high bed occupancy can frustrate the clinical nursing staff leaving them with no interest and energy to attend to the nursing students' learning needs (Mabuda et al., 2008:20).

The findings in a study by Msiska et al. (2014a:38) revealed that the issues of lack of resources mainly encountered in government hospitals can cause the nursing students to learn the hard way. The undergraduate nursing students in their study indicated that their clinical placement took place mainly in public or government hospitals and as a result, they were forced in most instances to improvise when in clinical practice. One of the participants had this to say about lack of resources:
“Most of the time we are allocated into government hospitals, the materials that are there usually are not enough; they cannot facilitate your learning. Most of the times we are improvising and we do not do the ideal things…so it really affected my learning” (Msiska et al., 2014a:38)

Rispel and Bruce (2015:117) provide an insight into the challenges facing nursing and nursing education in South Africa. The chapter they wrote mentioned issues such as limited resources and weakness in policy capacity as the challenges impacting the nursing practice environment negatively. The chapter pointed out further that the nursing profession in South Africa needs to be revitalised urgently by investing heavily in the nursing students’ training, with emphasis on ethical value system, social accountability, adequate staffing in different health care settings and an enabling clinical learning environment (Rispel & Bruce, 2015:117).

• Poor teaching methods

With all the benefits associated with teaching and learning in the clinical learning environments, several studies have unfortunately shown that the opposite is happening. The clinical learning environments are not providing nursing students with positive learning experiences (Cooper, Walker, Askew, Robinson & McNair, 2011:3; Nasrin et al., 2012:3; Msiska et al., 2014a:38; Baraz et al., 2015:1).

According to Msiska et al. (2014b:47) the key people responsible for students’ teaching in clinical practice and are considered role models are: the registered nurses, lecturers, patients and other qualified members of the health care team. As such, they should use appropriate and acceptable teaching methods that will contribute positively to the nursing students’ learning outcomes. Randle (2003) cited by Cooper et al. (2011:4) came to a conclusion that a nursing student once qualified, will be a mirror of how he or she was trained. What this implies is that the treatment the nursing student gets in the clinical learning environment during the period of their training, will determine the type of the nurse he or she will become once qualified.
A study by Msiska et al. (2014b:47) to expose emotional labour by undergraduate nursing students in Malawi during their clinical learning experience revealed that some lecturers use bullying tactics when in clinical teaching encounters with students. The participants in that study mentioned that the lecturers shouted at them in front of patients and other students and as a result, the patients lost confidence in them and did not trust them anymore. These findings are supported in a study by Kapucu and Bulut (2011:1151) and Labrague (2013:425) whereby the participants in their studies indicated that they would like the clinical nurses to respect them and give them a positive feedback when being evaluated. Poor clinical teaching methods for the undergraduate nursing students can negatively affect their confidence level and predispose them to high level of stress that can in turn affect their physical wellbeing (Labrague, 2013:424).

In that light, clinical teachers are advised to be sensitive to the nursing students’ emotional wellbeing (Labrague, 2013:430). Clinical teachers are advised to use correct clinical teaching strategies and strengthen the students’ coping skills to deal with different sources of stress (Labrague, 2013:430). With appropriate and effective clinical teaching, the nursing students may gain a range of competencies in psychomotor and critical thinking skills from both registered nurses and other health-care professionals in the clinical learning environment. In this way, they will be in a position to provide quality patient care upon qualifying (Wawire et al., 2014:27). In order to address the nursing education crisis, the South African policy makers are advised to invest highly in the creation of enabling or positive clinical learning environments promoting ethical value system (Rispel & Bruce, 2015:117).

2.5. THE BACCALAUREATE NURSING PROGRAMME

Research studies have shown that there is a need for more highly educated nurses who can manage the ever-changing and increasingly complex health care systems (Kutney-Lee & Aiken, 2013:1; American Association of Colleges of Nursing (AANC), 2008:7). As a response to this need, AACN advocated in 2004 for the baccalaureate nursing education to be the minimum level required for entry into professional nursing practice (American Association of Colleges of Nursing, 2008:7). Several studies have since then shown and proven how the nursing workforce with the
baccalaureate nursing degree impacted the patients’ outcomes positively in hospitals (Kutney-Lee & Aiken, 2013:1; Rodriguez, 2013:18; American Associations of Colleges of Nursing, 2015:1). Although it has been an international trend since 1999 for the entry level of the training of all registered nurses to be at the baccalaureate degree, and not a diploma at a nursing college, in South Africa, this proposition was only recommended in 2013 when a new framework for Nursing Qualifications was established (Blaauw et al., 2014:1).

Kutney-Lee and Aiken (2013:1) conducted a study in more than 80% of all acute hospitals in Pennsylvania to determine the impact of the baccalaureate degree nurses on the mortality rates of the surgical patients. The researchers used the 1999 to 2006 data obtained from staff surveys and patients’ discharge data to examine the changes that took place since then. The findings of that study revealed that the increase of baccalaureate degree nurses were associated with the significant decline in surgical mortality rates (Kutney-Lee & Aiken, 2013:2).

According to the American Association of Colleges of Nurses (2008:7), the baccalaureate generalist nurse upon graduation should be able to:

- Practice from a holistic, caring framework.
- Practice from an evidence base.
- Promote safe, quality patient care.
- Use clinical/critical reasoning to address simple to complex situations.
- Assume accountability for one’s own and delegated nursing care.
- Practice in a variety of healthcare settings.
- Care for patients across the health illness continuum.
- Care for patients across the lifespan.
- Care for diverse populations.
- Engage in care of self in order to care for others.
- Engage in continuous professional development.
D’Souza et al. (2013:25) point out that the quality of nursing education is largely determined by the quality of the clinical experiences offered by the curriculum in place.

2.5.1. The baccalaureate nursing programme in South Africa

In South Africa, like many other countries mentioned earlier in the text, the incorporation of the baccalaureate nursing education into tertiary institutions took place in 1985. According to Horwitz (2011:6), there were two main reasons that warranted that incorporation. Reason number one was owing to the increased pressure experienced globally by the nursing fraternity to increase the professional status of nursing by having a baccalaureate nursing in the University (Blaauw et al., 2014:1). The second reason was owing to the pressure from SANC whose task is to regulate nursing education and training in South Africa, as well as maintaining the ultimate responsibility of ensuring public/patients’ safety. As a result, NEI are required to institute nursing education programmes that can yield graduates who “demonstrate development of skills analysis, critical thinking, problem solving, and reflective practice. The envisaged graduate should also be able to act as an effective member of a health care team and participate in the multidisciplinary team approach to the care of patient/client (SANC, Nursing Education and Training Standards, 2013:2). The baccalaureate nursing programme in South Africa is offered over a period of four years. All the nursing education institutions offering this programme follow a basic curriculum established by the SANC, comprising a theoretical and practical component. At the end of baccalaureate nursing degree, the nursing student would have covered the following subjects in the theoretical component:

- Ethos and Professional Practice.
- The Fundamental Nursing Science.
- General Nursing Science.
- Psychiatric Nursing Science.
• Community Nursing Science.
• Midwifery.
• Biological Sciences comprising of anatomy, physiology; chemistry; biophysics; microbiology and parasitology; nutrition; pharmacology; social sciences, medical and surgical nursing (SANC Regulations 425, February 1985, as amended).

SANC requires the nursing students to be placed in the clinical learning environment for the duration of the course in order to meet the clinical component. Placement of the nursing students in the clinical practice will enable them to acquire competencies in psychomotor, as well as critical thinking skills (Zakaria & Gheith, 2015:35). The nursing students are placed in different health care facilities or clinical settings throughout their training so that they can achieve clinical competencies (SANC Regulations 425, February 1985, as amended). For example, health care facility can be a clinic; different hospital wards or hospital sections, such as maternity section or psychiatric section. At the end of the whole four year course, the nursing student would have covered four thousand practical hours (4000), with the student completing a maximum of thousand (1000) hours per year, per level of study (SANC Regulations 425, February 1985, as amended).

2.5.2. Importance of clinical practice in the nursing programme

Clinical education forms a vital component of nursing education and essential part of nursing curricula (Bigdeli, Pakpour, Aalaa, Shekarabi, Sanjari, Haghari & Mehrdad, 2015:2). In South Africa, placement of the nursing students in the clinical practice is mandatory, as nursing is a practice-based profession (SANC, 1994:21). Kaphagawani and Useh (2013:181) posit that the quality of clinical education is subject to the quality of clinical learning that the students receive in the clinical practice. Clinical practice is crucial in nursing education. Clinical practice can be regarded as a direct or indirect nursing service since it prepares the nursing students for professional practice (Elliot & Wall, 2008:581; Zacharia & Gheith, 2015:35). According to Gaberson and Oermann (2010:7), the clinical practice exposes leaners
to encounter real patients, as well as to test the theory learned in classroom and transfer it to practice.

The clinical practice allows the nursing students opportunity to make a connection between theory and practice. Croxon and Maginnis (2009:236) and de Swardt et al. (2017:1) maintain that clinical practice socialises the nursing students into the profession and offers them the platform to practice skills needed for nursing practice. It also socialises them into the culture and politics of the nursing profession, and more importantly, it provides them with an opportunity to practice genuine nursing (Bourgeois, et al., 2011:114; Moagi, van Rensberg & Maritz, 2013:359). According to Gaberson and Oermann (2010:7), the goals of clinical practice are as follows:

- Authenticating students’ knowledge.
- Developing and refining psychomotor skills, as well as affective skills.
- Familiarise students with workplace environment.
- Interpreting theoretical and applied knowledge.
- Develop problem solving and critical thinking skills.
- Develop time management skills.

Clinical practice requires one to think critically, have problem solving skills, possess psychomotor and technological skills, professional value system, teamwork and collaboration skills (Gaberson & Oermann, 2010:7). Clinical practice is characterised by complex, unpredictable and unstable situation. It is for that reason that the nursing students have to be exposed to the clinical practice so that they can develop the above-mentioned skills to prepare them for their future role (Bigdeli et al., 2015:2). In South Africa, SANC requires the nursing students to complete a stipulated number of hours (4000) in the clinical practice before they can graduate as registered nurses. Nursing Times (2013:18) and Emanuel (2013:2) postulate that it is the responsibility of both the higher education institutions and health care facilities to
ensure that the nursing students are prepared in such a way that they are able to cope with the complex nature of the clinical practice. Paramount to the effectiveness of clinical practice is the nature of clinical learning environment in which clinical teaching and learning takes place (Croxon & Maginnis, 2009:236). Despite the crucial role played by the clinical practice, there is however a growing concern among the nursing communities, both internationally and nationally about the non-conduciveness of CLE that the nursing students are exposed to (Mabuda et al., 2008:20; The National Strategic Plan for Nurse Education, Training and Practice, 2012:21; Klein-Collins, 2011:3; Bryniildsen et al., 2014:723; Ali et al., 2015:2).

2.5.3. Challenges encountered by the baccalaureate nursing students in clinical practice

There is an abundance of literature on the challenges faced by the nursing students in the clinical practice (Labrague, 2013:424; Dale, LeLand & Dale, 2013:1; Msiska et al., 2014a:43; Wawire et al., 2014:26; Tsuruwaka, 2015:17). The findings from these studies reveal that nursing students in general experience more stress than other health care sciences students. This is mainly owing to the practice-based nature of the nursing profession (Labrague, 2013:424). According to Wawire et al. (2014:27), the nursing students have been found to be more prone to stress than other categories of nurses owing to the theory-packed nature of their curriculum. The following factors such as dual status (students/workers), clinical placement and academic pressure, among others, are said to be contributing to those challenges.

- Student status

The nursing students in South Africa do not enjoy the supernumerary student status enjoyed by their counterparts in other parts of the world. In South Africa, the different funding models in place affect the student status of the majority of the nursing students. According to the National Strategic Plan for Nurse Education, Training and Practice (2012:22), there are those who get a stipend, are on learnership programme or on study leave, and have to sign contracts with the Department of Health as employees. This arrangement opens them to abuse by the clinical facilities that they
are placed at since they are regarded as extra pair of hands. As a result, the baccalaureate nursing students do not always get the chance to meet their learning objectives. A study by Msiska et al. (2014a:36) conducted in Malawi revealed that the nursing students complained that they are being treated as workers rendered them very tired at the end of their shift, leaving them with no energy to give attention to their studies afterwards.

Kapucu and Bulut (2011:1152) suggest that both the health care facilities and the NEI should work together and ensure that the nursing students are effectively supported and allowed to learn in a positive clinical learning environment that will ensure that they become good and competent future health care practitioners.

- Clinical placement

According to Niederhauser, Schoessler, Gubrud-Howe, Magnussen and Codier (2012:1), the educational method used some years ago to prepare nursing students for clinical practice are still in use even in today’s times. This is despite the significant changes that have occurred in the CLE over the years. An example is the allocation of the pre-registration nursing students in the clinical sites for short periods of time using short-blocks model of allocation (Lawrence, 2014:267). In South Africa, all the other categories of nursing students are allocated in the clinical sites using the same short-block model of allocation, lasting almost one to two months of uninterrupted clinical practice attendance (Rikhotso, et al., 2014:3).

The allocation of nursing students of the NEI where this study was conducted, is different. Due to the structure of the academic calendar, the nursing students face the challenge of attending both the classes and clinical practice concurrently. The first year nursing students are allocated three hours times three days per week, whilst the second years attend one day of 12 hours per week. The third years and the fourth years are the only ones who are allocated using the short-block model. Despite having the short-block allocation model like their counterparts, they still have
to come to attend classes whilst in the clinical practice. This disruptive arrangement, according to Lawrence (2014:267) can compromise the cohesiveness of the nursing team. Over and above that, this arrangement does not grant them enough time for clinical exposure, thus limiting their opportunity to bond with the nursing staff and other members of the health care team. According to Mannix et al. (2006:2) the nursing students are most of the time viewed as visitors since they do not belong to those wards nor the institutions. The impact of all these issues have resulted in the nursing students suffering from what is known as ‘anxious anticipation’, which is a term used to describe their eagerness to perform well and belong in the team (Mannix et al., 2006:5).

Kapucu and Bulut (2011:1152) conducted a study to determine the views of Turkish nursing students towards clinical learning environment. Their findings revealed that unlike other categories of nurses who were on short-block allocation system, the baccalaureate nursing students were discriminated against. They claimed that the negative attitudes by other members of health care team such as doctors did not sit well with them.

Similar findings were found in a study by Msiska et al. (2014a:38), in which the ‘lifeworld’ of learning of the baccalaureate nursing students in a resource poor clinical settings were explored. In that study, the theme of ‘Learning in a hard way’ emerged. Under that theme, the baccalaureate nursing students claimed that some clinical nurses refused openly to teach them. The clinical nurses were said to have told the baccalaureate nursing students that they are pursuing a ‘Bachelor’s degree in Nursing’, as such, the baccalaureate nursing students have to know everything at their level because they are theory nurses. The students ended up not asking questions for fear of getting same reply (Msiska et al., 2014a:38).

Nasrin et al. (2012:1) caution that it is owing to hostile behaviours like these that cause the nursing students to lose interest and motivation to pursue nursing. Several studies have also shown that lack of interest and motivation is the most important
factor preventing the nursing students to attend clinical practice, and has resulted in
majority of them abandoning the nursing profession (Nasrin et al., 2012:3; Cooper et
al., 2011:2; Msiska et al., 2014a:38). Kapucu and Bulut (2011:1153) pointed out that
for the nursing student to grow professionally, they should be treated with respect
and be accepted as members of the team. The same researchers declared further
that good interpersonal relationship is the cornerstone of the positive clinical learning
environment.

- **Academic pressure**

The pressure of the curriculum and the academic calendar has been found to impact
the baccalaureate nursing students’ clinical experiences negatively. As stated earlier
in the text, the nursing students of institution where the study is conducted have to
attend both theoretical classes and clinical practice concurrently. Mannix et al.
(2006:4) concur with the above indicating that the academic calendar allows the
baccalaureate nursing students a period equalling to the half a year, for both
theoretical and clinical practice. The other half of the academic calendar is spent on
things like preparing students for clinical practice at skills laboratory, examination
weeks, graduations, student recess, and other unplanned activities of the academic
calendar (Mannix et al., 2006:7). All of these factors compromise the already limited
clinical practice time further for the baccalaureate nursing students, making them
more alien to the wards.

Cooper et al. (2011:11) conducted a study to describe the types, sources and
frequency of bullying behaviour encountered by the nursing students in their final
year at the University of Mississippi. The students claimed that the School of Nursing
was the second and the third source of their stress owing to bullying tactics
displayed by faculty members. The nursing students in that study reported that their
faculty’s second source of stress was owing to the “belittling or humiliating”
behaviours often displayed by faculty members towards them. The third source of
stress according to the nursing students in that study was as a result of having to
deal with unmanageable and unrealistic deadlines, therefore affecting their clinical
practice attendance. Hence, majority of them absent themselves from the clinical area to try to complete the assignments and other tasks (Cooper et al., 2011:11). Cooper et al. (2011:12) maintain that the School of Nursing or the Department of Nursing, depending on the capacity of nursing education in that institution, should do away with bullying behaviours as much as possible. This is mainly because the faculty is the most frequent point of contact for the nursing students and is responsible for socialising them into the nursing profession.

Cooper et al. (2011:12) caution that this incivility towards the nursing students may not be the proper way of effectively socialising them into the profession. This might in a way affect the manner in which they communicate with patients in future once they have qualified, thinking that it is the right thing to do because they have copied it from their role models. There is enough evidence to suggest that the clinical learning environment are characterised by incidents of lack of professionalism, unethical behaviour, poor nurse-patient relationship and violence and abuse (Cooper et al., 2011:4; The National Strategic Plan for Nurse Education, Training and Practice, 2012:24; Nasrin et al., 2012:3).

A study by Nasrin et al. (2012:3) explored the understanding of nursing students and instructors concerning the role of nurses in motivating nursing students through clinical education. The study revealed that the nursing students observed the nurses violating the rights of patients by the displaying inhuman behaviour and totally disregarding the patients’ request. One student in that study had this to say about the nurses’ behaviour: “For example, even when the patient is screaming of the pain, it happens that the nurse say shut up to the patient. To give an analgesics for the patient is not that difficult but they refrain even from that…They don’t consider the patient a human.”

Nasrin et al. (2012:1) maintain that nurses in the clinical settings are first role models for the nursing students and their behaviour can have significant influence on nursing students’ future professional behaviour, and can also motivate them to remain in
nursing or leave it. As such, the clinical staff should try to maintain positive clinical learning environment.

2.6. CLINICAL LEARNING ENVIRONMENT (CLE)

The clinical learning environment according to Ali et al. (2015:1) pertain to everything that the Nursing students are exposed to in the clinical practice. Chan (2002) as cited by Flott and Linden (2015:503) defined clinical learning environment as “the interactive network of forces within the clinical setting that influences students’ learning outcomes”. According to Awuah-Peasah et al. (2013:23) and Papastavrou et al. (2010:177) the ‘interactive network of forces’ within the clinical learning environment include, the clinical settings; the approachability of staff and team spirit; flow of information with regard to patients; the leadership style of the unit manager; as well as the clinical teaching strategies in place.

2.6.1. Key components of the clinical learning environments (CLE)

The quality and the safety of the clinical learning environment can be evaluated by the quality of staff (number and proficiency), availability of human and material resources, as well as the effective clinical education in place (Henderson et al., 2011:197). Previous research (Henderson, et al., 2011:197; Siggins Miller Consultants, 2012:5; Tomietto, Comparcini, Saarikoski, Simonetti & Cicolini, 2014:43) assessing the clinical learning environment have identified several factors as essential for enhancing the nursing students’ clinical placement experience. They are the following: the culture for quality in a clinical setting; effective supervision of students; learning opportunities; quality clinical placements and sufficient resources and clinical placement facilities.

- Culture for quality

Culture of quality is the instilled professional behaviour within an organisation dictating the way in which its staff must behave and the values and beliefs to uphold.
The way the nurses treat and interact with each other in clinical learning environments, is dependent on the norms and values of that clinical learning environment (Henderson et al., 2011:199). The clinical learning environment to which students are exposed to are responsible for socialising them to the organisational and professional culture, as well as the values and beliefs of that organisation (Siggins Miller Consultants, 2012:5; de Swardt et al., 2017:1). The culture of quality within the clinical learning environment centres around elements of: leadership, relationship, learning and best practice.

Culture of quality is the culture that advocates for positive interpersonal relationships among staff within the organisation and where support for student learning is a priority (Siggins Miller Consultants, 2012:5; Bryan, Weaver & Anderson-Johnson, 2013:41). The functioning within that organisation is based on evidence-based-practice and best-practice modalities with regard to education and service delivery. Nash, Sacre, Calleja, and Lock (2010:669) highlight that sometimes it is difficult to provide the students with a supportive learning environment because most preceptors find themselves in a dilemma while trying to balance their busy schedule with trying to provide a supportive learning environment. Supportive learning environments have been found to improve students' learning outcomes (Flott & Linden, 2015:502).

- **Effective supervision**

Clinical supervision is an important component of clinical education. Clinical supervision is defined by Pillay and Mtshali (2008:48) as a support mechanism in which practicing professionals share clinical, organisational, developmental, and emotional experiences with another professional in a secure confidential environment. The purpose of clinical supervision is to enhance knowledge and skills. According to Franklin (2013:35), supervisory relationship has shown to influence nursing students' learning outcomes. In addition, Phuma-Ngaiyaye et al., (2017:165) claimed that nursing students regards relationship with their supervisor as one of the most important factors influencing their learning while in clinical practice.
Effective supervisory relationship is the one that maintains a balance between displaying supportive role and providing a constructive feedback (Franklin, 2013:35). According to Siggins Miller Consultants (2012:10), the nursing students’ perception of qualities of a good supervisor are availability of the supervisor; routine supervision sessions; constructive feedback; fair and transparent assessment; respectful and non-judgemental relationship; being organised; possessing strong leadership qualities; has passion for teaching and demonstrating clinical competence. Poor supervisory relationships are those that are characterised by negative comments, humiliating and making nursing students feeling worthless. Contextual factors such as, ineffective evaluation; lack of supervisory experience; not being conversant with students’ learning outcomes, objectives or competencies, can render supervision ineffective (Siggins Miller Consultants, 2012:10; Franklin, 2013:35). As such, Henderson et al. (2011:203) suggest that educational institutions must work hand-in-hand with health care facilities for effective supervision to take place. The clinical teachers and nursing staff have indicated their willingness to supervise nursing students provided they are informed and given guidance as to what is expected of them, or basically, what is it that they have to do (Henderson et al., 2011:203).

**Learning opportunities**

The aim of allocating nursing students to clinical practice is to bridge the gap between academic and workplace learning. The participants in Croxon and Maginnis’ (2009:241) study to evaluate clinical teaching models for nursing practice, indicated that they prefer clinical practice since it provides them with ‘hands on’ experience. In addition, Kaphagawani and Useh (2013:183) argue that the opportunities that the nursing students are given to practice in clinical practice, for example, task participation, allows for learning to take place. However, nursing students have indicated that their opportunities for learning were compromised when task participation is overloaded (Kaphagawani & Useh, 2013:183). They also reported that their involvement in task participation was their most preferred part of engagement in clinical practice as it increases their confidence and the professional role.
The nursing students mentioned that they would like to observe patient care first in order to boost their confidence level before they can actively participate (Kaphagawani & Useh, 2013:183). The nursing students also voiced their interest in teaching their peers; reflecting on their learning experiences and building confidence and competence in practical skills (Siggins Miller Consultants, 2012:10). According to Kaphagawani and Useh (2013:183), the nursing students were also asked to state their dislikes with regard to opportunities for learning. They said they preferred not to have unproductive or non-educational tasks, situations were clinical staff were indifferent to their presence or disregarding them, restricted participation, as well as responsibilities beyond their scope of practice (Kaphagawani and Useh (2013:183).

D’ Souza et al. (2013:29) point out that clinical teachers can use other strategies to create more learning opportunities for nursing students. These strategies include comprehensive care; reflective practice; case studies presentation; searching for evidence-based references; reading clinical articles; participating in clinical discussions; assessment that measure clinical decision making abilities and problem based interest. All these strategies can be employed to bring more meaningful learning opportunities into the clinical learning practice (D’ Souza et al., 2013:29).

- **Quality clinical placements**

Majority of the studies investigating the concept of clinical learning environment on student learning have indicated that nursing students learn better in an environment that is supportive and accommodating (Mabuda et al., 2008:25; Croxon & Maginnis, 2009:237; Papastavrou et al., 2010:177; Awuah-Peasah et al., 2013:23). Conversely, as noted by D’Souza et al. (2013:26), students learn poorly and feel vulnerable in an environment that is unpredictable, unstructured and overwhelming. Issues such as shortage of staff, lack of preceptors and mentors, increased workload, hostility of staff towards baccalaureate nursing students, and poor teaching skills, all contribute to a non-conducive environment for learning (Nursing Times, 2013:19).
• Communication and collaboration

According to Henderson et al. (2011: 200), the collaboration between the health care facilities and higher education institutions can contribute to opportunities for positive clinical learning environment and better learning outcomes for both clinicians and nursing students. Communication and collaboration should involve the health care facilities or placement sites, academic institutions, students and supervisors (Siggins Miller Consultants, 2012:11).

A study by Lawrence (2014:271) exploring an innovative clinical model that could meet the requirements for best practice clinical learning environment reported that the nursing students were frustrated when they arrived at the clinical facility and the staff were not informed of their coming. On the contrary, the clinical facilities were not impressed that the academic institutions allocated their nursing students without informing them, and also sending them without learning outcomes, objectives and nursing students’ expectation. They were also concerned about lack of orientation processes and did not know how to contact the academic staff (Siggins Miller Consultants, 2012:11). The academic staff when asked about the problem experienced by both the students and clinical facilities claimed that they provided the nursing students with information through the use of Webct. Nevertheless, the nursing student did not access that information because nobody made them aware of that. Lawrence (2014:271) cautioned that situations like these would not have happened if all the stakeholders had met on orientation day to discuss what was supposed to happen and deliberate on any outstanding issues.

Another important aspect of communication entails feedback. Feedback is a collaborative process whereby the learner is informed about their performance (Clynes & Raftery, 2008 cited in Kaphagawani & Useh, 2013:184). Several studies have shown that nursing students have indicated that they prefer to be given timely feedback so that they can reflect on their practice and improve their performance in future. Students have complained that they always receive negative feedback and
that in a way demotivates them. It has been noted that when nursing students are
given timely, constructive feedback with regard to their progress and deficiencies in
their practice, they become motivated and confident (Kaphagawani & Useh,
2013:184).

In order for the partnership and collaboration to be effective, Henderson et al. (2011:
200) recommend that formal, open and good lines of communications must be
established between the parties involved. Both parties must be prepared to meet
each other half way by attending to each other’s needs, i.e. if meaningful and healthy
partnerships are to be maintained. Clear guidelines are needed on what both parties
expect from each other (Henderson et al., 2011: 200).

- **Resources and facilities**

Appropriate resources and facilities are needed to optimise the nursing students’
clinical learning experience. The resources like lockers, place allocated for them to
eat, workspace, internet access, study materials, would make a huge impact on the
students’ clinical learning experience (Siggins Miller Consultants, 2012:12).

Lawrence (2014:271) conducted a study with the aim of providing the undergraduate
nursing student with the best practice clinical learning environment. The results of
the study showed that the nursing students who were provided with resources like
car park pass and relevant key codes to access staff toilet and patient pathology
results appreciated the gesture as it made them feel like part of the team. The
students also indicated that the time they usually waste waiting for a member of staff
to do things for them, e.g. waiting for someone free to open doors with their access
card or entering codes for them was saved and used productively on matters of
importance (Lawrence, 2014:271)

The participants in a study by Kapucu and Bulut (2011:1149) exploring the opinions
of the Turkish nursing students with regard to the ideal clinical learning environment,
indicated that their ideal clinical learning environment should include a meeting
2.6.2. Impact of the clinical learning environment (CLE) on clinical learning

The ability of new graduates to fulfil their clinical role, according to Parker and Smith (2012:1) is mainly determined by the quality of clinical learning experiences they encountered during their training. On the other hand, the quality of clinical learning is subject to the nature of the clinical learning environment in which it takes place, be it positive or negative (Nash, 2007:5). Non-conducive clinical learning environment may compromise the nursing students’ learning experiences, thus diminishing their interest in staying in the nursing profession (Emanuel, 2013:2). Similarly, conducive or positive clinical learning environment have the potential to increase the nursing students’ confidence, self-esteem and ability to work in challenging clinical learning environments, thus retaining them in the nursing profession (Parker, 2012:2).

Kaphagawani and Useh (2013:181) pointed out that all the key components of the clinical learning environment mentioned earlier in the text have the potential to impact the nursing students’ clinical learning development and their progression into professional life either negatively or positively. Edgecombe and Bowden (2009:92) postulated that for the new nursing students who have just started training, the clinical learning environment can be equated to:

“a rich environment which, initially, may seem wet, messy, boggy, opaque, threatening and confusing, but which, in reality, provides the nutrients, networks, and constant ebb and flow of new experiences and relationships novice practitioners need to enable them to understand, adapt to, learn how to survive in, thrive on and use its elements to mature from tadpoles (students as beginning nurses) into frogs (proficient novice Registered nurses), able to
leap from swamp (practice environment) to high ground (theory/reflection environment) and vice versa, and to feel equally confident. Competent and safe in each”.

D’Souza et al. (2013:26) shared the same sentiments by stating that the nursing students when entering the clinical learning environment for the first time, experience emotional turmoil or what is commonly known as a ‘reality shock’. Some of the nursing students have even described their experience of entering into a new clinical learning environment like ‘being thrown into the deep end’ (D’Souza et al., 2013:26). In order to assist the “tadpoles (baccalaureate nursing students)” to mature into ‘frogs (proficient novice registered nurses)’, Henderson et al. (2011:2) suggested that the Universities and health care services providers should work together and come up with models that would promote positive clinical learning environments. The clinical learning environment has also been found to have a direct influence on the nursing students’ decision to remain in the nursing profession after graduating or to abandon it (Awuah-Peasah et al., 2013:24). Tomietto et al. (2014:43) postulate that the “interactive network of forces within the clinical setting” need to be identified and dealt with. Bigdeli et al. (2015:2) claimed that the first step towards identifying these interactive network of forces is to assess the nursing students’ perception of their clinical learning experiences within the clinical learning environment. The assessment should be done with the aim of promoting quality clinical education. The students’ perceptions of the clinical learning environments can be assessed by means of their feedback mechanism. Bigdeli et al. (2015:2) claim further that quality clinical education would be beneficial to the nursing students’ clinical learning and enhance their professional growth.

The clinical learning environments with the best possible learning experiences are not only crucial for students’ clinical learning, but according to Bourgeois et al. (2011:114), they are also important for future graduate recruitment into the nursing profession.
2.6.3. Positive clinical learning environments (CLE)

A positive clinical learning environment is a difficult concept to define, since it is a subjective concept (Lawrence, 2014:270; Darcy Associates, 2009:3). What may seem positive to one person might seem negative to another person, depending on the context and the circumstances. The same researchers nonetheless described a positive clinical learning environment as a clinical setting that has adequate and competent staff, optimal physical and technological infrastructure, optimal human and material resources, rich/mix learning opportunities, as well as professional culture (Darcy Associates, 2009:3; Lawrence, 2014:270).

2.6.3.1. Determinants of positive clinical learning environment (CLE)

According to Papastavrou, et al. (2010:180) and Bourgeois et al. (2011:114), a positive clinical learning environment encourages students to ask questions and participate in the discussions. It is determined by the following:

- A safe and pleasant atmosphere.
- Approachable nursing staff.
- Co-operative staff and patients.
- Good interpersonal relationship.
- Mutual respect and trust among staff.
- Spirit of solidarity among the nursing staff and nursing students.

2.6.3.2. The students’ “preferred” clinical learning environments (CLE)

Several studies were conducted by researchers (Kaphagawani & Useh, 2013:183; Lawrence, 2014:270; Bigdeli et al., 2015:2) to assess the perceptions of the undergraduate nursing students with regard to the “actual” and the “preferred/ideal”
clinical learning environment. The findings of those studies revealed that the students considered the following as their ideal clinical learning environment:

- **A welcoming environment**

Majority of the nursing students indicated that they preferred a welcoming environment, which they described as the one where students are orientated and given an induction on the first day in the ward. In this type of a ward, students are delegated tasks like other staff members and allowed to participate actively in the ward activities under the guidance of the experienced staff. More importantly, the ward staff goes out of their way to make the students valued and appreciated (Lawrence, 2014:270).

The participants in a study by Rikhotso et al. (2014:2) conducted to describe the perception of students with regard to guidance and support in rural hospital revealed that nursing students experienced mixed feelings regarding guidance and support in the clinical learning environment. Other students claimed that the registered nurses verbally abused them. The results of that study revealed further that other registered nurses nonetheless made efforts to be welcoming. Henderson et al. (2011:197) underscore that it is very crucial for the clinical setting to create learning environment that encourages healthy working relationship between staff and students.

- **A culture of learning**

A clinical learning environment that supports a culture of learning is the one that values student learning and satisfaction; that promotes positive relationship, supports learning, as well as promoting best practice in teaching and patient care (D’souza, et al. 2013:26). A supportive clinical learning environment is important for effective learning outcomes. In a study by Croxon and Maginnis (2009:236) evaluating clinical teaching models for nursing practice, the undergraduate students indicated that they preferred the staff that is friendly, available and willing to teach them.
• A safe environment

The American Association of College of Nursing (AACN) (2008:1) postulates that the nursing students have to undergo their clinical learning experiences in a clinical learning environment that recognises the following values: autonomy, human dignity, integrity, respect, and social justice. According to the Royal College of Anaesthetists (n.d:3), a safe environment includes emotional, physical, psychological, and professional environment. The students feel free to ask questions and are not afraid to make mistakes in a safe environment. More importantly, they are not ridiculed when they have made mistakes and are supported by clinical teachers.

The physical structure constitutes the ward atmosphere with the teaching resources available in the department; the organisational processes such as the hospital induction programme, as well as the people with good interpersonal relationships. On the other hand, the intellectual space pertains to motivation to learn; learning in a safe environment; as well as a sense of belonging and to be accepted within a team. All of these processes lead to the building of the learners’ confidence provided they take place within a positive learning environment (The Royal College of Anaesthetists, n.d,: 3). Anthony and Yastik (2011:140) observe that in nursing “nurses eat their young”. Nursing students have repeatedly reported in several studies (Mabuda et al., 2008:20; Croxon & Maginnis, 2009:238; Bourgeois et al., 2011:11) that some of the nursing staff were the source of their stress.

A study by Parker and Smith (2012:2) showed that nursing students viewed the clinical learning environment as anxiety-provoking. The nursing students felt afraid, vulnerable and devalued. They reported that the staff were hostile, disrespectful and rude towards them. The nursing student said that they sometimes felt uncomfortable to perform procedures according to the traditional way it is done in the ward. This was despite knowing the right thing to do based on best practice guidelines and how they were taught in class. Kaphagawani and Useh (2013:181) buttress that students become anxious and confused when they are expected to practice something
different to what was taught in class. Hence, they find it difficult to integrate theory to practice. The nursing students said they preferred the environment in which they are respected and considered as part of the team. They also want their efforts and individuality to be recognised (Smedley & Morey, 2010:79)

• Appropriate learning opportunities

Lack of support from educators, poor relationship with staff and lack of challenging learning opportunities are some of the factors contributing to ineffective learning in clinical learning practice (Kaphagawani & Useh, 2013:181). In a positive clinical learning environment, nursing students are treated as learners, not as extra pair hands (Parker & Smith, 2012:2). They are delegated duties according to their scope of practice. They are encouraged to participate actively in ward activities. Different strategies of clinical teaching are employed, for example, teachable moments, on the spot teaching, case studies and ward rounds.

The clinical learning environment should have appropriate learning opportunities that prepare students with adequate and quality education that will enable them to function as independent and competent practitioners once they have graduated. In order for students to gain confidence and be competent practitioners, they should be allowed to practice different skills under the guidance and supervision of the clinical teachers until they master those skills. This will increase their self-esteem and confidence (Kaphagawani & Useh, 2013:182). The same researchers suggest that the student should be afforded a chance to actively participate in challenging learning opportunities as it will improve their problem-solving and critical thinking skills.

• Clarity of objectives
In order for the nursing students to be provided with positive learning experiences, Nursing Times (2013:1) avers that the academia and the health care service must have a robust working relationship with clear expectations on both sides. If there are any issues hindering these endeavours, they should be addressed amicably. Clarifying of objectives between the NEI and their clinical partners can lead to productive and healthy partnership (Nursing Times, 2013:1). A study by Lawrence (2014:269) to develop a clinical model that could meet the requirements of Best Practice CLE is an example of that. Lawrence (2014:269) reports that before the model could be developed, there was a strained relationship between the academia and the service. The clinical staff always complained that they were not aware of the students learning objectives and were in the dark as far as curriculum was concerned. There was apparently a noticeable change among the clinical staff after the model was implemented. The students who participated in that study commented that the clinical staff was now committed to teaching them and showed more interest in their clinical learning. Academic institutions must be supportive of clinical teachers. More importantly, academic staff must provide clinical staff with student learning objectives. The clinical teachers must also be involved in student's assessment and be given in-service education and workshops in relation to student programme (Lawrence, 2014:269).

- **High quality clinical education staff**

Academic institutions have to work with the health care institutions in order for prepare baccalaureate nursing students for the complex clinical practice (Nursing Times, 2013:18). Student supervision and support in the clinical learning environment is needed in order for effective clinical learning to take place (Kaphagawani & Useh, 2013:183). According to Nursing Times (2013:19), the students have indicated that they had problems with the type of mentoring they received in some of the clinical learning environment. Some clinical areas were found welcoming while others were unreceptive. Other factors preventing mentors to do their mentoring role is due to some organisational constraints such as increased workload and lack of experience in teaching students. In some instances, nurse teachers take the role of evaluators instead of supervising and guiding students, and
leave that role to the ward staff who are not well conversant with clinical teaching to mentor students (Kaphagawani & Useh, 2013:183). Clinical teachers should be role models; must have good interpersonal attributes; be lifelong learners themselves; have confidence; be highly skilled and be good at problem solving and handling of conflicts (Darcy Associates, 2009:76). The clinical teacher or mentor must be multidisciplinary in nature.

Henderson et al. (2011:198) developed a framework that encourages the creation of a culture that encourages continuous clinical learning in health facilities. The framework posits that good leadership practices should be employed. Good leadership practices entail the following: an environment where staff communicates freely without fearing victimisation, empowered by being given opportunities to attend mentoring courses and a fair distribution of work. Good leadership practices also pertain to affording those involved in clinical teaching a chance to interact with students. Lastly, the educational providers should support clinical staff by making opportunities available for their own professional development (Henderson et al., 2011:198).

- Well prepared learners

According to Nursing Times (2013:19), some mentors feel that nursing students should take charge of their learning by identifying learning opportunities, instead of expecting clinical teachers to spoon-feed them. Similarly, Parker and Smith (2012:2) concur that nursing students can show eagerness and commitment in their learning by being self-directed. Self-directed learning is a process by which one becomes proactive with regard to their learning in general. Essentially, self-directed learners are those that take initiative towards achieving their learning goals, as well as applying appropriate learning strategies with little guidance or none from their clinical teachers (ibid). Self-directed learning allows students to take their learning serious and come to clinical learning practice well prepared. Moreover, self-directed students show enthusiasm towards their learning, are inquisitive and ask questions when they
do not understand. They adapt easily to new environments (Darcy Associates, 2009:76).

The results of the study by Awuah-Peasah et al. (2013:26) to determine the attitudes of student nurses towards clinical work raised some concerns. Sixty six (66%) of the clinical nursing staff who were the participants in that study reported that the nursing students were lazy and indifferent towards their clinical learning. Some students absented themselves from clinical work without permission and did not report on their whereabouts. Other nursing students were reported to spend more time on their mobile telephones, and ended up missing on learning opportunities (Awuah-Peasah et al., 2013:26). In order to prevent this type of behaviour, and allow nursing student to get most out of their clinical learning environment, they must be thoroughly orientated before commencing with their clinical practicum. They must be also be informed of their expectations and be advised to behave professionally at all times (Awuah-Peasah et al., 2013:26).

- **Appropriate ratio of learners to educators**

The ratio of learners to educators is an area of concern that needs attention (Croxon & Maginnis, 2009:240). The leadership should foster a culture of teaching and learning in clinical practice. In order for nursing students to have meaningful and optimal clinical learning, the wards or units must have adequate number of staff, especially registered nurses with different skill mix. The shortage of registered nurses in health care settings has forced the health care leadership to substitute registered nurses with enrolled nurses or nursing assistants (Croxon & Maginnis, 2009:240). The latter researchers warn that this practice may lead to role confusion and conflict of interest as the nursing student will be partnered with nurses whose scope of practice is lower than theirs.

Management should consider practices that contribute to clinical learning, such as allocating an adequate number registered nurses on duty in any given day and;
partnering nursing students or novice registered nurses with experienced registered nurse (Croxon & Maginnis, 2009:240). Delegation of duties should also be fair, with registered nurses who are involved in clinical teaching given chance to teach students (Henderson et al., 2011:201). This may reduce “role overload” that the registered nurses might experience when they combine clinical supervision of nursing students with patient care.

• Continuity of learning experiences

The baccalaureate nursing students have a challenge of limited time in the clinical practice. In addition, when they do get a chance to go to clinical practice, it is for a limited periods. As such, Croxin and Maginnis (2009:240) recommend that the available time should be focused on students clinical learning, rather than on the needs of the service. The nursing students should not be allowed to be away from the unit for a long period of time (Croxon & Maginnis, 2009:240). This will lead to breakage in their learning experiences. NEI should work with the service to find ways of exposing nursing student more to the clinical practice so that they do not forget the routine and procedures (Darcy Associates, 2009:76). If possible, the nursing students should be assigned same clinical teachers to maintain continuity. The assignment of same clinical teachers will make them to be comfortable and be able to ask questions.

• Structured learning program and assessment

Multiple hiccups can be experienced with regard to placement of students in the clinical setting if the academia and health care services are not working together. Learning programmes should be structured and formalised (Kaphagawani & Useh, 2013:183). Elements such as students’ learning needs; learning objectives; learning outcomes; as well as the time frames needed to achieve all those, must be communicated to all the stakeholders before the start of the academic year during orientation (Kaphagawani & Useh, 2013:183). The clinical teachers must be involved in the drawing of the clinical programme so that they can have inputs with regard to accommodation of different levels of students in their wards.
Frantz and Rhoda (2007:5) undertook a study to assess clinical placements for Bachelor of Science physiotherapy programme. The results of their study demonstrated that the students were concerned about the preparation for their clinical block in certain clinical placement areas. The students expressed concern about the seemingly unstructured programme that resulted in the shortage of supervisors and lack of interactions with patients. The students in that study contended that had the clinical teachers been involved in the drawing of that placement programme, this might have been prevented. The academic institutions have to orientate students thoroughly about their programme to avoid disappointments (Frantz & Rhoda, 2007:5).

2.6.4. Factors contributing to non-conducive clinical learning environment (CLE)

According to Labrague (2013:425) the clinical learning environment are stressful for nursing students. The two most factors contributing to lack of satisfaction and success in clinical practice are occupational stress, workplace incivility and hostility. The two elements if not dealt with in the beginning can have devastating impact on the nursing students’ individual learning experiences, academic performance, as well as their general wellbeing. The stressors can also have profound impact on the working teams as well as the whole organisation (Labrague, 2013:425; Siggins Miller Consultants, 2012:13).

The anxiety caused by occupational stress can be detrimental to students’ clinical learning and reduce academic performance, therefore affecting their professional behaviours. Labrague (2013:425) and Nursing Times (2013:19) postulate that this anxiety might be owing to fear of the unknown and uncertainty about role expectations. To provide nursing students with positive CLE, Nursing Times
(2013:19) suggested that the academic institution and health care facilities should work together, by setting clear expectations from both parties. Structures should be set in place whereby issues affecting practice in the clinical learning practice can be addressed (Nursing Times, 2013:19).

2.6.4.1. Occupational stress

Psychological stress for nursing student in the clinical learning environment might be as a result of high workload; low level of control; lack of supervision and support and lack of recognition (Siggins Miller Consultants, 2012:13). Other common stressors experienced by nursing students are owing to:

- First clinical exposure.
- Lack of adequate preparation or orientation for clinical placement.
- Poor supervision and conflict with supervisors.
- Amount of information to be gathered from CLE and the pace at which it must be done.
- Lack of support from co-workers and academic institution.
- Fear of making mistakes.
- Fear of competence assessment.
- Feeling of not belonging.
- Feeling of being intimidated by clinical staff.
- Taking care of critical patients.
- Being used as extra pair of hands (workers) to curb staff shortage.
These stressors, according to Siggins Miller Consultants (2012:14) can be prevented by creating positive clinical learning environment. Corrective measures should start at organisational level by providing the nursing students with social, emotional and professional support. Bourgeois et al. (2011:116) suggest that another way of reducing this occupational stress for nursing students is to welcome them in the unit, provide them with adequate support and recognise their individuality. A study by Smedley and Morey (2010:79) revealed that the nursing students preferred the clinical learning environment where they were respected and considered as part of the team. They also indicated that they want their efforts to be acknowledged. D'Souza et al. (2013:26) maintain that a supportive environment is important for effective clinical learning.

2.6.4.2. Workplace incivility and hostility

Previous research has shown that clinical staff can be the source of nursing student stress in the clinical learning environment. Smedley and Morey (2010:77) declare that clinical learning environment is community of practice characterised by social interaction constituting of, caring, support, understanding and unity. Several studies have shown that nursing students’ satisfaction with clinical learning environment increase when they feel as part of the community of practice. Being accepted as part of the community of practice enhances the nursing students’ sense of belonging, feeling of acceptance, and security and respect (Smedley & Morey, 2010:77; D'Souza et al., 2013:26; Kaphagawani & Useh, 2013:183).

A positive ward leadership has been found to promote learning culture (Skaalvik, Normann & Henriksen, 2011:24). Leaders who value learning in their clinical learning environment have been associated with students who are highly motivated and perform well in their studies, academically and clinically. Quality of leadership has an influence on quality of care in that clinical learning environment, subsequently, affecting the quality of clinical learning (Skaalvik et al., 2011:24). Positive clinical learning environment conducive to students’ learning and satisfaction is based on a culture that values positive relationship; supports learning and promotes best
practice in clinical teaching and patient care (Siggins Miller Consultants, 2012:14). Nursing students should also be empowered on assertiveness and conflict management (ibid).

2.7. ASSESSMENT OF CLINICAL LEARNING ENVIRONMENT (CLE)

Henriksen et al. (2012:1) postulate that research to assess the nursing students’ perception of the clinical learning environment has been conducted since 1991, using both quantitative and qualitative methods. Quantitative studies were conducted using a CLE Scale (CLES), a tool developed by Dunn and Burnett in 1995 to evaluate the nursing students’ perception of the clinical learning environment (Sand-Jecklin, 2000; Flott & Linden, 2015:503). The tool upon finalisation had 23 items, with five sub-scales assessing: student-staff relationship; nurse manager commitment; patient relationship; interpersonal relationship and student satisfaction. Subsequent to that, several researchers (Chad, 2002; Sand-Jecklin, 2000; Smedley & Morey, 2010, Henriksen et al., 2012) have since adapted and modified the CLES by adding items in the sub-scales or even changing the sub-scales as well as renaming it, depending in their context.

The researchers (Tomietto et al., 2012:72) developed the CLES further by adding Supervision and Nurse Teacher scale. This was added in order to assess the nurse teacher role with regard to wide range of clinical teaching strategies, as well as liaising between the academia and the service providers. Adoption of CLES by different countries saw it being translated into different languages owing to its reliability (Saarikoski, 2012:2). The theoretical framework of the origin of CLES is based on the research conducted during the 1980-1998 in order to assess the quality of the CLE and the models of supervision employed then (Saarikoski, 2012:2).

Despite these modifications by different researchers, the results of both quantitative and qualitative studies evaluating the nursing students’ perception of the clinical
learning environment were similar and have remained consistent. This was confirmed in a study by Smedley and Morey (2010:80) which demonstrated that the nursing students, irrespective of their age, context or country, share same perceptions regarding the important characteristics of a clinical learning environment.

The assessment of the clinical learning environment from the preceptors’ perspective yielded limited results (Leners, Sitzman & Hessler, 2006; Nash, 2007:6; Phuma-Ngaiyaye et al., 2017:164). In comparison, the clinical preceptors indicated that they would like to work as team with the university. The clinical preceptors also wished to be informed about the nursing students’ clinical programme and learning objectives (Phuma-Ngaiyaye et al., 2017:165).

2.8. MODELS FOR POSITIVE CLINICAL LEARNING ENVIRONMENT (CLE)

According to Darcy Associates (2009:18) there are currently limited number of models specifically designed to create or promote positive clinical learning environments in place. Instead, there are a number of set of minimum standards developed for training institutions or hospitals. However, Niederhauser et al. (2012:1) and Darcy Associates (2009:75) pointed out that these models have their limitations and proved not to be ‘one-size-fits-all’ since they are contextual in nature. They are also not detailed since they do not specifically address the aspects of clinical learning environments in particular (Niederhauser et al., 2012:1). There is also a lack of evidence proving that these models are effective when compared to others in terms of promoting positive clinical learning environments (Nash, 2007:2; Franklin, 2013:36). Thus, a call made by Klein-Collins (2011:3) to the nursing fraternity to come-up with radical and new innovations that will promote positive clinical learning environments. The examples of those models are: a model for clinical learning environments by Flinders University in South Australia; the Queens Occupational Therapists Fieldwork Collaborative (QOTFC); the Australian Nursing and midwifery Council guidelines and Placement in Focus document by the UK Department of health, and the Dedicated Education Units (Darcy Associates, 2009:75).
There are also other clinical supervision models currently in use by many countries such as scatter model, where one to two students are allocated to a ward with a clinical facilitator supervising several wards, with the ratio sometimes at 1:8 (Bourgeois, et al. 2011:115; Franklin, 2013:39). The other one is the preceptorship model where a student works closely with one registered nurse with a ratio of one-to-one (Phuma-Ngaiyaye et al., 2017:165). In the cluster/clinical facilitator model, eight students are allocated to selected wards and are supervised by ward registered nurses who volunteer to be clinical facilitators. The university supports and pays these registered nurses (Bourgeois et al., 2011:115; Franklin, 2013:38).

The Dedicated Education Units (DEU) is another clinical teaching model that is popular in many countries (Jamieson, Sims, Casey, Whittle & Kilkenny, 2008:5; Franklin, 2013:39). The DEU clinical teaching model was first developed by the Flinders University School of Nursing, Adelaide in South Australia in 1997 as a modification of the other existing clinical teaching models. The DEU model has been hailed as innovative by many nursing researchers (Jamieson et al., 2008:5; Edgecombe & Bowden, 2009:92; Parker, 2012:2; Franklin, 2013:39). The DEU popularity saw it being adopted by countries such as, USA, UK, to name a few. The DEU gained its popularity based on the fact that it places its emphasis on the partnership between the NEI and the clinical facilities such as the hospitals, in giving the undergraduate nursing students the best clinical learning experience (Klein-collins, 2011:4). The key principles of the DEU model are the ongoing collaboration and open communication between the academic and service providers, as well as utilisation of effective clinical teaching strategies to provide optimal clinical learning opportunities to the undergraduate nursing students (Klein-Collins, 2011:4; Franklin, 2013:39). In the DEU model, a range of six to 10 students are allocated to selected clinical areas with clinicians and academia working together to offer support and learning. However, all these models have been found to have limitations as they are contextual and provide haphazard approach to learning (Niederhauser et al., 2012:1).
The English Nursing Board and United Kingdom Department of Health in consultation with hospitals, universities and professional bodies have published a document titled ‘A Placement in Focus’. This document was intended to provide guidance to placement institutions and health professionals with regard to maintenance of quality of clinical placement (Darcy Associates, 2009:78). To date, according to Darcy associates (2009:78), ‘A Placement in Focus’ is the only model that is considered relevant for positive clinical learning environment since it talks to specific issues affecting it. The Placement in Focus covers components of best practice clinical placements. They are the following:

- Learning environments.
- Student support.
- Providing placement.
- Assessments.

The Ireland Nursing and Midwifery regulating body, An Bord Altranais, created an evidence-based guidelines advising clinical facilities on components of a quality clinical learning environment (Darcy Associates, 2009:78). They are the following:

- Professional conduct – it involves values, ethos and professional behaviour.
- Factors influencing clinical learning – it involves ward culture, leadership style, resources, structure and process, staff attitude towards learners, communication and those inhibiting learning.
- Designing and managing clinical learning experience – involves guidance on providing effective clinical teaching and learning.
- Assessment of learning – includes best assessment method and tools for different skills.
- Documentation – by the nursing student at their various learning experiences to aid their learning process, e.g. using of reflective journals and portfolios.
In South Africa, it was only recent that a model for clinical nursing education and training was developed and send to the NEI and the health care facilities for implementation (The Nursing Education Stakeholders (NES) Group 2012:1). According to The National Strategic Plan for Nurse Education, Training and Practice (2012:21), the non-conduciveness of the clinical learning environment and the declining quality of clinical education compelled the Minister of Health, Dr A. Motsoaledi to summon all nurses from all over the country and other stakeholders to a National Summit in 2011. The purpose of that summit was to come up with the turnaround strategies that could promote positive clinical learning environment. The meeting eventually culminated into the development of The National Strategic Plan for Nurse Education, Training and Practice (2012:21), a document outlining the challenges facing nursing education and training in South Africa, as well as recommendations on how they can be addressed. The document acknowledged nursing education and training as the first major challenge facing the nursing profession. This resulted in the need for the development of the clinical education and training model as priority number one and a matter of urgency.

The proposed model for clinical nursing education and training currently being trialled in South Africa is as a result of that process. The structure of the model for clinical nursing education and training has the following components: the student, who is the focus of the activities; the health system in which clinical learning takes place; the NEI responsible for education programme and the regulating body, SANC. There are also responsibilities for each components and the guidelines as to how the model can be implemented. However, there is also a short fall identified with regard to this model. The challenge identified with regard to the model for clinical nursing education and training in South Africa (2012) is in relation to the ‘how of addressing’ the clinical learning environments’ challenges. Challenges such as, shortage of staff; lack of preceptors and mentors; increased workload; hostility of staff towards nursing students; and poor teaching skills (Lekhuleni et al., 2004:25; Mabuda et al., 2008; Rikhotso et al., 2014:2; Phuma-Ngaiyaye et al., 2017:166) are not clearly articulated on how are they going to be addressed. Issues such as ‘best practice environments’ are mentioned, but how they should be ensured, again it is not mentioned. Instead, it
is left to the NEI and the health care facilities to come with suggestions and find ways on how to deal with them.

The models to promote positive clinical learning environment in nursing education, especially those that will address issues mentioned above are therefore clearly warranted (Gaberson & Oermann, 2010:3). The same researchers further declared that a major determinant of the effectiveness of clinical teaching is the context in which it occurs.

2.9. CONCLUSION

The pivotal role played by clinical teaching component in nursing education can no longer be taken for granted or ignored. Clinical teaching forms the core business of nursing education and is an essential part of nursing curricula. Clinical teaching provides nursing students with skills needed for nursing practice, as well as opportunities to practice real nursing on real patients. Paramount to the effectiveness of clinical teaching is the nature of clinical environments in which clinical teaching and learning takes place. It is widely acknowledged in the literature that the clinical learning environment that provide the nursing students with the best possible learning experiences are not only crucial for students’ clinical learning. They are also important for future graduate recruitment into the nursing profession, especially when considering the shortage of nursing workforce experienced globally.

With all the concerns advanced with regard to the non-conduciveness of the clinical learning environment, the onus now lies with both the nursing education institutions and the health care facilities to work jointly in creating positive suitable for the training of the calibre of nurses that satisfy SANC requirement and more importantly, that the country can be proud of. Chapter 2 dealt with the literature review on issues pertaining to clinical learning environment and their impact on the baccalaureate clinical nursing education. Chapter 3 discusses the research methodology followed
CHAPTER 3

RESEARCH METHODOLOGY

3.1. INTRODUCTION

The main aim of this chapter is to describe the research methodology that was followed towards the attainment of the purpose and the objectives of this study. Gray et al. (2017:682) describe research methodology as the major research types or designs of the research chosen by the researcher to answer the research question.
The research purpose and objectives of this study as stated previously in chapter 1, section 1.4 will be reintroduced. Thereafter, the research design and the methods followed in this study will discussed sequentially.

3.2. RESEARCH PURPOSE AND OBJECTIVES

The main purpose of this study was to develop and describe a model to promote a positive clinical learning environment for the nursing students at a tertiary institution. In order to attain this purpose, the following objectives were pursued:

- To assess and describe the perceptions of the nursing students with regard to the clinical learning environments at the hospital.
- To determine the views of the nursing students with regard to the preferred clinical learning environments at the hospital.
- To assess and describe the perceptions of hospital R/Ns with regard to the clinical learning environments at the hospital.
- To determine the views of the hospital R/Ns with regard to the preferred clinical learning environments at the hospital.
- To develop a model to promote positive clinical learning environments at the hospital.
- To evaluate the model to promote positive clinical learning environments at the hospital.

3.3. RESEARCH DESIGN

A theory generating, exploratory and descriptive research design utilising a mixed model research approach was adopted for the attainment of the purpose of this study and carried out in three phases. The mixed model research used herein entailed the within-stage mixing of quantitative and qualitative approaches, with the
quantitative approach having a dominant status. The combination of quantitative and qualitative designs to study the same phenomenon is called triangulation (Yeasmin & Rahman, 2012:154). The researcher chose the mixed model approach in this study in order to triangulate different, but complimentary data collecting techniques to get different perspectives on clinical learning environment from the study’s respondents (Chinn & Kramer, 2011:49; Wright, 2013:1). According to Wright (2013:1), there are two major types of mixed research, namely: the mixed model research and the mixed method research. Mixed research as a standalone paradigm has its roots in the philosophy of pragmatism (Wright, 2013:1). The guiding principle of combining methods as seen in a mixed research is based on complementary strengths and not on the overlapping weaknesses of the methodologies. The findings of this study from both the quantitative and qualitative data were found to be complimentary. This also validated the CLE assessment questionnaire used as a data collection tool as reliable.

Chinn and Kramer (2011:175) posit that the decision on the type of research methodology suitable for a study depends mainly on what is already known about the topic, and mainly guided by the researcher’s philosophical believe system. The researcher was guided by the pragmatism paradigm. The philosophical underpinnings of pragmatism acknowledges the mixture of approaches with the view of finding what is useful and works better in a real world situation. This is irrespective of the paradigmatic and philosophical assumptions of either the quantitative or qualitative design (Wright, 2013:1). In support, Chinn and Kramer (2011:49) posit that blending of different approaches in knowledge development process should be encouraged in nursing research, especially if the research aim is to be achieved. The same researchers caution that rather than being stereotyped to the mono-method research designs as standalone designs, i.e. the quantitative or qualitative approaches used separately as mini studies in a single study, simple ways should be employed that can blend and compliment the findings (Chinn & Kramer, 2011:50).

In this study, the target population was composed of the nursing students and the hospital registered nurses, which are people or social beings. The setting of this
study was the hospital wards, representing the social practice environment. As noted by Cameron (2009:141), people and the environment are one way or the other affecting each other, and the researcher is by association, also affected. The “truth” of what is really happening in the social practice, the clinical learning environment in this context could only be learnt using methodological triangulation.

3.3.1. Mixed method research

Even though the mixed method research does not form the scope of this study, the researcher thought that it is necessary to comment briefly on it so that the reader can be able to distinguish it from its counterpart, i.e. mixed model research design chosen for this study. The mixed method research involves the mixing of the quantitative and qualitative paradigm in one study but at different phases (Wright, 2013:8). A mixed method research can be equated to conducting two mini-studies within a single overall study (Wright, 2013:8). This is so because the mixed method research study entails the quantitative phase as well as a qualitative phase (Wright, 2013:6). An example of a mixed method research can be a situation whereby the researcher collects data quantitatively in the first phase of the study, followed by the collection of qualitative data in the form of interviews or focus group in the second phase. In addition, the mixed method research is classified according to time order, i.e. it can be conducted simultaneously or sequentially. It can also be categorised according to the paradigmatic emphasis. The paradigm emphasis can be in the form of both quantitative and qualitative paradigms being awarded equal status. Alternatively, this can be done by awarding either quantitative or qualitative paradigms a dominant status.

3.3.2. Mixed model research

Contrary to mixed method research, the mixed model research uses the combination of both the quantitative and qualitative approaches at different levels or stages of the research process. The mixing of quantitative and qualitative approaches can either be in what is termed the within-stage or across-stage mixed model research (Wright, 2013:5). A within-stage mixed model research involves the mixing of the approaches
within one or more of the stages of the research. According to Wright (2013:5), an example of a within-stage mixed model research would be when a questionnaire with close-ended questions is used to collect quantitative data. The mixing occurs when the open-ended questions are included in the same questionnaire in order to collect qualitative data.

In this study, a Clinical Learning Environment Assessment questionnaire with both close and structured open-ended questions was used to assess the perceptions of both study’s respondents with regard to the clinical learning environment; hence the within-stage mixed model research. The mixing of quantitative and qualitative data helped the researcher to get another perspective and a better understanding of the concepts relating to positive clinical learning environment, without going through the lengths of conducting two mini studies in one. Wang and Mulrow (2014:1113) highlight that the qualitative data from the open-ended questions often reflect exactly what the respondents want to say, which in most instances, is not covered in the options provided by the pre-determined close-ended questions. This process of converging different data collection methods for getting another point of view is known as methodological triangulation (Yeasmin & Rahman, 2012:154). Methodological triangulation can also serve a purpose of validating the research instrument, data and findings. The results of both approaches informed the development of the model to promote positive clinical learning environment for the nursing students at tertiary in South Africa.

3.3.3. Theory generation

The premise on which this study is based was to generate theory through the development of the model to promote positive clinical learning environment in order to improve students’ learning in clinical practice. Chinn and Kramer (2011:155) describe a theory as “a creative and rigorous structuring of ideas that projects a tentative, purposeful, and systematic view of phenomena”, and theory structuring as the linking of concepts in a systematic way (Chinn & Kramer, 2011:175). This linkage of concepts to show their interrelationship can be represented symbolically, diagrammatically or words in a form of a model (Chinn & Kramer, 2011:157). A theory guides the whole research process from formulation of the research question,
choice of the research design, to data analysis and interpretation of results (Imenda, 2014:187).

The model to promote positive clinical learning environment was developed logically and systematically through three phases to describe how the nursing students and the hospital registered nurses perceive the reality of clinical learning environment, and how it affects their learning. All the steps of theory generation as suggested by Chinn and Kramer (2011:16), namely, identification and definition of concepts; identification of assumptions; clarification of the context, as well as structuring of the relationship statements, were followed during the development of the model (see Chapter 6, Section 6.2). Concepts related to positive clinical learning environment were identified and analysed through concept analysis from these perceptions (refer Chapter 5, Section 5.2). Furthermore, interrelationship statements were formulated to construct the model, indicating the suggested relationship between and among concepts, thus providing basis for the generation of new theory or knowledge for clinical practice. According to Meleis (2012:408), theory, research and practice are interdependent and their actions are reciprocal. Figure 3.1 depicts the process of knowledge development (Ahmad, n.d:4)

![Figure 3.1: Knowledge development process (adapted from Ahmad, n.d:4)](image-url)
The theory generated by this study is intended to improve the quality of learning within clinical nursing practice. The model to promote clinical nursing environment is also intended to improve the nursing students’ learning experiences, subsequently, leading to improved clinical learning outcomes. Chinn and Kramer (2011:174) accentuate that development of a theory involves rigorous structuring of ideas requiring logical reasoning strategies which can either be deductive or inductive. According to Elo, Kääriäinen, Isola, and Kyngäs (2013:1), these phases often take place in turns. The model of positive clinical learning environment was developed by following the deductive-inductive reasoning strategies.

- **Deductive reasoning**

Deductive logic of reasoning generates knowledge moving from the general to particular and is mostly associated with quantitative research (Chinn & Kramer, 2011:181; Elo et al., 2013:1). In deductive logic of reasoning, theory is generated through an established theory or a framework from which the concepts have been reduced into variables that must be assessed or tested. Deductive reasoning was established in this study by locating concepts relevant to the clinical learning environment through general means of literature review. The theoretical framework based on Donabedian’s theory of quality improvement for health care systems and Benner’s theory of skills acquisition in clinical practice were used to guide the direction of the study. The perceptions of both the nursing students and the hospital registered nurses with regard to clinical learning environment were assessed with a questionnaire with predetermined concepts. The findings were compared against the qualitative findings for confirmation.

- **Inductive reasoning**

Inductive logic of reasoning in contrast to deductive logic of reasoning generates knowledge from the particular point to general and is associated with qualitative
research (Elo et al., 2013:3). This type of reasoning is mainly used when little is known about the phenomenon under investigation (Chinn & Kramer, 2011:181).

The inductive reasoning in this study was applied by synthesising concepts from the qualitative data obtained from the open-ended questions. The respondents of this study were asked to describe in their own words in writing, the nature of the current clinical learning environment, as well as their preferences with regard to clinical learning environment. Concepts were constructed from the responses and categorised according to themes in order to form main concepts. The aim was to determine the attributes of positive clinical learning environment from the respondents’ viewpoint. The main concepts formed inductively from the respondents’ responses were then compared against the predetermined concepts in the assessment tool to see if they corroborated each other. It can be seen from this explanation that the process was iterative.

3.3.4. Quantitative research

According to Gray et al. (2017:193), quantitative research is an approach that employs objective, rigorous and systematic methods for investigating a phenomenon of interest in order to generate knowledge numerically. In this study, the researcher used quantitative design to assess the perceptions of the nursing students, and the hospital registered nurses with regard to the clinical learning environment at the hospital. The perceptions of the two groups were calculated and quantified numerically, with the findings reported using inferential statistics.

3.3.5. Qualitative research

Gray et al. (2017:689) define qualitative research as a scholarly and rigorous approach in which the life experiences, cultures and social processes are described from the perspectives of the people involved. Gray et al. (2017:64) posit further that qualitative researchers most importantly use open-ended questions and semi-structured methods in an attempt to gather deeper and richer understanding about
the phenomenon under investigation, which is not always possible to gather with quantitative approach.

The researcher used qualitative research in this study to explore the views of both study respondents with regard to the aspects of the ward that hindered and promoted students’ learning within the clinical learning. The respondents’ views with regard to their preferred clinical learning environment were also explored. Qualitative data was gathered by means of a questionnaire with both close and open-ended questions, with the aim of getting ‘unspoken’ words or information not covered by the close-ended questions. According to Zohrabi (2013:255), a questionnaire with both type of questions grants the researcher the liberty to obtain quantitative or numerical data and confirm or dispute the findings with qualitative data or text information. Qualitative data enabled the researcher to get a clear reflection and more insight about the nature of the current clinical learning environment from the respondents’ own voices.

3.3.6. Exploratory

An exploratory research is used to investigate the full nature of the phenomenon by looking at different dimensions; the manner in which it manifests, as well as factors associated with it (Polit & Beck, 2012:17). Against this background, the use of exploratory research in this study assisted the researcher to explore and gain more insight into models that can promote positive clinical learning environment for the nursing students in South African tertiary institutions, since limited information was found in that regard. The views of the nursing students and the hospital registered nurses were also explored qualitatively with regard to their preferences relating to clinical learning environment. The aim was to gain in-depth knowledge on their preferred form of positive clinical learning environment not captured by the quantitative aspect of the CLE assessment questionnaire. The subsequent responses emanating from the structured open-ended questions yielded substantial information that contributed immensely to the development of the model to promote positive clinical learning environment for the nursing students in South Africa.
3.3.7. Descriptive

A descriptive research provides an accurate account of events and information surrounding the prevalence and frequencies of variables in the collected data (Gray et al., 2017:676). The aim of descriptive research as noted by Elo et al. (2013:2) and Gray et al. (2017:200) is not to investigate the effect of one variable on the other, but to answer the question of “What is?” Therefore, the descriptive research in this study enabled the researcher to describe accurately the findings from the perceptions of both the nursing students and the hospital registered nurses by means of descriptive statistics. The interrelationships statements in the constructed model were designed to describe the concepts central to positive clinical learning environment and their relationship or influence on the nursing students’ learning experiences and outcomes.

3.3.8. Contextual

The term context is defined by McIntosh (2013:326) as “the situation within which something exists or happens, and that can help to explain it”. The context in this study pertains to the clinical learning environment that the nursing students are exposed to in pursuit of clinical skills and competencies. In this instance, the clinical learning environment involves the hospital where the study was conducted and the selected NEI nursing department.

3.4. RESEARCH METHODS

Research methods denote the specific way in which the study will be conducted using the chosen research design. These refer to the steps and procedures of gathering and analysing data with regard to the setting, subject selection, data collection methods and analysis, as well as the steps taken to minimise errors that can threaten the study findings (Gray et al., 2017:683). The study was conducted in three phases.
• Phase one

The objectives 1-4 as stated in Chapter 1, Section 1.6, and Section 3.6 were achieved in this phase. In phase one, an extensive literature review was conducted in order to identify the concepts relevant to clinical learning environment, and how these can be used to promote a positive learning environment for the nursing students at tertiary. Data were collected quantitatively and qualitatively from the nursing students and the hospital registered nurses by means of a questionnaire with both close and open-ended questions. Quantitative data sought to assess their perceptions with regard to the current clinical learning environment. More importantly, qualitative data was intended to elicit their views with regard to the aspects of the wards that promoted and hindered students’ learning while in clinical practice, and on preferred clinical learning environment. The results of phase 1 informed the achievement of objective no 5.

• Phase two

Objective 5 was achieved in phase two. Objective number 5 sought to develop a model to promote positive clinical learning environment for the nursing students at tertiary. The development of model to promote positive clinical learning environment for the nursing students at tertiary was informed by guidelines triangulated from three sources highly regarded in nursing research for theory construction. They include 1) theory construction guidelines suggested by Chinn and Kramer (2011:176) (see Chapter 6, Section 6.3); 2) strategy for concept analysis suggested by Walker and Avant (2011:160) (see Chapter 5, Section 5.2) and 3) context clarification survey list proposed by Dickoff, James and Wiedenback (1968:422) (see Chapter 6, Section 6.3.2). The guidelines suggested by these researchers were chosen to guide the model development process in this study because they are practice-based and simple to follow. The process of model development was discussed in detail in Chapter 6, Section 6.2.
• Phase three

Objective number 6 entails the evaluation of the model and was achieved in phase three. The model to promote positive clinical learning environment was first evaluated by the researcher using the critical reflection process suggested by Chinn and Kramer (2011:197). Model for positive clinical learning environment was then presented to the experts in model development and the subject lecturers to get an objective evaluation. The developed model was subsequently refined following the evaluators’ recommendations.

3.4.1. Target population and sample

Target population represents all the elements qualifying for the inclusion criteria that the researcher is interested in and again to which the study’s findings can be generalised (Gray et al., 2017:694). These can involve individuals, objects, events, or substances. Polit and Beck (2012:274) describe target population as aggregate set of entities that the researcher might be interested in and would like to generalise. Beside people, the aggregate elements may consist of things that the researcher wants to research or investigate. Since it is not always possible to study the entire population, a subset of the target population, representative of key elements or characteristics that the researcher intends to collect data from has to be chosen. This is referred to as a sample (Polit & Beck, 2012:274).

This study’s target population comprised all second, third and fourth year nursing students at the selected NEI, as well as all the hospital’s registered nurses working in medical and surgical wards; adult and paediatric, outpatient department (OPDs), Operating theatre (OT), emergency department, maternity and intensive care unit (ICU).

3.4.2. Study setting

The research was carried out at an academic public hospital situated in Gauteng, South Africa. The hospital comprised of, medical and surgical wards of adults and
paediatrics; different OPDs; Operating theatre; emergency department, and ICU. At the time the study was conducted, this specific hospital had 1700 beds, including a twenty two critical care beds. SANC requires the students to be appropriately distributed in those wards during their clinical practice in order for them to acquire skills in general nursing science (SANC, 1985:21).

3.4.3. Sample size

The nursing students' sample size was estimated at 176. However, during data collection, the nursing students sample decreased to 166. This was as result of ten (10) spoiled questionnaires. Similar inconsistencies were experienced with the hospital registered nurses during data collection. The response rate was poor as compared to what was initially anticipated. The estimated size for the hospital registered nurses was initially estimated at 72, however, the sample size was found to have dropped to 57 (see Chapter 5). Sample size of both samples is depicted in Table 3.1.

<table>
<thead>
<tr>
<th>SAMPLE</th>
<th>LEVEL</th>
<th>TOTAL</th>
<th>GRAND TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baccalaureate nursing students</td>
<td>BCUR 11</td>
<td>109</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BCUR 111</td>
<td>37</td>
<td></td>
</tr>
</tbody>
</table>
3.4.4. Sampling

Sampling refers to the process of selecting the sample that is representative of the target population for generalisation of results (Gray et al., 2017:691). A convenience sampling approach was employed to select samples from both the nursing students and the Hospital registered nurses from both institutions respectively. The convenience sampling allowed the researcher to choose readily available respondents (Polit & Beck, 2010:309). In quantitative research, the two most key considerations to assess the quality of the sample is through its representativeness and size (Polit & Beck, 2012:275). Samples that are not representative of the target population run the risk of threatening the external validity of the whole study. This might be because of what is known as sampling bias.

The disadvantage with convenience sampling is that the available sample might lack the critical variables targeted in that population (Polit & Beck, 2012:276). In order to counteract that, and for the sample to be representative of the population, all the respondents satisfying the inclusion criteria were approached to participate in this study. The selection process was based on the following specific inclusion and exclusion criteria. In order to be included or excluded in this study, the nursing students and the hospital clinical preceptors had to meet the criteria stipulated in Table 3.2.

<table>
<thead>
<tr>
<th>Population</th>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCUR 1V</td>
<td>72</td>
<td>72</td>
</tr>
<tr>
<td>Hospital registered nurses</td>
<td>36 wards × two</td>
<td>72</td>
</tr>
</tbody>
</table>
| Nursing students | • Be the second to fourth year nursing student registered for a four-year Bachelor degree at the selected NEI  
  
  • Have been placed in one of the following hospital wards: medical and surgical, both adult and paediatric, OT, OPD, ICU and A&E unit prior data collection period.  
  
  • Give consent to participate in the study | • All the first year nursing students registered for a four-year Bachelor degree at the selected NEI because they had limited clinical exposure period. |
|------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Hospital registered nurse | • Be a registered nurse.  
  
  • Be working in one of the above-mentioned wards at the hospital.  
  
  • Be a registered nurse with more than 2 years of experience in nursing. | • Categories of nurses who are not registered nurses.  
  
  • Registered nurses less than 2 years of experience in nursing. |

3.4.5. Data collection

Data were collected after ethical clearance was granted by the Sefako Makgatho Health Science University Research committee (SMUREC) (Annexure A) and the hospital authorities of where the study was conducted (Annexure B). Data were collected from both the nursing students and the hospital registered nurses by means of questionnaires (Annexure D and E). Both the quantitative and qualitative data were collected concurrently from the same structured questionnaire having with both close and open-ended questions. The questionnaires for both study’s respondents were divided into three sections, Section A, B and C. Section A was for biographical data; Section B comprised close-ended questions for quantitative data, and Section C had three structured open-ended questions from which qualitative data was collected. Polit and Beck (2012:294) point out that data collection is the most costly and time consuming part of the study that every researcher will be faced
with during the period of their studies. As such, selection of the data collection method should be cautiously done. This should be based on the factors such as, relevance of the chosen data collection method or instrument as well cost constraints in terms of human and financial resources (Polit & Beck, 2012:293).

3.4.5.1. Data collection instruments

The researcher did not develop new questionnaires, but adapted already existing questionnaires. The instruments used by Nash (2007:69) in Australia to assess the undergraduate nursing students and the registered nurses’ perceptions of the clinical learning environment were used as data collection instruments in this study. Permission to adapt the data collection instrument for this study was granted through an email by the same researcher (Annexure F). Nash’s questionnaire is known as: Quality of Practice Environment scale (QPE) (Nash, 2007:69). The researcher found the QPE appropriate and relevant to be used as a data collection instrument for this study due to the similarities of the research objectives. Polit and Beck (2012:295) maintain that when deciding on the type of measure to use, it is always advisable to use an already existing instrument as long as the instrument corresponds to the conceptual definitions of the researcher’s current study. Over and above that, it will be a bonus if the instrument is also a standardised instrument indicating norms for a specified population (Polit & Beck, 2012:2915).

The discussion on the background on the origin and the modification process of the QPE questionnaire used as data collection instrument in this study is next presented.

3.4.5.2. Origin of the questionnaires

The QPE questionnaire originates from the CLE Scale (CLES) developed by Dunn and Burnett in 1995 to assess factors in the CLE influencing student learning outcomes (Nash, 2007:68). CLES is a 23-item instrument divided into five dimensions, namely: staff-student relationships, nurse manager commitment, patient relationships, interpersonal relationships, and student satisfaction (Dunn & Burnett,
1995:4). Nash adapted CLES in her study as stated earlier in the text, modified it and termed it Quality of Practice Environments scale.

She used the same questionnaire for both the nursing students and registered nurses, but modified it to make it relevant for the registered nurses’ sample (Nash, 2007:68). The students’ QPE version has 24 items rated on a 5-point Likert scale, ranging from 1—strongly agree, to 5—strongly disagree. It has five subscales namely: staff/students relationship and satisfaction, ward environment, clinical learning opportunities, learning outcomes and nurse manager commitment. The clinical registered nurses’ version of QPE is designed in the same manner with 15 items. The researcher adapted the two questionnaires for this study. Therefore, both questionnaires were not used in their original format, but slightly modified to suit the context of this study.

3.4.5.3. Modification of the questionnaire

The two questionnaires were modified in several ways after permission was granted to adapt the questionnaires. A rigorous literature review was carried out on the studies that have previously used CLES in their investigations. The main purpose was to identify concepts that were relevant to the context of this study in order to modify the QPE questionnaire. In the end, the modified questionnaire came up with four main dimensions of particular relevance to the current study and renamed it to, the CLE assessment questionnaire. The CLE assessment questionnaire consisted of the following subscales: ward atmosphere, clinical learning opportunities, supportive learning environment and communication and feedback. This was done to suit the concepts found in the current model of clinical facilitation employed at the hospital where the study was conducted. Both questionnaires for the nursing students and the hospital registered nurses had the same outlook. The only difference was with regard to the number of items and the phrasing of questions.

The nursing students’ questionnaire had 28 items. The ward environment consisted of nine items; clinical learning opportunities, eleven items; supportive learning environment, namely, four items; lastly, communication with four items. The hospital
registered nurses’ questionnaire on the other hand, has 25 items, which ended to 19 following the results of the pre-test. The ward environment in the hospital registered nurses’ questionnaire had five items; clinical learning opportunities, five items; supportive learning environment, seven items and communication and feedback, three items.

### 3.4.5.4. Structure of the modified questionnaires

The structure of the respective questionnaires for both the nursing students (Annexure D) and hospital registered nurses (Annexure E) of the current consisted of three sections. Sections A of the questionnaire constituted the respondents’ demographic information. Section B contained the survey items about the perceptions of clinical learning environments. Section C consisted of three structured open-ended questions. The first open-ended question requested the respondents’ views with regard to aspects of the ward that promoted the nursing students’ learning while in clinical practice. The second open-ended question was concerned with the respondents’ views on the aspects of the ward that retarded the nursing students’ learning in clinical practice. The third question requested the respondents’ views on their preferred clinical learning environment (Refer to Annexure D and E for clear picture of the sub-sections of the questionnaire).

### 3.4.5.5. Quantitative data

Quantitative data from the nursing students was obtained from section B of the CLE assessment questionnaire (Annexure D). Section B required information from the respondents about their perceptions with regard to the clinical learning environment when they were in clinical practicum and consisted of 29 items. Likert scales were used to quantify the responses using five alternatives ranging from, 1=strongly disagree; 2=disagree; 3=neutral; 4=agree and lastly 5=strongly agree.

The quantitative data collection for the hospital registered nurses was obtained from section B of the CLE assessment questionnaire (Annexure E). The procedure was similar to the nursing students. Section B requiring information from the respondents
about their perceptions with regard to the clinical learning environment when the nursing students were in clinical practicum, consisted of 19 items. Likert scales were also used to quantify the responses using five alternatives ranging from, 1=strongly disagree; 2=disagree; 3=neutral; 4=agree and lastly 5=strongly agree.

3.4.5.6. Qualitative

Qualitative data from the nursing students and the hospital registered nurses was obtained from section C of the same CLE assessment questionnaire (Annexure D and E). Section C of the CLE assessment questionnaire consisted of three open-ended questions requesting the respondents’ views with regard to the following: 1) aspects of the ward that promoted students’ learning; 2) aspects that retarded students' learning and 3) responses with regard to the preferred CLE.

3.4.5.7. Pre-testing of the data collecting instruments

The modified questionnaires were pre-tested with 10 respondents from the nursing students and hospital registered nurses respectively from another hospital before commencing with full-scale data collection process. This was done to clear ambiguous questions, for both close and open-ended, and determine the length of time needed to complete the questionnaires (Polit & Beck, 2012:738).

The quantitative pre-testing results showed the overall reliability co-efficiency of the students’ pre-tested questionnaire to be at .911. This was indicative of the fact that the questionnaire was measuring the variables that it was supposed to measure; as such, it did not need further modification. The response items were left at 28. With regard to the hospital clinical preceptor’s questionnaire, the reliability co-efficiency was below .65, which indicated that it needed further modifications. The statistician recommended the removal of some items to increase the reliability co-efficiency. As a result, the items were initially 25, ended up being 19. The reliability co-efficiency was tested again following that, and found to be satisfactory at .863.
coefficients are the good indicators of an instrument’s quality, with the coefficients of .70 and above considered acceptable (Polit & Beck, 2012:334).

The pre-test qualitative results from the open-ended questions by both the nursing students and the hospital registered nurses, were clear and satisfactory. This was indicative of the fact that the open-ended questions on both questionnaires needed no further modification. The comments were appropriate and seemed from the onset to corroborate quantitative results. Therefore, open-ended questions were left unchanged.

3.4.5.8 Recruitment and data collection procedure

The recruitment of both study respondents took place when the nursing students were on theoretical block following their return from their last clinical placement period of the year. This is usually at the end of September month. Permission was sought from the level 2-4 class lecturers for the researcher to come and address the nursing students while in class, and administer the questionnaire. With regard to the hospital registered nurses, the researcher sought permission from hospital nursing managers to come and address the hospital registered nurses in a meeting, and administer the questionnaire to them as well. Accordingly, the researcher distributed the questionnaires personally together with the consent form and a covering letter (Annexure C) to consenting respondents. The covering letter covered information regarding issues pertaining to voluntary participation, measures to ensure confidentiality and anonymity. The researcher collected the completed questionnaire from the respondents (nursing students) after they finished completing them.

The data collection for the hospital registered nurses was a bit challenging owing to work and time constraints. The researcher distributed the questionnaire to the relevant wards with a consent form and a covering letter (Annexure C), and promised to collect the completed questionnaires after one week. This was done in order to avoid pressuring them owing to reasons alluded above. The researcher
followed them up after one week. Only 50% was collected. Another follow-up was done after another week. This time, only 25% was collected, all amounting to 75% response rate. The researcher locked up the completed questionnaires from both respondents in a safe place until data were analysed with the help of the statistician from the University.

3.4.6. Data analysis

Data analysis of both the quantitative and qualitative data was done simultaneously according to the triangulation method of mixed model research (Zohrabi, 2013:254). Quantitative data was analysed by means of IBM SPSS statistics version 22 and the qualitative data was analysed thematically. The analysis of both quantitative and qualitative data follows:

3.4.6.1. Quantitative data analysis

Quantitative data from closed-ended questions were analysed using both descriptive and inferential statistics. Demographic characteristics of both the nursing students and the hospital registered nurses were summarised descriptively. Both survey questionnaires for the nursing students and the hospital registered nurses contained some matching statements regarding the CLE. Basic statistics such as sample size, mean, standard deviation, median, interquartile range, minimum and maximum values were calculated for each study group.

The mean and median values were compared by the t-test and Wilcoxon rank sum test respectively. Results were summarised in tables and graphs. All statistical procedures were performed on SAS, Release 9.3 or IBM SPSS statistics 22, running under Microsoft Windows for a personal computer. Statistical significance testing was at the 0.05 (5%) level. The concepts obtained from the analysed data were used for model development (see Chapter 6).

3.4.6.2. Analysis of open ended responses (Qualitative)
Responses to open-ended questions were coded, categorised thematically and summarised descriptively (Morse & Niehaus, 2009:127). Analysis of the responses from open-ended questions usually uses the methods generally developed to analyse qualitative data (Cerritos College, n.d:1; Zohrabi, 2013:254). Careful analysis of the open-ended responses enables the researcher to identify patterns and trends from which certain conclusions could be drawn. The responses to the open-ended questions in this study were analysed using the six (06) thematic analysis steps recommended by Zhang (2012:4) depicted in Figure 4.2. The description of the steps in thematic analysis as applied in this study follows:

- **Careful reading**

According to Zhang (2012:5) and Cerritos College (n.d: 1), careful reading helps the researcher to identify emerging themes. In this study, the researcher together with the co-coder who is an expert in qualitative data analysis read the text responses several times. This exercise was done in order to identify and classify the emerging themes into the already established CLE assessment questionnaire subscales, in case similar patterns were observed.
• **Unitisation**

Unitisation involves breaking the responses into units or meanings. The units can be in the form of one word, a single sentence or several sentences. Unitisation will ensure that descriptive data is separated from each other, allowing for easy categorisation. In this study, the respondents’ answers were broken down into single sentences, and ultimately analysing the sentences to formulate a single concept. The researcher found analysis of the responses not problematic, since the emanating concepts were similar to the dimensions in the CLE assessment questionnaire.

• **Categorisation**

Categorisation is a strategy whereby each response is assigned to one category. The responses from the nursing students and the hospital registered nurses were each categorised separately. The responses were categorised according to the already established categories in the questionnaire since they held similar meanings.

• **Coding**

In this study, generated categories of responses were labelled with codes and put on an Excel spreadsheet. Every coded response was put on its Excel spreadsheet with corresponding codes. The researcher and the co-coder rechecked the codes several times to ensure reproducibility (Zhang, 2012:5).

• **Patterns and trends**

The codes on the Excel spreadsheet were calculated using the computer program to determine their frequencies. This resulted in the easy identification of patterns and the emerged themes.

• **Reporting of the results**
The themes were summarised in tables with their corresponding coding responses for easy interpretation. The findings were also discussed descriptively, confirmed with extracts from the responses. For analysed qualitative data, see Chapter 4, Section 4.3.6.

3.5. RIGOUR

It is important that quality of a research project is evaluated and ensured, especially if the findings are to be used for practice improvement and incorporated into delivery of care (Noble & Smith, 2015:34). A research is said to be rigorous if the appropriate research tools are appropriately applied to meet the stated objectives. Different research approaches employ different strategies to ensure research rigour or credibility owing to the difference in paradigmatic and philosophical orientation (Anney, 2014:272).

Quantitative research uses strategies such as validity, objectivity and reliability to ensure rigour or trustworthiness of the research process. In contrast, qualitative research uses similar strategies to validity and reliability, though different in terminology in order to ensure trustworthiness of the research study. These strategies include dependability, credibility, transferability, and conformability (Anney, 2014:272).

As already alluded before in the text, this study adopted a mix model research whereby quantitative and qualitative methods were employed to collect data. The CLE assessment questionnaire was used to assess the perceptions of the study’s respondents with regard to the CLE. Zohrabi (2013:258) argues that the quality and acceptability of the research study is largely determined by the quality of the research instruments from which the information to draw conclusions is based. The discussion on the strategies employed to ensure rigour in this study follows:
3.5.1. Validity

The validity of the research instrument is the extent to which that instrument is able to measure the construct it is supposed to measure (Gray et al., 2017:695). The validity of an instrument can be ensured in different ways. In this study, measures to ensure validity of the CLE assessment questionnaire included face validity and content validity. Face validity was ensured by pre-testing of the research instrument (Polit & Beck, 2012:336). Conversely, content validity was ensured by presenting the CLE assessment questionnaire to the clinical experts as well as theoretical lectures to determine the comprehensiveness of the data collecting instruments. The use of methodological triangulation also ensured validity of the instrument (Hussein, 2009:5).

3.5.2. Reliability

The reliability of an instrument reflects consistency of which the attributes or concepts was measured. Polit and Beck (2012:331) postulate that the reliability of a data collection instrument in quantitative research is a major determinant of quality of that instrument. An instrument is considered reliable if it is consistent with what it is supposed to measure (Polit & Beck, 2012:331). The standard measurement of reliability is expressed as coefficient, with 0.80 or above indicating a strong reliability (Gray et al., 2017:370). The Quality of Practice Environment (QPE) questionnaire’s reliability and its co-efficiencies ranged from .85 to .63 (Nash, 2007:68). Accordingly, the co-efficiencies of the CLE assessment questionnaires used in this study were both satisfactory, with the nursing students’ >.90 and the hospital registered nurses >.80.

3.5.3. Trustworthiness of qualitative data

The qualitative data in this study was obtained through three structured open-ended questions included in the CLE assessment questionnaire. Several strategies can be applied to ensure trustworthiness of the qualitative data obtained from text information (Morse, Barrett & Mayan 2002:1 in Noble & Smith, 2015:34). The
strategies applicable to this study include, “including rich and thick verbatim description of participants’ accounts to support findings” (Anney, 2014:276). In this study, the themes emanating from the analysed qualitative data were corroborated by extracts from the respondents’ written responses of which some were reported verbatim.

The strategy of including the respondents’ description of accounts also addressed the concern of neutrality which is another form of ensuring trustworthiness in qualitative data (Anney, 2014:276). Neutrality requires that the participants’ description of accounts is mentioned so that it can be established that the information provided was not concocted by the researcher influenced by bias, interest or motivation (Anney, 2014:276). The other strategy to ensure trustworthiness of the findings involves data triangulation. Methodological triangulation in this study was employed by the mixing of quantitative and qualitative data collection method. This ensured that the comprehensive and complementary findings are produced (Hussein, 2009:4).

### 3.6. BIAS

Bias refers to any influence or action that can distort study findings from what is expected (Gray et al., 2017:672). According to Polit and Beck (2012:720), bias refers to any influence that threatens the validity of the results of the study and renders them invalid. Bias can be as a result of factors such as: the researchers’ subjectivity, faulty data collection methods, as well as an inadequate sample (Polit & Beck, 2012:176). As such, measures to prevent any type of bias should be maintained.

In this study, researchers’ subjectivity bias was prevented by allowing the questionnaires for both the nursing students and the hospital registered nurses to be self-administered. Moreover, data were also collected at the end of the nursing students’ clinical placement to minimise subject bias and faulty data collection methods. Sampling bias was minimised by the selection of all the target population.
In addition, participants were advised not to coerce during completion of questionnaires, as this would contaminate data.

3.7. ETHICAL CONSIDERATIONS

Ethical standards are necessary to direct the research and safeguard the rights of the study participants (Polit & Beck, 2012:150). Outlined below is how the ethical requirements set out by the Sefako Makgatho Health Sciences University Research Ethics Committee were adhered to in this study prior to data collection.

3.7.1. Institutional approval to conduct the study

This study was commenced after institutional approval to conduct the study was granted by the SMU Research Ethics Committee (SMUREC), the management of the hospital where the study was conducted, as well as the HOD of Nursing Science Department of the SMU.

3.7.2. Respect for human dignity

According to Polit and Beck (2012:154), study participants have rights to full disclosure. What this principle implies is that human beings should be treated as autonomous agents capable of taking their own decisions. They should participate willingly in a study, ask questions and withdraw from the study at any time without fear of adverse consequences. In this study, the respondents were informed in the covering letter about the purpose of the study, the procedure to be followed and their autonomous rights as respondents. More importantly, the respondents were assured that they were under no obligation to participate in the study and that they were allowed to withdraw from the study at any time without prejudice.

3.7.3. Informed consent
Polit and Beck (2012:156) maintain that consent is an indication that the research subjects have agreed to take part in the study. Informed consent involves disclosing of study information to the respondents; their interpretation and understanding of this information, lastly, and giving of their consent competently (Polit & Beck, 2012:157). In this study, informed consent was sought from the respondents after being informed about the aim and the significance of the study.

3.7.4. Right to privacy

The right to privacy is concerned with holding the study participants’ information to strictest confidentiality. The right to privacy entails safeguarding the participants’ data either through anonymity or through confidentiality (Polit & Beck, 2012:156). The right to privacy was ensured by addressing the principles of anonymity and confidentiality. Confidentiality in this study was ensured by keeping the completed questionnaires in a safe place until they were sent to the statistician for data analysis.

3.7.5. Principle of beneficence

Polit and Beck (2012:152) maintain that the principle of beneficence is one of the most fundamental ethical principles in research. This principle imposes a duty on the researchers not to expose the study respondents to any harm. Quantitative research is mostly associated with experiments conducted in laboratories and exposing participants to treatment (Polit & Beck, 2012:257). Therefore, this study was not regarded as harmful to the respondents in any way as this was a non-experimental study. The respondents were assured that their decision to participate or not would not influence any relationship they may have with the researcher or selected NEI at any time.

3.8. CONCLUSION
This chapter outlined the research methodology employed in this study to answer the research questions. A detailed discussion of the research design and methods used was alluded to. The next chapter presents data analysis, findings and discussion of this study.

CHAPTER 4
DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1. INTRODUCTION

The previous chapter presented the research methodology employed in this study. This chapter presents the findings from phase 1 of this study. The description of the approach used for data analysis and the interpretation of findings of this study is outlined. Data were collected from two groups of respondents consisting of the nursing students (n=166) and the hospital registered nurses (n=57). The data were analysed with the help of a professional statistician using the descriptive and inferential statistics to answer the study objectives number one to four (see Section 4.2).

All statistical procedures were performed on SAS, Release 9.3 or IBM SPSS statistics 22, running under Microsoft Windows for a personal computer. Descriptive statistics, frequencies, percentages (%), means, medians’ standard deviation (SD), as well as ranges were employed to analyse and summarise the responses from CLE assessment questionnaire by both groups of respondents. The findings are presented in tables, pie charts and graphs so that they can be interpreted easily. The presentation of findings are discussed next.

4.2. PRESENTATION OF FINDINGS
This section discusses interpretation of findings from the nursing students with regard to their perceptions of clinical learning environment (Phase 1, research question number 1), followed by the discussions of responses from open-ended question with regard to their views on the preferred clinical learning environment (Phase 1, research question number 2). The subsequent sections discuss responses from the registered nurses in relation to their perceptions of clinical learning environment (Phase 1, research question number 3). This is followed by the discussion of their views regarding their preferred clinical learning environment (Phase 1, research question number 4). The presentation of findings will follow the sequence outlined in Figure 4.1, based on the sections of the research questionnaires for both respondents.

**Figure 4.1: Sequence followed in the presentation of students’ findings**

### 4.3. PRESENTATION OF NURSING STUDENTS’ FINDINGS

The questionnaires were administered to a total number of 176 nursing students. All administered questionnaires were returned, representing a 100% response rate. However, during data capturing, 10 questionnaires were spoiled owing to some...
missing information in the form of blank spaces. The same questionnaires were considered invalid and were excluded. Eventually, 166 questionnaires were found to be valid and were analysed. The discussion of the findings will be according to the sections of the study questionnaires, namely:

- **Section A**: Comprising socio-demographic profile in terms of age, gender and level of study.
- **Section B**: Asking the nursing students about their previous and recent experiences while in the wards (quantitative responses).
- **Section C**: Open-ended questions (qualitative responses).

### 4.3.1. SECTION A: BCUR NURSING STUDENTS ‘DEMOGRAPHIC PROFILE

#### 4.3.1.1. Age

The respondents were requested to select their age in years from the listed age groups. Figure 4.2 represents the age distribution of the sample (n=166). The results of this study indicated that the majority of the respondents were in the age range of 21-25 at 70% (n=116), 22% (n=37) in the age range of 17-20 years and 6% (n=11) in the age range of 26-30 years. The minority number of the respondents were in the age range of 31-40 years at 2% (n=2). The mean age was 20.7 years. This is consistent with SANC (2015) students in training age analysis.
4.3.1.2. Gender

The respondents were mainly females constituting 75% (n=125) of the sample, with males at 25% (n=41). Gender distribution of the nursing students sample is illustrated in Figure 4.3. This was also expected as majority of the nursing students registered with SANC are females (SANC, 2015).

![Figure 4.3: Students’ gender distribution (N=166)](image)

4.3.1.3. Level of study

Figure 4.4 depicts the level of study in the undergraduate nursing degree course. The results showed that the majority of the respondents were in level 2, comprising 66% (n=109) of the study sample. 19% (n=32) of the respondents were in level 3, while 15% (n=25) were in level 4. The reason for the decline in numbers of students as they advance to the next level of study, might be to an observation made by Higgins-Opitz and Tufts (2013:161) that many nursing students perform poorly academically in service modules such as, of physiology. The respondents of this study are exposed to physiology in their second year of study, and many fail to advance to third year. Again in third year, the University statistics have shown that
they perform poorly in pharmacology module, with some failing to advance to fourth year, hence a limited number

Figure 4.4: Students’ level of study (N=166)

4.3.2. SECTION B: NURSING STUDENTS’ PERCEPTIONS ON CLE (QUANTITATIVE RESPONSES)

Section B of the Clinical Learning Environment Assessment Questionnaire presents the major findings of this study pertaining to the perceptions of the nursing students with regard to the clinical learning environment at a tertiary hospital in Gauteng, South Africa. This section of the Clinical Learning Environment Assessment Questionnaire comprised of twenty eight (28) items constituting the characteristics of the clinical learning environment. The Clinical Learning Environment Assessment Questionnaire was adapted from the QPE questionnaire developed by Nash (2007:68) in her study to assess quality of the clinical learning environments. For a detailed discussion on the origin and the modification process of the QPE questionnaire, refer to chapter 3, section 3.4.5.3. The items in the Clinical Learning Environment Assessment Questionnaire were categorised into four main subscales of: ward environment (9 items); clinical learning opportunities (11 items); supportive learning environment (4) and lastly, communication and feedback, comprising of 4 items.
An internal consistency reliability of the whole CLE assessment questionnaire for the nursing students was expressed by Cronbach’s alpha of .83, while that of the four subscales had different values. The internal consistency reliability of each subscale was established by the following Cronbach alpha co-efficiencies: ward environment (.74); clinical learning opportunities (.79); supportive learning environment (.65) and communication and feedback (.39). Warmbrod (2014:34) defines an internal consistency as an estimation of the cohesiveness or inter-relatedness of the responses elicited from the multiple items comprising the Likert scale. The nursing students were requested to select the option that best represented their perceptions with regard to the items in the CLE assessment questionnaire. They were supposed to rate each item on a five-point Likert scale indicating their level of agreement or disagreement against each item. Each item had a five-point Likert scale, with (1) representing strongly disagree; (2) disagree; (3) Neutral; (4) agree and (5) strongly agree.

The method used to analyse the responses from the items according to how they were initially structured in five-point Likert scale was modified per the statistician’s advice. The five options in the Likert scale were collapsed to form two opposite levels with the neutral option remaining in the middle. The options for “strongly disagree” and “disagree” were merged to form the disagree level. The same was done with the option of “strongly agree” and “agree” to form the “agree level”. The rationale behind this exercise was to allow for easy interpretation and presentation of results.

The nursing students’ level of agreement with the items in the CLE assessment questionnaire were determined by the items’ percentages and mean scores. Higher scores above 50% reflected better perceptions of positive clinical learning environment, i.e. the higher the percentages and the mean score, the higher the level of agreement and vice versa. The discussions on the perceptions of the clinical learning environment will first start by outlining the overall perceptions of the nursing
students regarding their clinical learning environment. This will be followed by the presentation of the more detailed breakdown of the analysed data.

4.3.2.1. Percentages, means and standard deviations of all scale items

The percentages, means and standard deviations of both the positive and negative responses of all the 28 items were calculated in order to assess status of the clinical learning environment as perceived by the nursing students (see Table 4.1). Almost all of the assessed 28 items had low to moderate mean scores, and percentages below fifty (<50%). Only three out of the 28 items had a mean score of ≥2.50. According to the results of this study, the highest agreement mean score (M=2.63) was of the item “the exposure to the wards have helped me to further develop my communication skills. The item with the lowest agreement mean score (M=1.53) was of the item “I felt comfortable to take part in the discussions during staff meeting.” The implication of a score below fifty percent (<50%) in this study is that the nursing students’ perceptions of the clinical learning environments are regarded as negative.

The percentages, means and standard deviations of the CLE items are tabulated in Table 4.1.
Table 4.1: Percentages, means and standard deviations of the CLE items

<table>
<thead>
<tr>
<th>NO</th>
<th>ITEM</th>
<th>DISAGREE</th>
<th>NEUTRAL</th>
<th>AGREE</th>
<th>MEAN</th>
<th>SD</th>
<th>CRONBACH H</th>
<th>ALPHA (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I was adequately orientated to the ward</td>
<td>13% (21)</td>
<td>24 (39)</td>
<td>63 (106)</td>
<td>2.51</td>
<td>.711</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>All staff members in the ward, from unit manager to the student nurse, felt part of the nursing team</td>
<td>21 (35)</td>
<td>42 (69)</td>
<td>37 (62)</td>
<td>2.16</td>
<td>.748</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>In general, the ward staff helped nursing students to gain widest possible learning experiences</td>
<td>24 (39)</td>
<td>39 (65)</td>
<td>37 (62)</td>
<td>2.14</td>
<td>.767</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>The preceptor/registered nurse puts a lot of effort into teaching nursing students</td>
<td>29 (47)</td>
<td>34 (57)</td>
<td>37 (62)</td>
<td>2.09</td>
<td>.809</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>The wards provided adequate opportunities to apply knowledge gained in the class room into practice</td>
<td>26 (43)</td>
<td>40 (67)</td>
<td>34 (56)</td>
<td>2.07</td>
<td>.770</td>
<td>.82</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>My responsibilities as a student nurse were clearly communicated</td>
<td>19 (32)</td>
<td>32 (53)</td>
<td>49 (81)</td>
<td>2.31</td>
<td>.772</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>The preceptor/registered nurse was available to answer questions and provide assistance</td>
<td>49 (81)</td>
<td>34 (56)</td>
<td>17 (29)</td>
<td>1.54</td>
<td>.754</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>In general, the atmosphere in the wards motivated students to do their best</td>
<td>40 (66)</td>
<td>37 (62)</td>
<td>23 (38)</td>
<td>1.83</td>
<td>.776</td>
<td>.82</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Student nurses were delegated duties according to their learning needs</td>
<td>35 (58)</td>
<td>25 (41)</td>
<td>40 (67)</td>
<td>2.05</td>
<td>.869</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>It was always easy in the wards to know what the ward staff expected from students</td>
<td>50 (82)</td>
<td>28 (46)</td>
<td>22 (38)</td>
<td>2.26</td>
<td>.817</td>
<td>.84</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>My time/experience in the wards made me more eager to become a registered nurse</td>
<td>25 (42)</td>
<td>30 (49)</td>
<td>45 (75)</td>
<td>2.20</td>
<td>.82</td>
<td>.82</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>The preceptors/registered nurses were positive to teaching nursing students</td>
<td>19 (32)</td>
<td>48 (79)</td>
<td>33 (55)</td>
<td>2.14</td>
<td>.715</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>I was allowed to perform nursing care at the level of my training</td>
<td>18 (30)</td>
<td>34 (56)</td>
<td>48 (80)</td>
<td>2.30</td>
<td>.759</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Student nurses were regarded as workers rather than learners</td>
<td>24 (40)</td>
<td>16 (27)</td>
<td>60 (99)</td>
<td>2.36</td>
<td>.846</td>
<td>.85</td>
<td></td>
</tr>
</tbody>
</table>
Table 4.1: Percentages, means and standard deviations of the CLE items (continued)

<table>
<thead>
<tr>
<th>NO</th>
<th>ITEM</th>
<th>DISAGREE</th>
<th>NEUTRAL</th>
<th>AGREE</th>
<th>MEAN</th>
<th>SD</th>
<th>CRONBACH ALPHA (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>I looked forward to going to work during my clinical placement in the hospital</td>
<td>34 (56)</td>
<td>24 (40)</td>
<td>42 (70)</td>
<td>2.08</td>
<td>.869</td>
<td>.82</td>
</tr>
<tr>
<td>16</td>
<td>The exposure to the wards have helped me to further develop my problem solving skills</td>
<td>13 (22)</td>
<td>24 (39)</td>
<td>63 (105)</td>
<td>2.50</td>
<td>.720</td>
<td>.83</td>
</tr>
<tr>
<td>17</td>
<td>The ward staff were generally eager to supervise students</td>
<td>34 (57)</td>
<td>35 (57)</td>
<td>31 (52)</td>
<td>1.97</td>
<td>.812</td>
<td>.83</td>
</tr>
<tr>
<td>18</td>
<td>The ward staff commented me on my performance</td>
<td>32 (53)</td>
<td>26 (43)</td>
<td>42 (70)</td>
<td>2.10</td>
<td>.857</td>
<td>.83</td>
</tr>
<tr>
<td>19</td>
<td>The exposure to the wards have helped me to further develop my communication skills</td>
<td>7 (12)</td>
<td>23 (38)</td>
<td>70 (116)</td>
<td>2.63</td>
<td>.617</td>
<td>.83</td>
</tr>
<tr>
<td>20</td>
<td>I was given a chance to pursue my learning objectives</td>
<td>25 (42)</td>
<td>27 (44)</td>
<td>48 (80)</td>
<td>2.23</td>
<td>.83</td>
<td>.82</td>
</tr>
<tr>
<td>21</td>
<td>The staff were approachable</td>
<td>20 (33)</td>
<td>47 (78)</td>
<td>33 (55)</td>
<td>2.13</td>
<td>.718</td>
<td>.83</td>
</tr>
<tr>
<td>22</td>
<td>I felt comfortable to take part in the discussions during staff meetings</td>
<td>63 (105)</td>
<td>21 (34)</td>
<td>16 (27)</td>
<td>1.53</td>
<td>.760</td>
<td>.83</td>
</tr>
<tr>
<td>23</td>
<td>There was a wide range of learning opportunities available in the wards</td>
<td>20 (33)</td>
<td>33 (55)</td>
<td>47 (78)</td>
<td>2.27</td>
<td>.773</td>
<td>.83</td>
</tr>
<tr>
<td>24</td>
<td>The nursing staff provided me with constructive feedback about my general performance in the ward</td>
<td>48 (79)</td>
<td>27 (45)</td>
<td>25 (42)</td>
<td>1.78</td>
<td>.828</td>
<td>.82</td>
</tr>
<tr>
<td>25</td>
<td>Material resources, equipment and supplies needed to provide patient care and teaching were available in the wards</td>
<td>31 (51)</td>
<td>37 (62)</td>
<td>32 (53)</td>
<td>2.01</td>
<td>.796</td>
<td>.829</td>
</tr>
<tr>
<td>26</td>
<td>The student to registered nurses ratio in the wards provided for adequate clinical supervision</td>
<td>36 (59)</td>
<td>41 (68)</td>
<td>23 (39)</td>
<td>1.88</td>
<td>.761</td>
<td>.84</td>
</tr>
<tr>
<td>27</td>
<td>The wards can be generally regarded as positive learning environments</td>
<td>45 (75)</td>
<td>35 (58)</td>
<td>20 (33)</td>
<td>2.25</td>
<td>.768</td>
<td>.82</td>
</tr>
<tr>
<td>28</td>
<td>The time allocated for clinical practical was adequate for me to achieve my learning objectives</td>
<td>49 (82)</td>
<td>21 (34)</td>
<td>30 (50)</td>
<td>1.81</td>
<td>.873</td>
<td>.83</td>
</tr>
</tbody>
</table>
4.3.2.2. Nursing students’ overall perception of CLE

Clinical learning environments constitutes the first point of entry for nursing students into the profession. Therefore, it is of utmost importance to ensure that the students are provided with quality clinical experiences that will see to the realisation of their learning objectives. This will subsequently lead to the achievement of successful learning outcomes. The nursing students’ overall perception of their clinical learning environment are presented in Figure 4.5 below. Forty two percent (42% [n=70]) of the respondents agreed positively with the characteristics of the clinical learning environment, while 27% (n=45) had negative responses. Thirty one percent (31% [n=51]) of the respondents were neutral. The findings in Figure 4.5 show that the nursing students considered their clinical learning environment generally negative.

Figure 4.5: Nursing students’ overall perception of CLE (N=166)

4.3.2.3. Nursing students’ perception of ward environment

Figure 4.6 represents the perceptions of the nursing students with regard to the subscale of ward environment. Forty two percent (42% [n=70]) of the respondents with a mean score of (M=3.29), agreed positively with the items in the ward environment, while twenty eight (28% [n=46]) had negative responses. Thirty percent
(30% [n=50]) of the respondents were neutral. The ward environment subscale assesses the students’ perception of learning climate in the ward. It covers issues such as orientation, participation in care, team work and general atmosphere in the ward. The items comprising this subscale are nine, same depicted in Table 4.2:

Table 4.2: Ward environment subscale and items

<table>
<thead>
<tr>
<th>ITEM</th>
<th>WARD ENVIRONMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I was adequately orientated to the ward</td>
</tr>
<tr>
<td>2.</td>
<td>All staff members in the ward, from unit manager to the student nurse, felt part of the nursing team</td>
</tr>
<tr>
<td>8</td>
<td>In general, the atmosphere in the wards motivated students to do their best</td>
</tr>
<tr>
<td>11</td>
<td>My time/experience in the wards made me more eager to become a registered nurse</td>
</tr>
<tr>
<td>14</td>
<td>Student nurses were regarded as workers rather than learners</td>
</tr>
<tr>
<td>15</td>
<td>I looked forward to going to work during my clinical placement in the hospital</td>
</tr>
<tr>
<td>21</td>
<td>The staff were approachable</td>
</tr>
<tr>
<td>22</td>
<td>I felt comfortable to take part in the discussions during staff meetings</td>
</tr>
<tr>
<td>27</td>
<td>The wards can be generally regarded as suitable for suitable learning environments</td>
</tr>
</tbody>
</table>

The ward environment subscale was the second subscale to be rated positively by the respondents. Two items in the top five agreement response belong in this subscale (see Table 4.8). However, it was disturbing to note that one item with the highest disagreement score and in the top five negative responses, was in the same subscale. Sixty percent (60% [n=100]) of the respondents reported that they did not feel comfortable to take part in the discussions during staff meetings.
4.3.2.4. Nursing students’ perception of clinical learning opportunities subscale

The responses to the perceptions of the nursing students with regard to the subscale of clinical learning opportunities are depicted in Figure 4.7. Forty three percent (43% [n=71]) of the respondents agreed positively with the items in the clinical learning opportunities subscale. Twenty six percent (26% [n=44]) of the respondents disagreed with those items, while 31% (n=51) were seemingly undecided or in between. The items in this subscale were eleven (11) in number. They were related to the perceptions of the baccalaureate nursing students with regard to the availability of/or the creation of clinical learning opportunities to enhance their learning experiences in the ward. The items are tabulated in Table 4.3
### Table 4.3: Clinical learning opportunities subscale and items

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>CLINICAL LEARNING OPPORTUNITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>In general, the ward staff helped nursing students to gain widest possible learning experiences</td>
</tr>
<tr>
<td>5</td>
<td>The wards provided adequate opportunities to apply knowledge gained in the classroom into practice</td>
</tr>
<tr>
<td>20</td>
<td>I was given a chance to pursue my learning objectives</td>
</tr>
<tr>
<td>9</td>
<td>Student nurses were delegated duties according to their learning needs</td>
</tr>
<tr>
<td>13</td>
<td>I was allowed to perform nursing care at the level of my training</td>
</tr>
<tr>
<td>16</td>
<td>The exposure to the wards have helped me to further develop my problem-solving skills</td>
</tr>
<tr>
<td>19</td>
<td>The exposure to the wards have helped me to further develop my communication skills</td>
</tr>
<tr>
<td>23</td>
<td>There was a wide range of learning opportunities available in the wards</td>
</tr>
<tr>
<td>25</td>
<td>Material resources, equipment and supplies needed to provide patient care and teaching were available in the wards</td>
</tr>
<tr>
<td>26</td>
<td>The student to registered nurses ratio in the wards provided for adequate clinical supervision</td>
</tr>
<tr>
<td>28</td>
<td>The time allocated for clinical practical was adequate for me to achieve my learning objectives</td>
</tr>
</tbody>
</table>

The results of this study suggest that the respondents agreed more with the items in the clinical learning opportunities subscale as compared to others (see Figure 4.7). However, the results are not convincing since despite the CLE having more positive responses than the other subscales, it still had a worryingly low percentage of 43% (n=71).
4.3.2.5. Nursing students’ perception of supportive learning environment

The subscale of supportive learning environment explores issues related to the support given to students with regard to clinical teaching and supervision offered by ward staff, especially the registered nurses when in clinical practice. It centres mainly on staff-student relationship. The supportive learning environment subscale is constituted of four items depicted in Table 4.4:

Table 4.4: Supportive learning environment subscale and items

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>SUPPORTIVE LEARNING ENVIRONMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>The preceptor/registered nurse puts a lot of effort into teaching nursing students</td>
</tr>
<tr>
<td>7</td>
<td>The preceptor/registered nurse was available to answer questions and provide assistance</td>
</tr>
<tr>
<td>12</td>
<td>The preceptors/registered nurses were positive to teaching nursing students</td>
</tr>
<tr>
<td>17</td>
<td>The ward staff were generally eager to supervise students</td>
</tr>
</tbody>
</table>
The perceptions of the nursing students with regard to the items in the subscale of supportive learning environment are depicted in Figure 4.8. Thirty eight (38% [n=63]) of the respondents agreed positively with the items in this subscale, 25% (n=42) had negative responses and 37% (n=61) of the respondents were neutral. It can be noted in Figure 4.8 that the respondents scored this subscale very low. It is also worrying to learn that 49% (n=81) of the respondents reported that the registered nurses were not available to answer questions. Again in this subscale, 34% (n=56) of the respondents said that the ward staff was generally not eager to teach them.

![Students: Supportive learning environment](image)

**Figure 4.8: Students’ perception on supportive learning environment (N=166)**

### 4.3.2.6. Nursing students’ perception of communication and feedback

Figure 4.9 presents the perceptions of the nursing students with regard to the subscale of communication and feedback. The results of this study show that 41% (n=68) of the respondents agreed positively with the items in the communication and feedback subscale, with 31% (n=52) in disagreement, and 28% (n=46) of the respondents undecided. Communication and feedback subscale addresses issues pertaining to the manner in which the ward staff generally communicates with the students while in clinical practice. It is also concerned with the manner in which feedback is disseminated to students with regard to their clinical performance. Four (04) survey items constituting communication and feedback subscale are shown in Table 4.5. Similar to the other subscales, the nursing students scored the
communication and feedback subscale very low, indicating their negative perception with clinical learning environment in that regard. Cause for concern in this subscale is that three of the top negative survey items are found in the communication and feedback subscale (see Table 4.5).

Table 4.5: Communication and feedback subscale and items

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>COMMUNICATION AND FEEDBACK</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>My responsibilities as a student nurse were clearly communicated</td>
</tr>
<tr>
<td>10</td>
<td>It was often difficult in the wards to know what the ward staff expected from students</td>
</tr>
<tr>
<td>18</td>
<td>The ward staff commented me on my performance</td>
</tr>
<tr>
<td>24</td>
<td>The nursing staff provided me with constructive feedback about my general performance in the ward</td>
</tr>
</tbody>
</table>

Figure 4.9: Students’ perception on communication and feedback (N=166)
4.3.3. Measures of central tendencies of CLE according to sub-scales

The minimum, maximum, mean and standard deviation of all the four clinical learning environment subscales are illustrated in Table 4.6. Among all the four subscales, the ward environment had the highest agreement responses at a mean score of (M=3.29; SD=0.68); followed by clinical learning opportunities at (M=3.20; SD=.58); supportive learning environment (M=3.15; SD=.67), and lastly, communication and feedback at (M=3.12; SD=.62)

Table 4.6: Measures of central tendency of CLE

<table>
<thead>
<tr>
<th>SUBSCALES</th>
<th>N</th>
<th>MINIMUM</th>
<th>MAXIMUM</th>
<th>MEAN</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>WARD ENVIRONMENT</td>
<td>166</td>
<td>1.67</td>
<td>8.00</td>
<td>3.2911</td>
<td>.67765</td>
</tr>
<tr>
<td>CLINICAL LEARNING OPPORTUNITIES</td>
<td>166</td>
<td>1.73</td>
<td>4.82</td>
<td>3.2090</td>
<td>.58172</td>
</tr>
<tr>
<td>SUPPORTIVE LEARNING ENVIRONMENT</td>
<td>166</td>
<td>1.50</td>
<td>4.75</td>
<td>3.1556</td>
<td>.66506</td>
</tr>
<tr>
<td>COMMUNICATION AND FEEDBACK</td>
<td>166</td>
<td>1.75</td>
<td>4.67</td>
<td>3.1210</td>
<td>.62654</td>
</tr>
</tbody>
</table>

4.3.4. The top five positive (agreement) responses

The top five items that the nursing students agreed with are depicted in Table 4.7. The responses ranged from 70% to 49%. Seventy percent (70% [n=116]) of the nursing students agreed that ‘the exposure to the wards helped them to further develop their communication skills’; 64% (n=106) agreed that ‘they were adequately orientated to the ward”, while the statement: “the exposure to the wards have helped me to further develop my problem solving skills” was rated positively (agreement) by 63% (n=104) of the respondents. The top fourth statement with the agreement response of 60% (n=97) was for: “Student nurses were regarded as workers rather
than learners”, while, “My responsibilities as a student nurse were clearly communicated” had 49% (n=81) positive responses

Table 4.7: The top five positive responses

<table>
<thead>
<tr>
<th>NO</th>
<th>ITEM</th>
<th>AGREE</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The exposure to the wards has helped me to further develop my communication skills.</td>
<td>70%</td>
<td>116</td>
</tr>
<tr>
<td>1</td>
<td>I was adequately orientated ward to the ward.</td>
<td>64%</td>
<td>106</td>
</tr>
<tr>
<td>16</td>
<td>The exposure to the wards has helped me to further develop my problem solving skills.</td>
<td>63%</td>
<td>105</td>
</tr>
<tr>
<td>14</td>
<td>Student nurses were regarded as workers rather than learners.</td>
<td>60%</td>
<td>99</td>
</tr>
<tr>
<td>6</td>
<td>My responsibilities as a student nurse were clearly communicated.</td>
<td>49%</td>
<td>81</td>
</tr>
</tbody>
</table>

4.3.5. The top five negative (disagreement) responses

The top five disagreement responses are shown in Table 4.8. According to the study findings, 60% (n=97) of the respondents reported that ‘they did not feel comfortable to take part in the discussions during staff meetings’; 50% (n=83) said that ‘it was not always easy in the wards to know what the ward staff expected from them’. On the contrary, 49% (n=81) of the respondents disagreed that “the registered nurses were always available to answer questions and provide assistance”; and that “The time allocated for clinical practical was adequate to achieve learning objectives”
respectively. In contrast, 48% (n=80) of the respondents reported that “the nursing staff did not provide them with constructive feedback about their general performance in the ward”.

Table 4.8: The top five negative responses

<table>
<thead>
<tr>
<th>NO</th>
<th>ITEM</th>
<th>DISAGREE PERCENTAGE</th>
<th>NUMBER (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>I felt comfortable to take part in the discussions during staff meetings.</td>
<td>63%</td>
<td>105</td>
</tr>
<tr>
<td>10</td>
<td>It was always easy in the wards to know what the ward staff expected from students.</td>
<td>50%</td>
<td>82</td>
</tr>
<tr>
<td>28</td>
<td>The time allocated for clinical practical was adequate for me to achieve my learning objectives.</td>
<td>49%</td>
<td>81</td>
</tr>
<tr>
<td>24</td>
<td>The nursing staff provided me with constructive feedback about my general performance in the ward.</td>
<td>48%</td>
<td>79</td>
</tr>
</tbody>
</table>

4.3.6. SECTION C: STUDENTS’ QUALITATIVE FINDINGS

Section C of the CLE assessment questionnaire presents the findings from the three structured open-ended questions. The open-ended questions were included herein to elicit the qualitative responses from the nursing students regarding the aspects of the ward that promoted or hindered their learning perceptions of clinical learning environment. The open-ended questions composed of the following three questions:
29. What practices or aspects in the ward made it easy or was helpful to your learning while in clinical practicum?

30. ‘What practices or aspects in the ward retarded or made it difficult for you to learn while in clinical practicum?’

31. ‘What would you prefer or recommend to see happening or being done in the wards in order to improve your CLE?’

The spaces were provided for the nursing students in which to write comments. Responses to open-ended questions were coded and categorised thematically (see Chapter 3, Section 3.4.6.2). As it will be noted in the text and different tables, analysis of the responses in all the three open-ended questions identified themes that confirmed issues identified in the quantitative section. The presentation of the responses will be according to the sequence of the open-ended questions.

### 4.3.6.1. Aspects that promoted clinical learning

| ‘What practices or aspects in the ward made it easy or was helpful to your learning while in clinical practicum?’ |

The discussion herein and to follow is based on the responses elicited from the nursing students with regard to the aspects of the ward that promoted their learning while in clinical practice. The analysis of the comments identified three themes, namely, availability of learning opportunities; supportive learning environment and conducive ward environment. They are summarised in Table 4.9.
Table 4.9: Themes of aspects that promoted learning in clinical practice

<table>
<thead>
<tr>
<th>THEMES</th>
<th>CATEGORIES</th>
<th>FREQUENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Availability of learning opportunities</strong></td>
<td>Participation in care</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Ward rounds</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Variety of conditions</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>In-service education</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Proper delegation</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Self-directed</td>
<td>4</td>
</tr>
<tr>
<td><strong>Supportive staff behaviours</strong></td>
<td>Helpful staff</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>Peer support</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Accommodating students</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Friendly staff</td>
<td>32</td>
</tr>
<tr>
<td><strong>Conducive ward atmosphere</strong></td>
<td>Good communication</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Supervision</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Team work</td>
<td>15</td>
</tr>
</tbody>
</table>

- **Theme 1: Availability of learning opportunities**

With regard to the theme of learning opportunity, 50 nursing students accounted their ability to learn while in clinical practice to participation in care; 20 of them mentioned ward rounds; 10 credited their positive clinical learning experiences to in-service education given in the wards; six cited variety of condition, and lastly, four attributed their clinical learning to being self-directed. These findings are corroborated by the following comments from different baccalaureate nursing students were written verbatim:

“Doctors rounds made my learning easy… I would be delegated to do them, and I learnt much about different conditions in short period of time because everything was explained and questions were answered”. (Respondent 9 - Level 4)
“Nurses rounds and discussing topics/conditions before starting with routine made it easy for me to learn. Other wards do not do that”. (Respondent 44 – Level 2).

“Every morning in ward..., they would do sessions to teach about any condition in the ward…I learnt about hydrocephalus”. (Respondent 13 – Level 3).

“Before starting with the routine, the operational manager gave us in-service training about certain conditions in the ward. We were allocated according to cubicles and delegation changed daily and also permanent staff was rotating, giving us a chance to learn new things from each staff member”. (Respondent 15 – Level 2).

“I learnt a lot in labour ward by participating in patient care. It made me realise how practical nursing is. The nurses explained a procedure, then after, showed me how to do it and then after I was given an opportunity to practice it and ask questions where I do not understand”. (Respondent 11 – Level 4)

• **Theme 2: Supportive staff behaviours**

The nursing students mentioned some actions signifying supportive behaviours from staff members as the ones that made it easy for them to learn while in clinical practice. Sixty of them reported that the staff was helpful; 32 mentioned friendliness and 30 credited their learning to supervision. Seven student nurses said that they were able to learn because the staff accommodated them, while three attributed their clinical learning to peer support. The comments validating these claims are the following:
“Welcoming from the operational manager. The OP was very helpful. The atmosphere in that ward enhanced learning to take place. The OP would sit down with students and teach us with passion and not judging us. Every time she sees us doing a procedure, she would come, supervise, and teach us. It really helped us to learn”. (Respondent 22 – Level 3)

“The ward staff were so welcoming and eager for helping us learn something new each and every day of my whole week I spent there. The doctors were also co-operative, helping us with answers if we asked questions, we never felt as if we were students at all”. (Respondent 33 – Level 2)

“The attitude of the staff was helpful and friendly. Whenever I wanted to ask questions about a procedure which was being done, they answered. I felt free and welcome and they were also willing to explain more in depth’…‘Friendly staff makes it easier for you as a student to become part of the team”. (Respondent 23 – Level 2)

“Having meaningful conversation with patients, interacting with other students from other colleges”. (Respondent 66 – Level 2)

• Theme 3: Conducive ward atmosphere

With regard to the aspects of the ward that promoted their clinical learning under this theme, 13 nursing students mentioned good communication; 15 cited team work; orientation was listed by 14; while proper delegation was stated by 15. The following are the comments from the nursing students reflecting these findings:

“I was fortunate to be allocated in wards that the staff orientated and welcomed us with warm hands. The registered nurses made time for us and
taught us at least twice a week. That broadened our knowledge and equipped us to function efficiently. They were always very kind” Communication amongst staff and students is key to make one feel confident”. (Respondent 22 – Level 4).

“Teamwork that was in the ward,… how everyone was given a chance and encouraged to do his/her work according to scope of practice, giving us all attention, good attitude in teaching and helping us to meet our objectives – for me, those are things that promoted my learning”. (Respondent 13 – Level 4).

“Having the opportunity to be partnered with a registered nurse - it helped us in doing the correct procedure correctly. Also having sisters ask doctors to answer certain questions we might have, it assisted us a lot in learning”. (Respondent 76 – Level 2).

“Availability of equipment… enough staff… presence of different conditions…staff putting effort to teach students…easily approachable”. (Respondent 16 – Level 4).

4.3.6.2. Ward aspects that retarded clinical learning

‘What aspects in the ward made it difficult for you to learn while in clinical practicum?’

With regard to the aspects of the ward that retarded or made it difficult for the nursing students to learn while in clinical practice, four themes were identified. They were: lack of learning opportunities; unsupportive learning environment; non-conducive learning environment and poor communication. Themes of aspects of the ward that hindered students’ learning in clinical practice are tabulated in Table 4.10.
<table>
<thead>
<tr>
<th>THEMES</th>
<th>CATEGORIES</th>
<th>FREQUENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Learning opportunities</td>
<td>Witnessing wrongful nursing practices</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Difficult procedures</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Limited clinical placement period</td>
<td>12</td>
</tr>
<tr>
<td>Unsupportive learning environment</td>
<td>Discrimination</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Unwillingness to teach</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Negative staff attitude</td>
<td>71</td>
</tr>
<tr>
<td>Ineffective learning and supervision</td>
<td>Poor delegation</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Shortage of resources (human &amp;</td>
<td>14</td>
</tr>
</tbody>
</table>

Table 4.10: Themes from aspects that retarded learning in clinical practice
• **Theme 1: Lack of clinical learning opportunities**

Under this theme; 17 nursing students cited difficult procedures; 12 attributed it to witnessing of poor nursing practices; while 6 mentioned limited clinical placement period. The following comments reflect the views of the nursing students’ with regard to the aspects of the ward that retarded their clinical learning under the theme of lack of learning opportunities:

“Limited allocation time…it is because of as much as there was so much to learn, unfortunately there was no enough time”. (Responded 13 – Level 3)

“We were allocated with large number of students from other colleges, so the ward was congested. Also the period we spent there was not enough for us to be competent”. (Respondent 32 – Level 2).

“Seeing ward sisters writing patients’ observations without doing them…staff spending too much time in the tea room, expecting us to do changes and admit patients alone…experiencing the same procedure being done differently from what I was taught at school”. (Respondent 5 – Level 2).
“I was allocated with one of the sisters who was just focusing on getting the job done without teaching me anything. She just wanted to push the routine”. (Respondent 81 – Level 2).

“The sisters expecting us to do difficult procedures on our own without supervision…sisters expect us to know everything because we are university students, even procedures that were not taught us”. (Respondent 21 – Level 2).

**• Theme 2: Unsupportive staff behaviours**

Seventy one of the nursing students attributed the aspect of the ward that retarded their clinical learning to the negative staff attitude; 11 attributed it to the staff who were unwilling to teach them; 19 cited discrimination as a hindrance to their clinical learning. Below are some of the baccalaureate nursing students’ comments representing their views.

“Attitude of some nurses who are unwilling to teach, assist and only criticise everything you do, not being supervised nor orientated, having to work without your understanding your objective in the ward, are some of the factors that hampered my learning. Poor management, nor ordering equipment; poor delegation, negative ATTITUDE towards students and generalising about student behaviour without providing guidance”. (Respondent 19 – Level 4).

“Some mean nurses often discourage me and make me hate nursing with their bad attitude”. (Respondent 26 – Level 2).

“Attitude of the nursing staff, they are not welcoming and mostly insulted us that we are not doing anything as we are used to going at 14:00 to 17:00 in
first year. We were always called by names “students who do not know anything”. (Respondent 29 – Level 2).

“We were discriminated against… the rudeness and hatred we received from the sisters. The nurses showed a lot of dislike and a bad attitude towards BCUR students only, while liking students from other colleges. They allocated us only for changings and ignoring our other objectives in the wards. Unfair treatment makes everything worse”. (Respondent 71 – Level 2).

“I was afraid to ask questions… the part when I needed clarity or wanted to ask questions, especially when I did not understand”. (Respondent 101 – Level 2).

“There are sisters that have bad attitude, they expect you to know everything. If you don’t understand things and ask them questions, they tell you to refer to your text book or how busy they are”. (Respondent 31 – Level 3).

“Staff that are difficult to approach… do not involve students when doing procedures so that the students may learn… Arrogance from staff, trying to prove superiority over students, shouting and instilling fear in students”. (Respondent 7 – Level 3).

**Theme 3: Ineffective learning and supervision**

In relation to the theme of ineffective learning and supervision, majority of the nursing students (59) declared that poor delegation hindered their clinical learning; 22 credited their lack of learning to the lack of supervision; 20 attributed it to overcrowding of students; 14 listed shortage of human and material resources; 14 said ineffective learning was as a result of heavy workload; eight mentioned lack of
orientation; and seven cited the wards staff not recognising student status. It was interesting to note that only one attributed failure to learn in clinical practice to long working hours of a 12-hour shift. The comments representing the nursing students’ views with regard to aspects of the ward contributed to ineffective teaching and learning are the following:

“Poor delegation I must say… The nurses do not care about students, instead of having a time to explain to us about the conditions and diseases, they just allocate us to do same thing every day, e.g. vital signs, changings and intake and output. That’s the only things they usually allocate for us. Again, most of the time students are sent from one ward to another or sent to accompany patients to X-ray. I was hardly allowed to learn according to my objectives even though I had made the sister aware of tasks I have to learn. There is also a very disturbing lack of resources. Proper nursing cannot be practiced… The staff members in the ward sending me up and about, go to laboratory… check for results”. (Respondent 39 – Level 2).

“There is lack of supervision most of the time… I am still learning, so I still need supervision, especially when giving medication. So in ward…, the staff didn’t supervise us and went for tea. We had to figure things out for ourselves… I had a traumatising experience at first year, I was bathing a patient unsupervised, and the patient aspirated. I did not know what to do”. (Respondent 24 – Level 3).

“Changing nappies on a patient who has just got amputated without assistance and supervision. The pain in the patients’ eyes made me feel like I am making the situation worse”. (Respondent 77 – Level 2).
“Overcrowding of students...being allocated in large numbers reduces the chance to learn. If there are more students in the ward, it means less learning”. (Respondent 41 – Level 2).

“Workload, the registered nurses were always busy to answer questions, and they always want to see students working. They shout students if they get you sitting down even if your delegated task is done. They treat us as workers”. (Respondent 101 – Level 2).

“There was too much workload; staff were always busy to teach us. They are few, so instead of focusing on our objectives, we needed to work and help patients...Some OPMs are bossy and controlling. Staff should know that we are there to learn and not to improve or make their working easier”. (Respondent 7 – Level 3).

“Long working hour of 07-19 (12 hours) shift is abnormal for me. I come out of the ward very tired, with my legs painful, which makes me not to concentrate during the last hours”. (Respondent 8 – Level 2).

“There was no orientation about the ward. It was difficult to work as these wards are busy and the staff was not easily approachable’...’it was not easy to get a helping hand”. (Respondent 25 – Level 3)

• Theme 4: Poor communication

The responses to this question emphasised the low agreement level expressed by the respondents in the quantitative section. The negative perception of nursing students with regard to poor communication are reflected in the following comments:
“Poor communication was a problem’…dealing with different personalities from nurses… being spoken to in a manner that is demeaning, not treated as equals with other staff members, being bullied by fellow staff or doctors”. (Respondent 14 – Level 4).

“Some staff members have poor communication skills; there is one registered nurse who when you make a mistake she yells and embarrass you in front of staff and patients. That brings a person’s moral and self-esteem down and you will try to avoid the registered nurse when seeing her…. which is not good because she has all the knowledge I need in reaching where she is’…‘Nurses being rude to patients”. (Respondent 5 – Level 2.

4.3.6.3. Preferred aspects for promotion of PCLE

‘What would you prefer or recommend to see happening or being done in order to promote positive clinical learning environments?’

This question requested the nursing students to provide their comments with regard to their preferred clinical learning environment. The nursing students offered several recommendations that in their view would promote positive clinical learning environment. Five themes emerged from the responses. The themes derived from those recommendations are summarised in Table 4.11.

Table 4.11: Themes from preferred CLE
• Theme 1: Optimal clinical learning opportunities

In order to promote positive clinical learning environment with regard to the theme of clinical learning opportunities, 35 nursing students indicated that they would prefer for the time for teaching to be created. Seven preferred for their learning objectives to be made available to the wards before they are placed. However, only few (5) preferred for the clinical placement period to be increased, while four indicated that they would prefer for the working hours to be reduced from 12 hour shift, to a shift with lesser hours. Three nursing students mentioned that they would be happy if Wi-Fi can be installed in the wards so that it can help them to research different and interesting medical conditions they come across when in clinical practice. The following comments reflect the views of the nursing students with regard to the

<table>
<thead>
<tr>
<th>THEMES</th>
<th>CATEGORIES</th>
<th>FREQUENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimal clinical learning opportunities</td>
<td>• Increase clinical placement time</td>
<td>• 5</td>
</tr>
<tr>
<td></td>
<td>• Installation of Wi-Fi</td>
<td>• 3</td>
</tr>
<tr>
<td></td>
<td>• Availability of learning objectives</td>
<td>• 7</td>
</tr>
<tr>
<td></td>
<td>• Reduce working hours</td>
<td>• 4</td>
</tr>
<tr>
<td>Supportive interpersonal relationships</td>
<td>• Better working relationship</td>
<td>• 52</td>
</tr>
<tr>
<td></td>
<td>• Accommodating students</td>
<td>• 27</td>
</tr>
<tr>
<td></td>
<td>• Equal treatment</td>
<td>• 15</td>
</tr>
<tr>
<td></td>
<td>• Recognition of student status</td>
<td>• 10</td>
</tr>
<tr>
<td>Warm ward atmosphere</td>
<td>• Team work</td>
<td>• 17</td>
</tr>
<tr>
<td></td>
<td>• Orientation</td>
<td>• 15</td>
</tr>
<tr>
<td>Effective clinical supervision</td>
<td>• Supervision</td>
<td>• 33</td>
</tr>
<tr>
<td></td>
<td>• Proper delegation</td>
<td>• 46</td>
</tr>
<tr>
<td></td>
<td>• Appointment of preceptors</td>
<td>• 18</td>
</tr>
<tr>
<td></td>
<td>• Availability of clinical facilitators</td>
<td>• 7</td>
</tr>
<tr>
<td></td>
<td>• Create time for teaching</td>
<td>• 35</td>
</tr>
<tr>
<td>Proper communication</td>
<td>• Good communication</td>
<td>• 12</td>
</tr>
<tr>
<td></td>
<td>• To be given feedback</td>
<td>• 5</td>
</tr>
</tbody>
</table>
preferred clinical learning environment with regard to optimal clinical learning opportunities:

“Lack of objectives, nurses should know objectives of students for each level, so that they can assist them or provide further teaching …Nurses must be given our learning objectives for proper delegation”. (Respondent 7 – Level 4).

“All the wards must have In-service education and thorough orientation programme”. (Respondent 15 – Level 4).

“The wards must have internet’ when going through the patients’ files and find something difficult, we must google”. (Respondent 24 – Level 3).

“Time should be reduced from 12 hours to at least 9 hours because we are always tired when coming back from the wards and we have to study after work”. (Respondent 146 – Level 2).

“I would like to have more time spent in the wards to gain more knowledge about the conditions we learn in class. The time we are allocated is not enough, if it can be increased”. (Respondent 162 – Level 2).

• Theme 2: Supportive interpersonal relationships

Under this theme, a large number of nursing students (52) preferred to be supported; 27 said they would like for the students to be accommodated in the team; 15 articulated that they would prefer for students’ status to be recognised and stopped being treated as workers; 10 indicated that they would like to be treated equally to students from other colleges. The following comments represent the preferences of the nursing students better with regard to supportive interpersonal relationships:
“The nursing staff should be supportive, approachable, friendly and helpful. The nursing staff need to have an adequate understanding that nursing students from University are not more exposed to the wards as compared to nursing students from college, then we should be treated equally and with respect. Good attitude from nursing staff is all we need and they should be welcoming”. (Respondent 155 – Level 4).

“Positive staff attitude of the staff is the only thing that can promote or improve our learning experiences. Nurses must change their attitude towards students. Nurses in the ward must not treat us like they hate us. They must treat us like part of the team. They must stop being rude to us and drop the stigma that Baccalaureate nursing student students think they are smart and special. We need to be loved and appreciated. Staff should be approachable and friendly”. (Respondent 144 – Level 3).

“To treat all students equally and not compare college student to university students. To stop undermining us and also to be more welcoming and approachable when we are facing challenges.” (Respondent 157 – Level 3).

• **Theme 3: Warm ward atmosphere**

In relation to their preferences regarding aspects of the ward constituting warm ward atmosphere, 17 nursing students said that they preferred the staff to work as a team, 15 indicated that they would like to be orientated in the wards before start working as this will make their life easy.

“As students we need guidance, proper orientation to know how things work, proper delegation, working together of ward staff and clinical facilitators, facilitators to do follow up to ensure student meet their objectives, and not being mistreated by being used as workers, fair and equal treatment. Registered nurses should be reminded that they are educators as well, so that
when you ask them of a certain procedure they should never make comments like ‘I am not your lecturer’. Sisters must understand that we are learners and we still need guidance and encouragement, not to be harsh to us.” (Respondent 132 – Level 4).

- **Theme 4: Effective clinical supervision**

Majority of the nursing students (46) indicated that they would like to be properly delegated, i.e. according to their level of training. Many gave examples that they were in most instances either delegated tasks below their scope of practice, or being delegated same tasks all the time. They mentioned that their learning objectives were not taken into consideration, despite making the sisters aware. Thirty three (33) said they would like to see students being supervised by the registered nurses; 18 preferred for the full time preceptors to be appointed in order to concentrate solely on student teaching; seven mentioned that they would appreciate it if their clinical facilitators can be available more often in the wards so that they can assess their performance while in clinical practice. The above results were identified from the below comments during analysis:

“Sisters should understand that we are students and need proper supervision. They should treat us as students and not as workers. They must also participate and not sit back when we come. They must also correct us politely when we do something wrong, not being rude.” (Respondent 133 – Level 3).

“Every procedure should be done under supervision of A REGISTERED NURSE’... ‘STUDENTS SHOULD ALWAYS BE SUPERVISED, Always delegate a student to work under supervision.” (Respondent 163 – Level 4).

“To have a registered nurse who is responsible for students so that they can learn more while in clinical practice, I wish students were allocated a
registered nurse to help with answers if they had questions, and all were taught and be ready to orientate us in the ward.” (Respondent 44 – Level 2).

“They must increase staff especially registered nurses so that they can aid in teaching and supervising students. Lecturers should come more often to teach students in a clinical area because some nurses don’t want to teach students’…’There should be a policy or rule that forces nurses to teach students.” (Respondent 59 – Level 4).

• Theme 5: Proper communication and feedback

Under the theme of proper communication, 12 nursing students indicated that they would appreciate it if the staff communicated with them in a proper and professional manner. Some gave examples of witnessing unprofessional behaviour and poor communication skills displayed by staff when communicating with students and patients. Five of them said they would prefer to be given timeous feedback on their clinical performance as it would help them to improve on their shortcomings.

“The hospital staff must be taught communication skills and not discriminate between university and college students. Students should be included in meetings so that they can learn.” (Respondent 69 – Level 4).

“Registered nurses should be willing to teach students, student to be given feedback on their performance, registered nurses should avoid reprimanding students in front of patients and staff, it affects their confidence.” (Respondent 6 – Level 4).

“The registered nurses always complain that they do not know when we come hence they do not prepare for us, unlike college students. I would like the university to inform the hospital beforehand so that they prepare for us, in
order for our stay in the ward to be fruitful and worthwhile.” (Respondent 17 – Level 4).

“I would prefer if the nursing staff change their negative attitude towards nursing students, help them and supervise them according to their objectives and most importantly give FEEDBACK. The lecturers must talk to the staff about our objectives and that we are not there to work but to learn. There must be a meeting telling sisters that they must treat students the same, and not show favouritism to others.” (Respondent 139 – Level 4).

4.4. PRESENTATION OF THE REGISTERED NURSES’ FINDINGS

This section outlines the registered nurses’ responses with regard to their perceptions of clinical learning environment (Phase 1, research question number 3). This is followed by the discussions of responses from open-ended question with regard to their views on the preferred clinical learning environment for students (Phase 1, research question number 4). Seventy two questionnaires (72) were administered to the registered nurses. Only 57 questionnaires were returned, indicating a 79% response rate. The presentation of findings will be according to the sections of the study questionnaires, namely:

- Section A, comprising socio-demographic profile in terms of gender, age, clinical experience, and any qualification in nursing education.
- Section B, asking the registered nurses about their perceptions regarding the nursing students’ previous and recent experiences while in their wards (quantitative responses).
- Section C, open-ended questions (qualitative responses).

4.4.1. SECTION A: REGISTERED NURSES’ DEMOGRAPHIC PROFILE
The registered nurses’ demographic data are presented next.

4.4.1.1. Gender

The respondents were mainly females constituting 93% (n=53) of the sample, with males at 7% (n=4). Gender distribution of the registered nurses is represented in Figure 4.10.

![Gender Frequency](image)

**Figure 4.10: Registered nurses’ gender distribution (N=57)**

4.4.1.2. Age

The respondents were requested to select their age in years from the listed age groups. Figure 4.11 represents the age distribution of the sample (n=57). According to the results of this study, the majority of the respondents were in the age range of 31-40 at 91% (n=52), 7% (n=4) in the age range of 26-30 years and 2% (n=1) in the age range of 21-25 years. The mean age was 36 years (see Figure 4.11).
4.4.1.3. Clinical experience

The majority of the respondents at 84% (n=48) had ≥4 years clinical experience. 11% (n=6) of the respondents had three years while 5% (n=3) had ≤2 clinical experience. Clinical experience is depicted in Figure 4.12.

4.4.1.4. Registered nurses' qualification in nursing education

Majority of the registered nurses at 63% (n=36) had no qualification in nursing education, while 37% (n=21) were trained in nursing education. The registered nurses’ qualification in nursing education is illustrated in Figure 4.13 below.
4.4.2. SECTION B: REGISTERED NURSES’ PERCEPTIONS ON CLE (QUANTITATIVE FINDINGS)

The presentation of findings in this section focuses on the responses from the registered nurses with regard to their perceptions of the clinical learning environment at a tertiary hospital in Gauteng, South Africa. Section B of the CLE assessment questionnaire consisted of 19 items comprising the CLE scale. The CLE assessment questionnaire for the registered nurses was adapted from the QPE questionnaire developed by Nash (2007:68) in her study to assess quality of the clinical learning environment. The modification process of the registered nurses QPE questionnaire was discussed lengthily in section 4.9.6.1. Similar to the nursing students’ CLE assessment questionnaire, the 19 items constituting the characteristics of the clinical learning environment in the registered nurses’ CLE assessment questionnaire were categorised into four main subscales of ward environment (5 items); clinical learning opportunities (5 items); supportive learning environment (6 items) and lastly, communication and feedback, comprising three (03) items. The reliability of the whole registered nurses’ CLE assessment questionnaire was expressed by Cronbach’s alpha of (α=.88). The reliability Cronbach alpha co-efficiencies of all the subscales in the registered nurses’ CLE assessment questionnaire were satisfactory or acceptable (Warmbrod, 2014:34). Ward environment had a Cronbach’s alpha of
(α=.70); clinical learning opportunities of (α=.72); supportive learning environment of (α=.83); while subscale of communication and feedback was (α=.74).

The registered nurses were requested to score their perceptions of each item on a five-point Likert scale, from (1) strongly disagree; to (5) strongly agree. However, as reported earlier in the text, the strategy used to simplify the presentation of the results of the nursing students was also employed with the CLE assessment questionnaire for the registered nurses. The options for “strongly disagree” and “disagree” were merged to form the disagree level, with the option of “agree” and “strongly agree” forming the “agree level”. The registered nurses’ level of agreement with the items in the CLE assessment questionnaire was determined by high percentages of above 50. The higher the percentage, the more positive (agreement level) was the response. The reporting on the findings in this section will be based on the format outlined in Figure 4.14.
The registered nurses’ responses to the 19 CLE survey items were analysed using the percentages, means and standard deviations. They are presented in Table 4.12. The highest positive score at 93% was for: ‘Students getting the most out of clinical practice is depended on their commitment’. From all the 19 survey items, both the statements: ‘material resources, equipment and supplies needed to provide patient care and teaching were available in the ward’ and ‘I felt comfortable in teaching of students’ had the least positive response (agreement) of 49% respectively. The results demonstrated that the registered nurses’ agreement level was high in almost all the items in the CLE assessment questionnaire.

Table 4.12: CLE percentages, means and standard deviations

<table>
<thead>
<tr>
<th>NO</th>
<th>ITEM</th>
<th>DISAGREE</th>
<th>NEUTRAL</th>
<th>AGREE</th>
<th>MEAN</th>
<th>SD</th>
<th>CRONBACH ALPHA (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All staff members in the ward, from unit manager to the student nurse, felt part of the nursing team</td>
<td>5 (3)</td>
<td>9 (5)</td>
<td>86 (49)</td>
<td>2.81</td>
<td>.515</td>
<td>.87</td>
</tr>
<tr>
<td>2</td>
<td>In general, the ward staff helped nursing students to gain widest possible learning experiences</td>
<td>7 (4)</td>
<td>4 (2)</td>
<td>89 (51)</td>
<td>2.82</td>
<td>.538</td>
<td>.88</td>
</tr>
<tr>
<td>3</td>
<td>I put a lot of effort into teaching nursing students</td>
<td>4 (2)</td>
<td>5 (3)</td>
<td>91 (52)</td>
<td>2.88</td>
<td>.426</td>
<td>.87</td>
</tr>
<tr>
<td>4</td>
<td>There was a great deal of importance attached to the learning needs of nursing students</td>
<td>9 (5)</td>
<td>11 (6)</td>
<td>80 (46)</td>
<td>2.72</td>
<td>.618</td>
<td>.87</td>
</tr>
<tr>
<td>5</td>
<td>The ward provided students with adequate opportunities to apply knowledge gained in the class room into practice</td>
<td>7 (4)</td>
<td>16 (9)</td>
<td>77 (44)</td>
<td>2.70</td>
<td>.596</td>
<td>.87</td>
</tr>
<tr>
<td>6</td>
<td>It was always easy to know what was</td>
<td>11 (6)</td>
<td>25 (15)</td>
<td>64 (36)</td>
<td>2.55</td>
<td>.686</td>
<td>.88</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>---</td>
<td>-------------------------------------------------------------------------------------------</td>
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<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>7.</td>
<td>I felt adequately prepared and confident to teach students</td>
<td>2 (1)</td>
<td>8 (5)</td>
<td>90 (51)</td>
<td>2.88</td>
<td>.381</td>
<td>.88</td>
</tr>
<tr>
<td>8.</td>
<td>In general, the atmosphere in the ward motivate students to do their best</td>
<td>14 (8)</td>
<td>21 (12)</td>
<td>65 (37)</td>
<td>2.51</td>
<td>.734</td>
<td>.87</td>
</tr>
<tr>
<td>9.</td>
<td>I knew who to consult if I needed help in working with students</td>
<td>16 (9)</td>
<td>12 (7)</td>
<td>72 (41)</td>
<td>2.56</td>
<td>.756</td>
<td>.88</td>
</tr>
<tr>
<td>10.</td>
<td>I enjoy working with students</td>
<td>2 (1)</td>
<td>5 (3)</td>
<td>93 (53)</td>
<td>2.91</td>
<td>.342</td>
<td>.87</td>
</tr>
<tr>
<td>11.</td>
<td>I knew what students needed to do when they were in the ward</td>
<td>5 (3)</td>
<td>11 (7)</td>
<td>82 (47)</td>
<td>2.77</td>
<td>.539</td>
<td>.87</td>
</tr>
<tr>
<td>12.</td>
<td>Working with students is a positive experience</td>
<td>-</td>
<td>12 (7)</td>
<td>88 (50)</td>
<td>2.77</td>
<td>.331</td>
<td>.87</td>
</tr>
<tr>
<td>13.</td>
<td>Students getting the most out of clinical practice is depended on their commitment</td>
<td>-</td>
<td>7 (4)</td>
<td>93 (53)</td>
<td>2.93</td>
<td>.258</td>
<td>.88</td>
</tr>
<tr>
<td>14.</td>
<td>I regard my ward as a good unit for student learning</td>
<td>11 (6)</td>
<td>10 (6)</td>
<td>79 (45)</td>
<td>2.68</td>
<td>.659</td>
<td>.87</td>
</tr>
<tr>
<td>15.</td>
<td>I am conversant with the students’ learning objectives</td>
<td>5 (3)</td>
<td>20 (11)</td>
<td>75 (43)</td>
<td>2.70</td>
<td>.566</td>
<td>.87</td>
</tr>
<tr>
<td>16.</td>
<td>I felt comfortable in teaching of students</td>
<td>14 (8)</td>
<td>37 (21)</td>
<td>49 (28)</td>
<td>2.93</td>
<td>.319</td>
<td>.88</td>
</tr>
<tr>
<td>17.</td>
<td>Material resources, equipment and supplies needed to provide patient care and teaching were available in the ward</td>
<td>14 (8)</td>
<td>37 (21)</td>
<td>49 (28)</td>
<td>2.35</td>
<td>.719</td>
<td>.88</td>
</tr>
<tr>
<td>18.</td>
<td>There was a wide range of learning opportunities available in the ward for students</td>
<td>5 (3)</td>
<td>21 (12)</td>
<td>74 (42)</td>
<td>2.68</td>
<td>.571</td>
<td>.87</td>
</tr>
<tr>
<td>19.</td>
<td>Our ward can be generally regarded suitable for student learning</td>
<td>9 (5)</td>
<td>8 (5)</td>
<td>83 (47)</td>
<td>2.74</td>
<td>.613</td>
<td>.87</td>
</tr>
</tbody>
</table>

### 4.4.2.2. The registered nurses’ overall perception of CLE

Figure 4.15 illustrates the overall agreement and disagreement scores on the perceptions of the registered nurses with regard to the clinical learning environment. As it can be seen in figure 4.15, 80% (n=46) of the respondents agreed positively with the characteristics of the clinical learning environment, 7% (n=4) disagreed, and 13% (n=7) were neutral.
4.4.2.3. The registered nurses’ perception of ward environment

Seventy three percent (73% [n=41]) of the registered nurses agreed with the items in the Clinical Learning Environment Assessment Questionnaire. Only ten percent (10% [n=6]) of them disagreed, whilst 17% (n=10) were neutral. The perceptions of registered nurses with regard to the ward environment subscale are shown in Figure 4.16. The registered nurses’ ward environment subscale comprised of five survey items. In this subscale, 49% (n=28) of the respondents reported that ‘all staff members in the ward, from unit manager to the student nurse, felt part of the nursing team’. Forty nine percent (49% [n=28]) said that ‘the material resources, equipment and supplies needed to provide patient care and teaching were available in the ward’. Sixty five percent (65% [n=37]) of the respondents agreed that ‘In general, the atmosphere in the ward motivate students to do their best’. It was also surprising to note that majority of the respondents at 87% (n=50) felt that ‘their wards can be generally regarded as suitable for student learning’, while in contrast, only 46% (n=26) agreed that ‘there was a great deal of importance attached to the learning needs of nursing students’.
According to the results of this study, the ward environment subscale is the third subscale that the registered nurses rated highly (see Table 4.13). Two survey items constituting the five top negative responses were in the ward atmosphere subscale. Same were: ‘In general, the atmosphere in the ward motivate students to do their best’, by 14% (n=8), and ‘material resources, equipment and supplies needed to provide patient care and teaching were available in the ward’, disagreed upon also by 14% (n=8) of the registered nurses.

Figure 4.16: Registered nurses’ perception on ward environment

4.4.2.4. The registered nurses’ perception of clinical learning opportunities

An overwhelming majority of the registered nurses (79% [n=45]) agreed with the items in the subscale of clinical learning environment. A non-significant number of registered nurses (7% [n=4]) were in disagreement, while 14% (n=8) were in the middle (see Figure 4.17). The clinical learning opportunity subscale was made up of five survey statements. Among the five survey statements, 89% (n=50) of the registered nurses agreed that ‘In general, the ward staff helped nursing students to gain widest possible learning experiences’; 77% (n=44) agreed that ‘the ward
provided students with adequate opportunities to apply knowledge gained in the classroom into practice; 79% (n=45) ‘regarded their wards as good units for student learning; while 74% (n=42) agreed that ‘there was a wide range of learning opportunities available in the ward for students’. On the contrary, 49% (n=28) of the registered nurses said they were ‘conversant with the students’ learning objectives’. Table 4.13 illustrates that the clinical learning opportunities subscale occupy the second place amongst the four subscales, with a mean value of (M=4.04).

![Nurses: Clinical learning opportunities](image)

Figure 4.17: Registered nurses’ perception on clinical learning opportunities

4.4.2.5. The registered nurses’ perception on supportive learning environment

The analysis (Figure 4.18) indicated that majority of the respondents (90% [n=51]) were in agreement with the items in the supportive learning environment subscales, while a mere 2% (n=2) disagreed and 8% (n=4) were undecided. The supportive learning environment subscale had a highest mean score of (M=4.40) amongst all the four subscales. The supportive learning environment subscale constituted of six survey items.

The registered nurses’ level of agreement with all the survey items was high, with three above 90% (n=51) and one above 80% (n=46). Only one survey item was low at 49% (n=28), ‘I felt comfortable in teaching of students’. Of the other survey items,
91% (n=52) of the registered nurses agreed that ‘they put a lot of effort into teaching nursing students; 90% (n=51) said ‘they felt adequately prepared and confident to teach students; 93% (n=53) indicated that ‘they enjoyed working with students’; and that ‘students getting the most out of clinical practice is depended on their commitment’ respectively. An overwhelming majority 88% (n=50) of registered nurses said that ‘working with students is a positive experience’.

Figure 4.18: Registered nurses’ perception on supportive learning environment

4.4.2.6. The registered nurses’ perception on communication

Figure 4.19 illustrates the registered nurses’ level of agreement with the statements in the community and feedback subscale. As it can be seen in Figure 4.19, 68% (n=39) of the registered nurses agreed positively with the characteristics of the communication and feedback subscale; while 13% (n=7) were having opposing views. 19% (n=11) of the registered nurses were in the middle.

The communication and feedback subscale had a low mean score of (M=3.86; SD=.80) as compared to other subscales. Only three survey items constituted this subscale. Majority of the registered nurses at 81% (n=46) agreed that ‘they knew what students needed to do when they were in the ward’; while 72% (n=41) said ‘they
knew who to consult if they needed help in working with students’. Surprisingly, only 36% (n=21) of the registered nurses said that ‘It was always easy to know what was expected of students’, this is despite 81% (n=46) of them claiming to know what the students needed to do when they were in the ward.

Figure 4.19: Registered nurses’ perception on communication and feedback

4.4.2.7. Subscales’ measures of central tendencies of CLE

According to the results of this study, the subscale that the registered nurses agreed more with was of supportive learning environment with a mean score of (M=4.40; SD=.50); followed by clinical learning opportunities (M=4.05; SD=.62). Ward environment was the third subscale with agreement level of (M=3.86; SD=.65), and communication and feedback subscale being on the bottom four, with agreement response of (M=3.86; SD=.80). The mean scores of the four subscales as rated by registered nurses are illustrated in Table 4.13.

Table 4.13: Registered nurses’ sub-scales mean scores

<table>
<thead>
<tr>
<th>SUBSCALES</th>
<th>N</th>
<th>MINIMUM</th>
<th>MAXIMUM</th>
<th>MEAN</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward environment</td>
<td>57</td>
<td>1.80</td>
<td>5.00</td>
<td>3.8596</td>
<td>.64804</td>
</tr>
</tbody>
</table>
Clinical earning opportunities  57  2.00  5.00  4.0491  .62253
Supportive learning environment  57  3.00  5.00  4.4035  .50292
Communication and feedback  57  1.33  5.00  3.8567  .80020

4.4.2.8. The top five positive (agreement) responses

Ninety three percent (93% [n=53]) of the registered nurses were in agreement with the item, ‘Students getting the most out of clinical practice is depended on their commitment’, followed by the statement ‘I enjoy working with students’, with the agreement response of 93% (n=53). The third statement that was agreed upon by 91% (n=52) of the respondents, was: ‘I put a lot of effort into teaching nursing students’. 90% (n=51) of the respondents agreed with the statement: ‘I felt adequately prepared and confident to teach students’, making it the fourth top positive clinical learning environment survey item. The fifth top clinical learning environment survey item, demonstrated by the agreement level of 89% (n=50) of the respondents, was for the statement: ‘In general, the ward staff helped nursing students to gain widest possible learning experiences’. The top five positive responses are illustrated in Table 4.14.

Table 4.14: The top five positive responses

<table>
<thead>
<tr>
<th>NO</th>
<th>ITEM</th>
<th>AGREE PERCENTAGE %</th>
<th>NUMBER (N)</th>
<th>MEAN (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Students’ getting the most out of clinical practice is dependent on their commitment.</td>
<td>93%</td>
<td>53</td>
<td>2.93</td>
</tr>
<tr>
<td>10</td>
<td>I enjoy working with students.</td>
<td>93%</td>
<td>53</td>
<td>2.91</td>
</tr>
<tr>
<td>3</td>
<td>I put a lot of effort into teaching nursing students.</td>
<td>91%</td>
<td>52</td>
<td>2.88</td>
</tr>
</tbody>
</table>
I felt adequately prepared and confident to teach students. 90% 51 2.88

In general, the ward staff helped nursing students to gain widest possible learning experiences. 89% 51 2.82

4.4.2.9. The top five negative (disagreement) responses

The top five disagreement responses are summarised in Table 4.15. Sixteen percent (16% [n=9]) of the respondents disagreed with the statement ‘I knew who to consult if I needed help in working with students’. Fourteen percent (14% [n=8]) of the respondents had negative response (disagreement) with the statement: ‘In general, the atmosphere in the ward motivate students to do their best’. The third top negative response (disagreement) by 14% (n=8) of the respondents was: ‘I felt comfortable in teaching of students’; followed by the top fourth negative response to the statement: ‘Material resources, equipment and supplies needed to provide patient care and teaching were available in the ward’, being disagreed upon by 14% (n=8) of the respondents respectively. The fifth top survey item that had negative response (disagreement) by 11% (n=6) of the respondents was for: ‘it was always easy to know what was expected of students’

Table 4.15: The top five negative responses

<table>
<thead>
<tr>
<th>NO</th>
<th>ITEM</th>
<th>DISAGREEMENT PERCENTAGE %</th>
<th>NUMBER (N)</th>
<th>MEAN (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>I knew who to consult if I needed help in working with students.</td>
<td>16%</td>
<td>9</td>
<td>2.56</td>
</tr>
<tr>
<td>8</td>
<td>In general, the atmosphere in the ward motivate students to do their best.</td>
<td>14%</td>
<td>8</td>
<td>2.51</td>
</tr>
<tr>
<td>16</td>
<td>I felt comfortable in teaching of students.</td>
<td>14%</td>
<td>8</td>
<td>2.93</td>
</tr>
</tbody>
</table>
4.4.3. SECTION C: REGISTERED NURSES’ QUALITATIVE FINDINGS

Section C of the CLE assessment questionnaire presents the registered nurses’ findings from the structured open-ended questions. Akin to the nursing students’ qualitative section, the registered nurses’ qualitative section also comprised three open-ended questions. The first question, number 20, sought the registered nurses’ views regarding the aspects of their wards that promoted students’ learning during their clinical practicum. The second question, number 21 pursued the registered nurses’ views with regard to the aspects of their wards that retarded the students’ learning during their clinical practicum. The last question, number 22 wanted the registered nurses’ suggestions or recommendations to make their wards more conducive or positive for students’ learning. Responses to open-ended questions were coded and categorised thematically. Analysis of qualitative data in all the three open-ended questions raised the same issues discussed in quantitative section. The discussions of the qualitative responses will follow the sequence of the open-ended questions.

4.4.3.1. Aspects that promoted students’ clinical learning

In your view, ‘What aspects of your ward promoted students’ learning during their clinical practicum?’
The registered nurses were requested to respond to the above question by writing their comments on the provided space. Three themes emerged as tabulated in Table 4.16.

<table>
<thead>
<tr>
<th>THEMES</th>
<th>CATEGORIES</th>
<th>FREQUENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning opportunities</td>
<td>Participation in care</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Rounds (nurses and doctors)</td>
<td>23</td>
</tr>
</tbody>
</table>

Table 4.16: Themes from aspects that promoted learning in clinical practice
• Theme 1: Availability of learning opportunities

Analysis of the registered nurses’ comments suggested that the aspects of the ward that promoted students’ learning were related to the following available learning opportunities: nurses and doctors rounds mentioned by 23 registered nurses and participation in care, by 19 registered nurses. Other learning opportunities credited to the promotion of students’ learning in clinical practice were variety of conditions, cited by 16; student commitment, listed by 3 and report taking by 5. The following comments illustrate the views of the registered nurses with regard to learning opportunities:

“Involving them in procedures done in the ward, …Morning ward rounds when doctors and nurses took patients rounds…patients’ conditions are discussed and where students do not understand, doctors and professional nurses will be able to explain further’…report taking daily.” (Respondent 4 – R/N).

“Nursing rounds, hand over during shift changes, doctors rounds, and team meetings with different staff members in the ward. Doing rounds with students – some conditions are further explained and students ask questions.” (Respondent 41 – R/N).
• **Theme 2: Staff supportive actions**

The registered nurses reported actions from the ward staff suggestive of supportive behaviours such as, friendly and helpful staff (16) and supervision (8). The comments validating these views are:

“**Friendly staff and supervision, committed staff who are willing to teach, with students knowing who to consult when they encounter problems. All these helped students to learn more.**” (Respondent 55 – R/N)

“**Good interpersonal relationship amongst students and personnel, giving students enough time to practice and to report their encountered problem. This is to make them confident in their encounter.**” (Respondent 15 – R/N)

“**There is a designated clinical preceptor in the unit who takes all effort to engage in students’ learning, clinical audits, mortality and mobility meetings of which students are part of, on spot teaching.**” (Respondent 41 – R/N)

• **Theme 3: Warm ward atmosphere**

The registered nurses mentioned aspects of the ward that promoted students’ learning in a clinical setting. For example, warm welcome and orientation cited by five registered nurses and an in-service education, indicated by six registered nurses. The registered nurses’ views with regard to theme of warm ward atmosphere are reflected in the following comments:

‘**Warm welcome of students and orientating and introducing them to staff first before taking part in the ward routine’…‘delegation of students done according to learning needs’…‘in-service education and morning briefs/rounds’.**’ (Respondent 12 – R/N)

4.4.3.2. **Ward aspects that retarded students’ clinical learning**

<table>
<thead>
<tr>
<th>In your view, ‘What aspects of your ward retarded students’ learning during their clinical practicum?’</th>
</tr>
</thead>
</table>

The response to this question identified the following three themes (see Table 4.17).
Table 4.17: Themes from aspects retarding students’ learning

- **Theme 1: Non-conducive learning environment**

The aspects of the ward that retarded students’ learning according to 27 registered nurses were related to shortage of resources, both human and material. Twenty two registered nurses mentioned that student learning in clinical practice was hindered by heavy workload; 12 attributed it to the registered nurses not being involved in planning of students’ programmes.

<table>
<thead>
<tr>
<th>THEMES</th>
<th>CATEGORIES</th>
<th>FREQUENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-conducive learning environment</td>
<td>Shortage of resources (human and material)</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Heavy workload</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Lack of space</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Overcrowding of students</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Negative patients’ attitude</td>
<td>2</td>
</tr>
<tr>
<td>Unsupportive learning environment</td>
<td>Negative staff attitude</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Lack of supervision</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Lack of accompaniment by University clinical facilitators</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Uninformed staff</td>
<td>1</td>
</tr>
<tr>
<td>Lack of communication between hospital and University</td>
<td>Lack of communication between ward staff and clinical facilitators</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Lack of learning objectives</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Non-involvement of registered nurses in planning of students’ programmes</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Limited clinical placement period</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Lack of student motivation and commitment</td>
<td>4</td>
</tr>
</tbody>
</table>
planning of student’ programme; while 10 credited it to student overcrowding. Only 2 of the registered nurses mentioned negative staff attitude as an aspect that retard student learning in clinical area. The comments that best represent the registered nurses’ views under this theme are the following:

“Lack of necessary resources for provision of nursing care and shortage of staff lead to increased workload for students and thus inability to perform or meet some of their objectives.” (Respondent 8 – R/N).

“Due to busy wards, it is difficult to sit students down and teach them properly. Emergency wards are unpredictable, so at times interruptions can occur as you are still busy with students. Also demotivation of permanent staff as they socialise the students in a wrong way.” (Respondent 22 – R/N).

“Lack of equipment, shortage of staff and crowded wards, all these make it difficult for students to learn while in clinical practice. Students end up being used as working force.” (Respondent 8 – R/N).

“Overcrowding of patients in the wards makes it impossible for students to learn, because most of the time we focus on provision of nursing care than teaching them.” (Respondent 46 – R/N).

- Theme 2: Unsupportive learning environment

In relation to this theme, two registered nurses identified negative staff attitude as a factor that hindered student learning in clinical practice. Two mentioned lack of accompaniment by clinical facilitators, I attributed it to lack of supervision, while
another one mentioned uninformed staff. The following comments reflected the registered nurses’ views with regard to unsupportive learning environment:

“Shortage of nursing personnel, especially registered nurses, makes it difficult for us to give each student individual attention. In the end, they end up with no guidance and support.” (Respondent 45 – R/N).

“Lack of supervision leads to students to do things on their own. Prof Nurses are always busy with administration work, and leave junior nurses with students of which they cannot answer some of the questions students ask. This can also cause role confusion. Some patients are not willing to be attended to by students because they regard them as strangers and have no confidence in them.” (Respondent 10 – R/N).

- Theme 3: Lack of communication between hospital and university

A new theme not covered in the quantitative section emerged in this section. Several statements from the registered nurses demonstrated their unhappiness towards the university for failing to communicate effectively with them with regard to planning of students matters in the clinical practice. Analysis of the responses revealed that 12 respondents reported that non-involvement of registered nurses in planning of students’ programmes was a hindering factor; 10 respondents attributed it to overcrowding of students; five respondents identified lack of communication between ward staff and clinical facilitators as contributory; five respondents mentioned limited clinical placement period; while four indicated lack of student motivation and commitment as a retarding aspect. The respondents commented as follows:

“The University always sent us many students and they do not learn at the same time. It becomes difficult for the sisters to teach a large group of student in a short period of time as students are not the same and their learning ability differs.” (Respondent 40 – R/N).
“Students who come late after the in-service education had been given in the morning retard their learning. I can say this does not show interest and commitment. Also busyness of the ward sometimes makes it difficult for us to teach them.” (Respondent 47 – R/N).

“There are many students of different institutions at the same time and this make the ward to be crowded and not to be able to control them.” (Respondent 53 – R/N).

“The students’ absenteeism and large numbers of students and sometimes allocated at the same time. Sometimes information seems conflicting between lecturers and ward, to avoid that, the University should communicate directly with us.” (Respondent 23 – R/N).

“The period that the student spend in the unit is too short. When the student is about to grasp what is happening in the unit he or she is moved to another unit or allocation terminated. There is no continuation of learning as learning is interrupted. Because we are not consulted, the right hand does not know what the left hand is doing.” (Respondent 4 – R/N).

4.4.3.3. Preferred aspects for promoting of Positive CLE

‘What would you prefer to see happening or recommend in order to make your ward more positive for students’ learning?"
The above posed question sought to gather the registered nurses’ views with regard to their preferences or recommendations to promote positive CLE. The two themes that emerged from the registered nurses’ responses are illustrated in Table 4.18.

Table 4.18: Themes for preferred to CLE

- **Theme 1: Healthy work environment**

In order to make the CLE positive for the baccalaureate nursing students, majority of

<table>
<thead>
<tr>
<th>THEMES</th>
<th>CATEGORIES</th>
<th>FREQUENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy work environment</td>
<td>• More nursing staff to be employed</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>• Functioning equipment</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>• Manageable number of patients</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>• Manageable number of students</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>• Self-directed students</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>• Appointment of fulltime clinical preceptors</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>• Time for student teaching to be created</td>
<td>3</td>
</tr>
<tr>
<td>Partnership</td>
<td>• Healthy working relationship between hospital and University</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>• Ward staff to be involved when planning student matters</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>• Availability of learning objectives</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>• Proper allocation</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>• Increased accompaniment by clinical facilitators</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>• Increased clinical placement period</td>
<td>7</td>
</tr>
</tbody>
</table>
the registered nurses (24) recommended for more nursing staff to be hired; 22 wanted well-functioning equipment; 14 recommended for manageable number of patients in the wards. Ten registered nurses recommended for the appointment of a fulltime hospital clinical preceptor. Only two registered nurses suggested for the information to be displayed in order to make it accessible to students. With regard to the theme of healthy work environment, the registered nurses’ preferences in that regard are contained in the following comments:

“I would like for more professional nurses to be employed and more proper functioning equipment to be made available. More registered nurses need to be hired so that they can supervise students. Students are left to do work alone most of the time without direct supervision. This creates a problem for them to do other procedures” (Respondent 28 – R/N).

“To make our ward student-friendly; we need more human resources; enough equipment; less crowded wards. The hospital clinical teaching department to must also standardise procedures.” (Respondent 6 – R/N).

“The clinical lecturers should consider minimising the number of students allocated to each ward, so that they can be controlled and be given more attention to each one of them.” (Respondent 38 – R/N).

‘Students to be distributed evenly throughout the year rather than a large number of them at the same time. Open communication between units and lecturers, we need to talk same language with respect to policies, procedures and off duties. Few students to be allocated at a time. Doctors to limit the number of patients’ intake.” (Respondent 43 – R/N).

• **Theme 2: Collaborative partnerships**
A new theme highlighting 19 registered nurses’ wish for working together with the university emerged. Furthermore, seven registered nurses said they would prefer to be involved in the planning of student matters. In addition, 14 called for the admission of manageable number of patients; 13 registered nurses reported that they would prefer to be furnished with the students’ learning objectives; seven said they would like to see increased accompaniment by clinical facilitators and seven wished for the Increment of clinical placement period. These views are validated by the following comments:

“I would like us to have a positive working relationship with tutors from tertiary institutions. Also to be provided with students’ rota, and to be informed of any changes in their roster in time.” (Respondent 23 – R/N).

“There must be good communication between educators and ward management, and wards to be provided with students learning outcomes.” (Respondent 3 – R/N).

“I prefer for the programs to be send before students’ placement. Collaboration meetings to be held periodically, and for the preceptors to be included in the planning phase until evaluation phase.” (Respondent 28 – R/N).

“I would recommend that we get learning outcomes of different stages…their workbooks should be sent to us prior their allocation’…‘Their learning objectives should be clear so that we can help them…’most of the students don’t come with their learning objectives so that we can help them and give more where we can. We just teach them everything we think is relevant.” (Respondent 15 – R/N).
“Much as we would like to help them, the students must also show commitment in their learning and ask questions or demand to be taught in the units, students need to be committed and willing to learn.” (Respondent 42 – R/N).

“Students must show dedication and commitment in the work, they must be self-directed. Students to be encouraged to seek help and to do procedures on their own, under direct or indirect supervision of a professional nurse. If a time was allocated for learning as at times we focus on the ward routine and we forget about students.” (Respondent 56 – R/N).

“Having a clinical facilitator who can take full accountability of students but also to encourage permanent staff to use teachable moments and to socialise the students in the correct way’...’follow-up from lecturers and observation during tasks.” (Respondent 37 – R/N).

“I would prefer to see student spending at least two to one month in a unit to be able to know what is expected of him or her’...’Duration of their stay in the unit should be increased’...’increase practical time for students.” (Respondent 15 – R/N).

“A professional nurse to be delegated on daily basis to look after students and supervise them, especially during the routine time’...’more registered nurses needed to able to accompany students adequately and offer formal teaching if needed.” (Respondent 43 – R/N).
4.5.  COMPARISON OF REGISTERED NURSES AND NURSING STUDENTS’ PERCEPTIONS ON CLE

The reader should note that this is not a comparative study. However, the researcher found it necessary to highlight major statistical differences identified during data analysis. Data from both the registered nurses and the nursing students were compared and analysed using chi-squared test to check if they perceived the characteristics of the CLE differently or the same. If the perceptions between the two found to be different, the test was done to further explore if the difference was statistically significant. Testing was done at the p-value of <0.001. The findings of this study revealed that there was a significant difference of p<0.001 in the overall perceptions of CLE and in all the sub-scales. The findings are presented in Figure 4.20 to 4.24.

4.5.1. Comparison on the overall perception of CLE between R/Ns and nursing students

Figure 4.20 below presents the differences in the overall agreement and disagreement scores on the perceptions of both the registered nurses and the nursing students with regard to the CLE. An overwhelming majority (80%) of the registered nurses were more in agreement with the characteristics of the CLE as opposed to 42% of the nursing students. Similarly, as it would be expected, the disagreement level of the registered nurses is very low (7%) as compared to the nursing students’ disagreement level at 27%. As already mentioned earlier in the text, the findings showed a significant difference of P<0.001 in the overall perception (see Figure 4.20).
4.5.2. Comparison of similar items on perception of CLE between R/Ns and nursing students

The perceptions of the nursing students and the registered nurses were compared with regard to similar items as depicted in Table 4.19. The differences in the perceptions were identified by differences in the percentages. The findings indicate that the nursing students' agreement levels with these items were very low as compared to the registered nurses high agreement levels. What can be deduced from these findings is that the baccalaureate nursing considered their clinical learning environment negative. On the contrary, the registered nurses found the clinical learning environment positive. Surprisingly, both the study respondents seemed to hold the same view when they both agreed less that ‘the material resources, equipment and supplies needed to provide patient care and teaching were available in the ward’. Notably, the registered nurses’ agreement score on the same statement was a bit higher (49%) as compared to the nursing students’ (32%) but still low.
Table 4.19: Comparison between students and registered nurses’ similar questionnaire items

<table>
<thead>
<tr>
<th>NO</th>
<th>ITEM</th>
<th>BCUR STUDENTS %</th>
<th>REGISTERED NURSES %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All staff members in the ward, from unit manager to the student nurse, felt part of the nursing team.</td>
<td>37%</td>
<td>86%</td>
</tr>
<tr>
<td>2</td>
<td>In general, the ward staff helped nursing students to gain widest possible learning experiences.</td>
<td>37%</td>
<td>89%</td>
</tr>
<tr>
<td>3</td>
<td>I put a lot of effort into teaching nursing students.</td>
<td>37%</td>
<td>91%</td>
</tr>
<tr>
<td>5</td>
<td>The ward provided students with adequate opportunities to apply knowledge gained in the class room into practice.</td>
<td>34%</td>
<td>77%</td>
</tr>
<tr>
<td>6</td>
<td>It was always easy to know what was expected of students.</td>
<td>38%</td>
<td>63%</td>
</tr>
<tr>
<td>8</td>
<td>In general, the atmosphere in the ward motivates students to do their best.</td>
<td>23%</td>
<td>65%</td>
</tr>
<tr>
<td>11</td>
<td>I knew what students needed to do when they were in the ward.</td>
<td>49%</td>
<td>81%</td>
</tr>
<tr>
<td>12</td>
<td>Working with students is a positive experience.</td>
<td>33%</td>
<td>88%</td>
</tr>
<tr>
<td>17</td>
<td>Material resources, equipment and supplies needed to provide patient care and teaching were available in the ward.</td>
<td>32%</td>
<td>49%</td>
</tr>
<tr>
<td>18</td>
<td>There was a wide range of learning opportunities available in the ward for students.</td>
<td>47%</td>
<td>74%</td>
</tr>
</tbody>
</table>
4.5.3. Comparison between registered nurses and nursing students’ responses to ward environment items

Majority of the registered nurses (73%) agreed more with the items in the ward environment subscale as compared to the nursing students whose agreement level was on the lowest side at 42%. With regard to the disagreement level, the nursing students had opposing views of 28% as compared to the registered nurses at 10%. There was a significant difference of p<0.001 noted. The findings are illustrated in Figure 4.21.

![Ward environment](image)

**Figure 4.21**: Comparison between students and R/Ns responses to ward environment subscale

4.5.4. Comparison of the registered nurses and nursing students’ responses to clinical learning opportunities items

The level of agreement by the registered nurses with the items in the clinical learning opportunities was more at 79% as opposed to their counterparts at 43%. The findings show further that in contrast, the nursing students disagreed more (26%) with the items in the clinical learning opportunities subscale as compared to the
registered nurses at a meagre 7%. This resulted in the significant difference of p<0.001 (Refer to Figure 4.22).

![Clinical learning opportunities](image)

**Figure 4.22: Comparison between students and R/Ns’ responses to clinical learning opportunities subscale**

### 4.5.5. Comparison between registered nurses and nursing students’ supportive learning environment items

The findings on the comparison of the responses between the registered nurses and the nursing students with regard to the items in the supportive learning environment subscale are depicted in Figure 4.23. An overwhelming majority of the registered nurses (90%) agreed with almost all the items in this subscale. Of concern was that in contrast, only 38% of the nursing students were in agreement. With regard to the disagreement, only 2% of the registered nurses had negative views about the items in this subscale contrary to the nursing students’ more negative views at 25%. The difference in responses under this subscale was significant with a p-value of (p<0.001).
Figure 4.23: Comparison between students and R/Ns’ responses to supportive learning environment subscale

4.5.6. Comparison of the registered nurses and nursing students’ responses to communication and feedback items

The findings show that again in the communication and feedback subscale (Figure 4.24), the registered nurses held more positive views (68% agreement) than the nursing students with an agreement level of 41%. With regard to the disagreement with the items in this subscale, the nursing students are the ones who displayed more negative views in their responses (31% disagreement) when compared to the registered nurses with 13% disagreement level. The difference in the respondents’ responses was statistically quite significant with a p value of (p<0.001).
4.6. DISCUSSIONS OF THE FINDINGS

The previous section outlined the interpretations of the results from quantitative and qualitative responses analysed from data collected from the nursing students and registered nurses. This section discusses the major findings of this study. The discussion of the findings includes the baccalaureate nursing students' quantitative and qualitative responses to the research questions number 1 and 2, as well as their convergence. This will be followed by discussing the registered nurses’ quantitative and qualitative responses to the research questions number 3 and 4. The discussions will follow by outlining the identified differences and similarities between the nursing students and the registered nurses. The chapter will conclude with a brief summary. The discussion will be presented according to the headings of the CLE assessment questionnaires, as well as the identified themes from the open-ended questions.

4.6.1. NURSING STUDENTS’ PERCEPTIONS OF THE CLE

The findings of this study demonstrated that the nursing students considered their CLE generally negative. This undertaking is supported by the low agreement levels of a mean score of below 3 in all of the items in the CLE assessment survey questionnaire. The negative picture reflected in the baccalaureate nursing students’ perceptions of CLE was also evident in the low percentage levels below 50% in all the four sub-scales of: ward environment, clinical learning opportunities; supportive learning environment and communication and feedback. These negative perceptions about the CLE were further confirmed by the issues they felt strongly about and raised in their qualitative responses. The comments were also suggestive of deep seated problems eminent in the CLE, warranting urgent attention.
The findings from quantitative subscales are discussed together with the supporting themes identified from open-ended questions.

4.6.1.1. Ward environment

The findings of this study suggest that the nursing students viewed the wards they were placed in as negative. Only 42% of them agreed with the items in this subsection. It was also disturbing to note that 60% of the nursing students reported that they were regarded as workers, and 63% said that they did not feel comfortable to take part in the discussions during staff meetings. Again, what was a cause for concern in this subscale was the 25% and the 29% of the nursing students who indicated that the experiences in the ward made them to reconsider or were not sure if they wanted to pursue nursing further. Such statements should not be treated lightly, especially considering the shortage of nurses facing the country. The following comments from open-ended questions corroborate these findings:

‘Some mean nurses often discourage me and make me hate nursing with their bad attitude. I do not even know if I still want to be a nurse’.

According to Nasrin et al. (2012:5) the ‘concerns of becoming a nurse’ is a common concern facing the current calibre of nursing students. This is partly because they look up to the qualified staff as their role models. Hence witnessing unprofessional and immoral behaviours from their role models often leads to increased attrition from their training. Another respondent said:

‘Workload… ‘The registered nurses were always busy to answer questions, and they always want to see students working. They shout students if they get you sitting down even if your delegated task is done. They treat us as workers.’

‘I was afraid to ask questions’… the part when I needed clarity or wanted to ask questions, especially when I did not understand’…

The same sentiments were shared by the participants in the study by Ghiyasvandian, Bolourchifard and Yekta (2015:89) whereby students indicated that they did not feel free to participate in discussions or ask question for fear of being
ridiculed by clinical teachers. With regard to aspects of the ward that hindered their learning, the respondents of this study mentioned issues such as heavy workloads, lack of orientation, shortage of staff, lack of supervision, and poor delegation. They were categorised under the theme of non-conducive ward environment.

These findings are in agreement with previous findings from similar studies done in South Africa (Mabuda et al., 2008:22; Rikhotso et al., 2014:3; Martin, 2013:154). According to these researchers, the respondents in their studies also echoed same issues. Furthermore, the students indicated that they were seen as ‘extra pair of hands (Martin, 2013:154). Heavy workload has been found to have a negative impact on the students’ learning as they are unable to pursue their learning needs. Jones (2010) also identified the same findings in her study. The same study reported that staff workloads and students limited working hours were identified as contributing to students’ negative learning experiences. Furthermore, the study revealed that the students were afraid and reluctant to approach staff for help. This was mainly because the staff was most of the time too busy to attend to students.

In South Africa, the non-conducive clinical learning environment have been a cause for concern for nursing education training institutions and the government. This led to clinical education and training to be categorised as priority number one in the strategic priorities of the National Strategic Plan for Nurse Education, Training and Practice (2012:32). Subsequent to that, a model of nursing education and training was developed with the hope of making the clinical learning environment conducive to students’ learning. However, up until the time of data collection, nothing much had happened, except for the appointment of few preceptors, who are also seemingly not coping with large numbers of students.

Conversely, when the respondents in this study were asked in the open-ended questions about the aspects of the ward environment that promoted their clinical learning, they raised and confirmed aspects previously mentioned in the literature regarded as components of a positive ward environment (Nursing Times, 2013:19;
Ali et al., 2015:2; Zakaria & Gheith, 2015:42). They credited aspects of the ward such as proper delegation, orientation, good communication, supervision, teamwork, well-staffed wards and enough equipment to their clinical learning. However, majority of the nursing students indicated that they would prefer most to be properly delegated and supervised.

According to Saarikoski (2002:18), a good ward environment is the most important feature in the students' psychological security. Darcy Associates (2009:20) maintains further that for a ward environment to be considered a positive learning environment, the atmosphere must be welcoming and the student should be well orientated. There must be a feeling among students that they are wanted and valued. The culture within the ward must be the one that tolerates faults and mistakes. Students’ workload must also be optimal. More importantly, the atmosphere in the ward must allow for teamwork, where the student, the ward and the patient are effectively brought together.

Therefore, Nursing Times (2013:19) made an appeal to all the stakeholders to make a concerted effort to improve students' learning in the ward environment so that they are trained to deliver high quality patient care. Improvement of the atmosphere in the ward environment is largely dependent on good teamwork amongst staff members in the ward; positive atmosphere; as well as treating the student nurses as younger colleagues (Kapucu & Bulut, 2011:1152).

4.6.1.2. Clinical learning opportunities

The nursing students’ agreement level with the items in this subscale was relatively high as compared to other subscales. However, the agreement percentage was still below 50%, indicative of low satisfaction with learning opportunities available in the wards. Despite the low agreement level noted in this subscale, there were however two items that were rated highly by the nursing students. Sixty three percent (63%) of the respondents agreed that: ‘The exposure to the wards have helped them to
further develop their problem solving skills’; while 70% reported that ‘the exposure to the wards have helped them to further develop their communication skills’.

Perhaps these above assertions can be attributed to an observation made by the researchers, Brynildsen et al. (2014:726) in their study to explore students’ experiences during clinical placement. The same researchers noted that even though students often complain about the challenges they usually face while in clinical practice, they however find the experience exciting and educational. The experiences somehow help them to reflect more on their performances and knowledge, providing them with increased problem solving skills. In addition, Edgecombe and Bowden (2009:97) noted further that sometimes the students are forced to learn what can be called ‘surviving skill’ of negotiation. Owing to unhelpful behaviours often reported in the wards, the students have to learn to navigate their way around the ward, negotiating with whoever they think can be helpful to them. Therefore, in the process, they learn how to communicate, consequently improving their communication skill. This can be said to be true in the results of this study. The following comment lends support to these observations:

‘There is lack of supervision most of the time’… ‘I am still learning, so I still need supervision, especially when giving medication. So in ward…, the staff didn’t supervise us and went for tea. We had to figure things out for ourselves’.

It was also interesting to note that 49% of the respondents felt unhappy about the length of their clinical placement time. They indicated that the time allocated was not adequate for them to meet their learning objectives. This was supported by the following comment:

‘Limited allocation time…it is because of as much as there was so much to learn, unfortunately there was no enough time’.

The students in studies by Warwire et al. (2014:34) and Thi Hue Thong (2015:77) raised similar concerns about limited practical allocation period. Students complained that they were not afforded enough time to practice in clinical placements.
With regard to the aspects of the ward that contributed positively to their learning, the respondents in this study mentioned aspects such as self-directedness, in-service educations and ward rounds to have contributed positively to their clinical learning. In agreement, Jones (2010:8) postulates that self-directedness and quality mentoring are some of the factors that contribute immensely to students' clinical learning. Similarly, D'Souza et al. (2013) concur that learning opportunities such as participation in care, clinical rounds and in-service education help the students to develop critical thinking skill and knowledge integration. According to Parker and Smith (2012:2), self-directness is a new educational concept in higher education and particularly in nursing education. Self-directed learning allows the students a platform to venture independently into a challenging and dynamic work environment, therefore increasing their confidence.

In relation to factors that hampered their learning opportunities, this study also reflected issues such as overcrowding of students, observing nursing staff forging patients' observation that they did not do, as well as being labelled ‘theory nurses'. The students in a study by Shultz (2011:30) echoed the same sentiments. The students in that study reported that they were often confronted with the dilemma of having to choose to do the procedures differently from what was taught in class. In Martin’s (2013:184) study, the students also reported that they were prejudiced by virtue of coming from the university, with clinical staff perceiving them as ‘theory nurses’ without clinical skills. Truong (2015:77) also identified the issue of allocation of students in large numbers in clinical practice as a major problem impeding clinical learning. The students in that study complained that they were too many in one clinical area, as such, their chance of accessing learning opportunities was significantly reduced.

However, majority of the students indicated that they would prefer for more teaching time to be created in the ward. Others suggested that they would appreciate if their learning objectives were made available to the wards before their placement period so that the in-service programme can be attuned to them. Kaphagawani and Useh (2013:180) highlight that in order for students to learn and become competent in
clinical practice, they must be presented with challenging clinical learning opportunities. This will in turn encourage them to feel free to ask questions, therefore becoming critical thinkers who will be able to make sound clinical judgement when the situation arises.

4.6.1.3. Supportive learning environment

According to Baraz et al. (2015:5), a supportive learning environment is an important and effective factor in student learning in the clinical practice. The findings of this study suggest that the nursing students were not supported. This was evident in the low agreement level (38%) by the respondents. Consistent with quantitative results, analysis of the open-ended question revealed that seventy one (71) of the respondents reported that the ward staff displayed negative attitudes towards them. Majority of the respondents reported that the registered nurses were not available to answer questions and that they were also not eager to supervise them. The nursing students mentioned that they got a feeling that they were not welcome. They claimed that the ward staff was not available to supervise them, instead criticised everything they did. This is a very worrying trend considering the observation made by Ali et al. (2015:2) that the relationship between the ward staff and students is the single most factor pivotal to the promotion of positive learning environments. Kaphagawani and Useh (2013:183) concur that clinical supervision and support are crucial for student learning in clinical practice.

Other studies have reported similar results (Nash, 2007:152; Rahmani et al., 2011:3; Kapucu & Bulut, 2011:1151; Msiska et al., 2014a:38). The findings of those studies revealed that the most negative viewpoint of students about clinical learning environment were in relation to the attitudes of the clinical staff. The students in Msiska et al. (2014a:38) identified themselves to ‘lost sheep’. This was because they felt that they were learning the hard way. They mentioned that they were discriminated against and staff refused openly to help them. In South Africa, the participants in a study by Rikhotso et al. (2014:3) reported that the staff members in some wards were verbally abusive and openly hostile. They claimed that they were
unproductive and lost a sense of belonging as a result. The respondents in the open-ended question section of this study cited similar comments. One example is the following:

‘Attitude of the nursing staff... ‘they are not welcoming and mostly insulted us that we are not doing anything as we are used to going at 14:00 to 17:00 in first year. We were always being called by names “students who do not know anything’.

On the contrary, 61 and 32 respondents reported that helpful and friendly staff enabled their learning while in clinical practice. This is despite the very nursing staff being said to be unhelpful. The same mixed feelings about the negative staff attitude was also reflected in Rikhotso et al. (2014:3). The respondents in their study accused staff members as being ‘joy stealers’, while others appreciated efforts by the staff to help them achieve their learning objectives. Perhaps an explanation that can be advanced to this contradiction is the assertion by one student in Msiska et al. (2014a:38) that sometimes students are to blame for the staff’s negative attitude as they themselves come to the clinical area with preconceived ideas. This view is supported by Leape, Diestag, Mayer, Edgman-Levitan, Meyer, and Healy (2012:2) that nursing students who lack guidance and support from their clinical facilitators, are sometimes disrespectful, and have a tendency of shifting the blame to the ward staff.

However, the respondents articulated that they would appreciate if the staff attitude is improved, as well as being accommodated as part of the team when in practice. The Nursing and Midwifery Board of Ireland (2015:7) maintains that supervision and support of students in the clinical practice entails aspects such as, supervised ward rounds; supervised access to patients’ records; clinical tutorials and conferences; shadowing; as well as supported participation in nursing care.

4.6.1.4. Communication and feedback
Similarly to other three subscales, the respondents of this study also rated the communication and feedback subscale low. Majority of them (50%) reported that they had difficulties in knowing what was expected of them in the ward. This is despite 49% of them stating that their responsibilities as students were clearly communicated to. This view was supported by comments from open-ended questions. The respondents stated that lack of learning objectives, lack of orientation and lack of supervision and guidance compelled them to do what they thought was right. The respondents also mentioned that the ward staff communicated with them in a rude manner, with some registered nurses reprimanding them in front of other staff members and patients.

Forty eight of the respondents in this study voiced their unhappiness about the lack of feedback on their performance. Darcy Associates (2009:27) declared that the timely, balanced and specific feedback is an important aspect of communication. According to Dale et al. (2013:5), open and inviting communication entails a constructive, respectful and supportive dialogue between students and their mentors. The same researchers assert further that criticism and corrections should be conveyed in a constructive and supportive manner. One respondent in this study commented that being reprimanded and criticised in front of others make them lose confidence. Kaphagawani and Useh (2013:184) pointed out that feedback allows the student to know about their progress or lack of it, and as such, they are able to improve on their practice. This in a way has a motivating effect, making them to work harder on their deficiencies. The findings about lack of feedback are consistent with the results of the study by Koy (2015:1608). The participants in that study voiced their dissatisfaction regarding limited feedback they were getting from their instructors. They indicated that they valued feedback on their performance greatly, as it helps them to know where they stand as far as their performance is concerned. With regard to measures of improving on communication, majority of the respondents in this study indicated that they would prefer nursing staff to communicate with them cordially and to be given timely feedback on their performance.
4.6.2. REGISTERED NURSES’ PERCEPTIONS OF THE CLE

The role played by the clinical nursing staff in the facilitation and the professional development of the nursing students cannot be over emphasised. The clinical nursing staff is a source of support to nursing students as they help them acquire clinical skills and competencies to function independently in their chosen profession (Gilbert & Brown, 2015:24). According to Msiska et al. (2014a:38) the nursing students also emulate professional values such as, compassion, empathy, as well as attitude towards caring for patients from the clinical nursing staff. Negative role models are not only a source of distress for nursing students in clinical practice, but according to Gilbert and Brown (2015: 24) their actions can have devastating effects on the nursing students’ retention in the already struggling nursing workforce with staff shortages. Therefore, clinical staff should provide the nursing students with the necessary support while in clinical practice. They must also be positive mentors and role models to nursing students (Nursing Times, 2013:19).

The findings of this study suggest that the registered nurses provided the nursing students with all the support advocated above. The high agreement scores on almost all the individual clinical learning environment survey items, as well as on all the four sub-scales support this assertion. The highest registered nurses’ agreement on perceptions with regard to clinical learning environment was for supportive learning environment (90%); followed by clinical learning opportunities (79%); ward environment (73%); and lastly, communication and feedback (68%). This was very surprising since the nursing students’ agreement levels with the supportive learning environment were the lowest of all the subscale.

4.6.2.1. Ward environment

Majority of the registered nurses (86%) agreed that all staff members in the ward, including students were regarded as part of the team. Eighty three (83%) agreed that their wards can generally be regarded as a suitable environment for student learning. Notably, this is in contrast to only 65% who agreed that the ward motivated students to do their best. An explanation to that might be owing to an observation by
Lekhuleni et al. (2004:8) that while students perceive themselves as being regarded as ‘extra pair of hands’, the registered nurses might in turn perceive this as involvement in nursing care, hoping that they will learn in the process. Another reason might be owing to the concerns raised by registered nurses in this study and other studies (Zakaria & Gheith, 2015:43) was that resources needed to advance student learning were scarce. Lack of resources has been found to affect the quality of patient care rendered, consequently affecting student learning.

Zakaria and Gheith (2015:43) alluded to similar findings in a study to measure effectiveness of the clinical learning environment in Egypt, with students, clinical instructors and academic staff included as participants. The results of that study revealed that all the participants agreed that the atmosphere in their wards was not highly conducive owing to unavailability of equipment, supplies and staff shortages. According to Lawrence (2015:271), supplies and resources are fundamental in clinical practice to enhance student learning. As such, it should be a principle that they are made available for proper patient care and student learning.

Responses from the open-ended questions also revealed issues such as workload, overcrowding of students and non-involvement of clinical staff in the programmes’ planning, as some of the factors contributing to non-conducive ward environment. The findings support what the clinical facilitators in Xaba’s (2014:102) study reported about heavy workloads, exacerbated by overcrowding of students, contributed to non-conducive ward environment. According to Atack and Kenny (2000:309), overcrowding of nurses, especially those who still need intensive supervision like first years, was considered by staff to worsen their workload. This is because these students also need to be closely monitored to see if they are doing the right thing.

With regard to suggestions or their preferences to improve positive ward environments, the registered nurses wished for the manageable number of students to be allocated in order to avoid overcrowding. Others even suggested that it would be advisable if they were allowed to handle the allocations themselves as they are
the ones who know where and how students can benefit. They also made a call for the hospital management to provide them with resources, both personnel and material.

4.6.2.2. Clinical learning opportunities

D'Souza et al. (2013:28) argue that student involvement in diversity of clinical learning opportunities enhance their thinking capacity, allowing them to venture more in complex situations. The registered nurses in this study agreed more with all the items in this subscale, placing it in the second place. The agreement scores ranged from 74% to 89%. About 74% reported that their wards provided the students with the wide range of learning opportunities. However, Kaphagawani and Useh (2013:183) cautioned that it is pointless for the ward to have widest possible learning opportunities if students cannot access them. As previously stated in the text, increased workloads and staff shortages are a hindrance to student learning in clinical practice. Notably again was the assertion by 89% of the registered nurses that they generally helped students to gain widest possible learning experiences. Twenty three registered nurses mentioned in their responses to open-ended questions that they encouraged baccalaureate nursing students to take part in variety of ward rounds, while 19 said they allowed them to participate in care.

Consistent with these findings are those from Lekhuleni et al.'s (2004:8) study that determined the adequacy of clinical accompaniment in Limpopo colleges as perceived by students, unit supervisors, as well as nurse educators. In corroborating the findings of this study, Lekhuleni et al.'s study showed that the overwhelming majority of the unit supervisors and nurse educators agreed that they helped students to identify learning opportunities. It was also interesting to note in that study that, 93% of the students shared the same view. This is in contrast to the views of students in this study.
Noteworthy again, were the similarities in the agreement levels with some of the items in the clinical learning opportunities noted between the results of this study and the results of the CEU registered nurses reported in Nash’s (2007:120) study. The results were not expected and surprising, since the wards of the study site were not yet exposed to the new South African clinical education and training model at the time of data collection. The study by Nash (2007) was aimed at comparing the perceptions of both the registered nurses who were exposed to CEU model of facilitation and those who were not. What was surprising is that the registered nurses agreement levels in this study were higher than the agreement levels of the non-CEU registered nurses and the same as the CEU registered nurses in Nash (2007:120). Perhaps these inconsistencies may be explained by one researcher who noted that sometimes people will agree to things just to ‘safe face’.

A notable number of registered nurses in this study credited some of the factors contributing to failure of the nursing student to access clinical learning opportunities to the limited clinical placement period and students’ lack of motivation to learn. Students’ perceived lack of motivation may be owing to lack of support by the unavailability of the clinical supervisor at the bedside. As a result, student becomes vulnerable and their confidence level might drop because there is no one to supervise them (Baraz, et al., 2015:7). This might be interpreted as lack of motivation by the registered nurses. This might apply to this study as it was reported earlier in the text that the nursing students raised their concern about the unavailability of registered nurses to support them. The challenge with limited allocation placement period has been a cause for concern in many studies (Mabuda et al., 2008:23; Truong, 2015:77).

With regard to making it possible for the nursing students to access clinical learning environment, 13 registered nurses indicated that they would prefer the clinical learning objectives to be made available to them.

4.6.2.3. Supportive learning environment
A supportive learning environment has been identified in many research studies as the most central element in the facilitation of students' learning in clinical practice (Kaphagawani & Useh, 2013:183; Lawrence, 2014:270; Ali et al., 2015:2). In this study, the items under this subscale were mostly related to issues of the registered nurses’ attitude towards supervision and teaching of the nursing students while in clinical practice. As noted by Bourgeois et al. (2011:116), successful supervision and clinical teaching are dependent on a healthy staff-student relationship. The staff showing positive attitude to teaching as well as being available to respond to the students’ needs can enhance the staff-student relationship. According to Nursing Times (2013:19), the staff-student relationship can also be improved by accepting students as younger colleagues, being respectful towards them, as well as acknowledging their contribution to patients’ care.

The findings of this study showed that 90% of the registered nurses believed that they created a supportive learning environment for the nursing students. Of interest was the 93% who indicated that while they enjoyed working with students, they however believe that the students’ getting most out of clinical practice was dependent on their commitment. These findings are confirmed in the study by Lapeña-Moñux, Cibanal-Juan, Orts-Cortés, Macià-Soler and Palacios-Ceña (2016:5) to explore the experiences of registered nurses working with Spanish nursing students within the hospital. Majority of registered nurses in that study indicated that the students’ motivation to learn was key to the staff-student relationship. The following comment form one of the registered nurses in this study also supported this assertion:

‘Students’ who come late after the in-service education had been given in the morning, busyness of the wards and students who do not show interest’.

Another interesting finding was the 93% of registered nurses who indicated that they put more effort in teaching students, but 49% stating that they felt uncomfortable to teach students. Rikhotso et al. (2014:2) note that another factor that can lead to inadequate supportive learning environment can be attributed to the lack of registered nurses’ confidence in teaching students. This might lend credibility to this assertion since 63% of the registered nurses in this study did not have qualification
in nursing education. Another reason that might be advanced to the feeling of inadequacy in teaching of the baccalaureate nursing students by the other registered nurses in this study are the comments highlighted by the students in Baraz et al.’s (2016:3) study. The students in that study reported that the incompetency of staff and the non-supportive learning environment were the challenges they often encounter while in clinical practice. They mentioned that the clinical instructors lacked academic and practical preparation. Others used inappropriate instructional strategies, while some displayed poor supervision skills.

It should also be noted that the majority of the registered nurses working in the hospital where the study was conducted are having diploma qualification. This might also pose a problem since they are expected to offer clinical teaching to the students who are training towards a baccalaureate nursing degree. It was reported earlier in the text that students in this study said they were called ‘theory nurses’, signifying the inferiority complex felt by other registered nurses. Despite this hiccup, several studies have shown that majority of the registered nurses expressed desire to be more supportive and teach students in clinical practice (Parker & Smith, 2012:3; Martin, 2013:177; Lapeña-Moñux et al., 2016:5). This is supported by 93% of the registered nurses in this study who also mentioned that they like working with students. They stated that they are disadvantaged by factors such as increased workloads and too many students, among others. However, they indicated that they would like their efforts to be recognised and acknowledged.

With regard to their views or preference in promoting a supportive learning environment, the registered nurses in this study suggested for the appointments of full time clinical preceptors, increased accompaniment by clinical facilitators as well as, the increment of students’ clinical placement time. The non-CEU registered nurses in Nash’s (2007:147) study shared this view.

**4.6.2.4. Communication and feedback**
According to Baraz et al. (2016:5), communication is an important element in promoting students' learning in the clinical practice. A study by Lawrence (2013:271) showed how open communication between partners (clinical staff, students and university) can foster supportive relationship among all the stakeholders. Kapahgawani and Useh (2013:184) concur that communication and feedback is mandatory for effective clinical learning to take place.

Communication and feedback subscale had the lowest agreement score among the others, with only 68% of the registered nurses agreeing with the items in this subscale. Despite this, majority of the registered nurses (81) indicated that they knew what students needed to do when in the ward. However, 63% disagreed and indicated that it was always easy to know what was expected of students while in the ward. A reason to explain this discrepancy could not be found. However, analysis of open-ended questions identified a new theme of lack of communication between the hospital and the university. Majority of the registered nurses in this study voiced their unhappiness about the way the university was communicating with them. Others alluded that they were not being furnished with the students’ learning objectives, while others complained of not being consulted or included in the drawing of the students’ clinical programmes.

Majority of the issues mentioned above were also shared by participants in a study by Lapeña-Moñux et al. (2016:5) to explore interpersonal relationships among hospital nurses and the use of communication skills revealed concerns about communication. The nurses in her study voiced their wish to see a well-established effective communication system between service and the faculty. Similarly, registered nurses in this study indicated their preference to be provided with clear guidelines on how to facilitate students’ learning while in clinical practice.

The findings of this study are also consistent with the findings in Lapeña-Moñux et al.’s (2016:5) study, whereby the registered nurses in that study also complained about the same issues. A theme of ‘building bridges between clinical settings and the
university’ emerged in their discussions. According to Lapeña-Moñux et al. (2016:5), the registered nurses in their study suggested that there was a need to establish common grounds between them and the university so that they were on the same page. Moreover, they did not understand why the university was the one drawing the programmes, whereas it was them who were closely involved with students in the clinical practice. Their view was that things were just being imposed on them, instead of the university acknowledging them as partners. One registered nurse in this study shared the following sentiment:

‘Students to be distributed evenly throughout the year rather than a large number of them at the same time. Open communication between units and lecturers – we need to talk same language with respect to policies, procedures and off duties’.

‘Programmes to be send before placement, collaboration meetings, preceptors to be included in the planning phase until evaluation phase.’

Lawrence (2014:271) observes that when all stakeholders are involved from the onset, i.e. from planning of the clinical programmes, to the first day of students’ orientation, relationships become cordial and effective communication could be achieved. This was because of direct communication, not the usual two-way communication that often happens between the clinical staff and students, and students and their lectures. This type of communication gives rise to the distorted information. In order for students to be provided with positive clinical learning experiences, it is of vital importance for high education institutions to have strong collaborations with clinical areas (Nursing Times, 2013:20). NACNEP (2010:13) emphasises the need for nursing education institutions work together with the health care services so as to keep pace with the changes and new innovations taking place. This will help them to stay relevant.

4.6.3. COMPARISON OF STUDENTS AND R/Ns’ PERCEPTIONS OF THE CLE
The nursing students’ overall perceptions of their clinical learning environment and on individual subscales was very low (38% to 43%). This implied that they viewed the clinical learning environment negative. Several South African studies that have previously evaluated the perceptions of clinical learning environment from the nursing students’ point of view confirm these findings (Mabuda, 2008:22; Martin, 2013:208; Rikhotso, et al., 2014:4; Motsilanyane, 2015:68). Students in those studies also reported negative experiences in their clinical learning environment.

Other international studies also revealed negative clinical learning environment as perceived by nursing students (Dale, et al., 2013:5; Kaphagawani & Useh, 2013:183; Wawire et al., 2014:36; Baraz et al., 2015:6). In contrast, majority of the studies conducted in western countries showed that the students perceive their clinical learning environment positive (Bourgeois, 2011:118; Papastavrou et al., 2016:5). This difference in the perception may be owing to the DEU models currently in use in western countries. In South Africa, and the institution where the study was conducted, there was no particular model of clinical facilitation in place or guidelines on effective student facilitation. The nursing training institution were left on their own to employ whatever model of facilitation was convenient for them. It was only recently that measures were taken to develop a new proposed model of clinical education and training in South Africa (The Nursing Education Stakeholders, 2012). Still, the model is in its infancy and institutions were advised to trial it. However, its implementation is proving to be problematic, since the factors that affect student learning negatively in clinical practice, such as, staff shortages, lack of resources, etc., and have not yet been addressed.

On the contrary, the registered nurses’ overall perceptions of clinical learning environment was positive. This is consistent with studies that have evaluated nurses’ perceptions of clinical learning environment (Lekhuleni et al., 2004:11; Hawthorn, 2006:125; Lapeña-Moñux et al., 2016:5). Nurses have always voiced their wish to provide positive clinical learning environment However, they have credited their inability to do so to constraints they encounter in the clinical practice such as, staff shortages, low morale, increased workload, shortage of resources, as well as too
many students (Parker & Smith, 2012:3). According to Hawthorn (2006:125), nurses in the practice blame training institutions as they do not involve them in the planning of students programmes, but impose things on them.

With regard to the comparison on subscale perceptions, the nursing students had the lowest agreement levels with the items in the supportive learning environment (38%). Healthy staff-student relationship is the cornerstone of an effective supportive learning environment (Bourgeois et al., 2011:116). The findings of this study in this regard has supported what has previously being documented in the literature that students value supportive relationship more than anything else (Rahmani, 2011:3; Baraz, et al., 2015:5; Koy, 2015:1606). According to Bourgeois et al. (2011:116), when students feel respected and accepted as part of the nursing team, they will be able to approach staff and share their concerns or ask for help. In the open-ended questions, majority of the students alluded their hindrance to learn in the clinical practice mainly to negative staff attitude. Equally so, majority of them said they would prefer to be placed in a better working environment with good staff attitude. Among other aspects of the ward that would promote positive clinical learning environment, the baccalaureate nursing students strongly recommended for the teaching time to be created; to be properly delegated according to their learning needs; more supervision; proper communication with constructive feedback; equal treatment with no discrimination and to be accepted as part of the team.

The findings are in total contrast to the registered nurses, as the 90% of them felt that they had provided the students with a supportive environment. Only two of the registered nurses mentioned negative staff attitude as responsible for hindering student learning in clinical practice. These findings are supported in a study by Zakaria and Gheith (2015:43) whereby the clinical instructors and academic staff’s agreement level was high in the learning support subscale. With regard to other aspects that can promote positive clinical learning environment, the registered nurses recommended the following: appointment of full-time preceptors to concentrate on student teaching; involvement of clinical staff in the planning of students’ clinical programs; clinical facilitators to accompany students; adequate
resources to be made available and collaboration between hospital and the university. The non-CEU registered nurses in Nash’s (2007:147) study voiced similar suggestions.

However, there were some similarities with regard to preferences towards promoting positive CLE. Both respondents said they would prefer for increment of nursing staff, especially registered nurses to provide supervision, allocation of limited number of students and for the learning objectives to be made available to the wards.

### 4.7. Conclusion

The findings of this study cast some light into how the nursing students and registered nurses viewed factors affecting clinical learning differently. They also showed that the registered nurses’ perceptions of the clinical learning environment differed significantly from that of the nursing students. The registered nurses viewed the clinical learning environment more positive as compared to the nursing students. A point in case was the high ratings of almost all the items in the CLE assessment questionnaire by the registered nurses, while the nursing students had opposing views. Despite differences in opinions, the findings of this study from both the nursing students and the registered nurses have highlighted common issues previously raised in the literature essential for the promotion of positive clinical learning environment. The next chapter presents the conceptualisation of the main concepts identified from the findings of this study for the development of the model to promote positive clinical learning environment. Conceptualisation was carried out through concept analysis strategy suggested by Walker and Avant (2011).
CHAPTER 5
CONCEPTUALISATION

5.1. INTRODUCTION

The previous chapter discussed the findings of this study and enabled the researcher to identify the main concepts relevant for the development of model to promote positive clinical learning environment. The purpose of Chapter 5 is to conceptualise the main concepts that emerged from the empirical data in Chapter 4, and was compared against literature review. The main concepts central to the development of the model to promote positive clinical learning environment were identified from the emerged themes as supportive interpersonal relationship, effective clinical supervision, healthy work environment and partnership.
Sequeira (2015:2) describes conceptualisation as a process of breaking down of abstract ideas into meaningful and usable concepts. Conceptualisation of the main concepts for the development of the model to promote positive clinical learning environment in this study was achieved through the steps of concept analysis suggested by Walker and Avant (2011:158).

5.2. CONCEPT ANALYSIS

Concept analysis is a strategy of delineating a concept from the ones similar to it by scrutinising its components and redeveloping it with the aim of getting its clear meaning (Walker & Avant, 2011:158). Concepts are described as the basic fabric of theory construction, and as such, their structure and functions within the constructed model should be situated (Chinn & Kramer, 2011:176; Walker & Avant, 2011:157). For a concept to be explicit and clearly representative of its intended use, it must be analysed (Walker & Avant, 2011:157). There are different methods that can be used to analyse the concepts (Meleis, 2012:376). The researcher chose the concept analysis method suggested by Walker and Avant (2011:159) to analyse the concepts central to this study owing to its simple application. The method of concept analysis proposed by Walker and Avant (2011:159) has eight steps. For the purpose of this study, only six steps out of eight were utilised in the analysis. The utilised steps are as follows: selection of a concept; determining the aims of analysis; identification of all uses of the concept; determining the defining attributes; identification of a model case; and identification of antecedents and consequences. A brief outline of each step as described by Walker and Avant (2011:159) is given below, followed by their application in the analysis of concepts identified in this study to develop the model in Section 5.2.1.

- **Selection of concept**

  Chinn and Kramer (2011:176) posit that model development requires the selection of concepts from which interrelationship statements will be formed to construct the model. Walker and Avant (2011:160) caution that the concept (s) to be analysed should be important and useful to the research project. As such, the selection of the
concept(s) must at the very least reflect the topic of interest, or be critical to the next stage of the research. In this study, the concepts that were important for the development of the Positive clinical Learning environment model are, **supportive interpersonal relationship, effective clinical supervision, healthy work environment and partnership**

- **The aims or purpose of analysis of the concept**

According to Walker and Avant (2011:161), concepts are analysed to refine ambiguous meaning; clarify overused or repeatedly used concepts in nursing practice; develop an operational definition; develop a research instruments or add to an existing theory.

- **Identification of all uses of the concepts**

Walker and Avant (2011:161) point out that all the uses of the concept can be located from dictionaries, thesauruses, experiences, or literature.

- **Determining of the defining attributes**

The attributes of a concept are the characteristics that appear repeatedly in a concept being analysed and can help the researcher to differentiate it from a similar or related one. In fact, the attributes of the concept are the ‘heart’ of concept analysis since they are the ones that provide the real definition of the concept (Walker & Avant, 2011:162).

- **Identification of antecedents consequences**

Antecedents are the events or incidents that occur before the occurrence of the concept (Walker & Avant, 2011:167). Antecedents can be viewed as the ‘events that directly precede and serve as ‘trigger’ for a concept. These events may be related to the physical setting, lack of material or social situations. Consequences are the
outcomes or the results observed following the occurrence of the concept (Walker & Avant, 2011:167).

- Identification of a model case

Walker and Avant (2011:163) point out that it is always advisable to identify a model case as an example of the concept usage demonstrating all the defining attributes. A model case can be constructed from a real life situation, literature or from the researcher’s ideas. What counts and is important is that the model case should have all the defining attributes of the concept being analysed and be a convincing example of that concept.

The sections that follow provide an insight on how the above-mentioned steps were utilised to analyse the identified concepts. The first concept analysed is supportive interpersonal relationship, followed by, effective clinical supervision; healthy work environment and lastly, partnership. The reader should note that the step of identification of the model case was dealt with lastly. The researcher constructed a single model case in section 5.2.5 containing the defining attributes of the four analysed concepts, representative of a positive clinical learning environment.

5.2.1. Supportive interpersonal relationship

The selection of the supportive interpersonal relationships concept was based on the findings of this study A supportive interpersonal relationships between the students and the lecturers, is one of the critical element of positive clinical learning environment, and a motivator for clinical learning (Bryan, Weaver, Anderson-Johnson & Lindo, 2013:41). The quality of the interpersonal relationship between the student and the lecturer in the clinical learning environment has the potential to either promote or hamper the students’ learning experiences (Ali, 2012:15). Majority of the nursing students in this study indicated that they would prefer to have a supportive interpersonal relationships with the clinical staff when in clinical practice. A supportive interpersonal relationship is not only crucial for the promotion of positive
clinical learning environments, but it is also a major determinant in students’ perception of clinical learning environment (Darcy Associates, 2009:16).

- **Purpose**

The purpose of analysing supportive interpersonal relationship concept was to create an operational definition that would clearly describe its characteristics within the model to promote positive clinical learning environment. The analysis was also done to elucidate correct strategies that would guide the actions of the hospital registered nurses when interacting with the nursing students when in clinical practice.

- **Uses**

The daily usage of the concept of supportive interpersonal relationship was located from dictionaries and literature (Walker & Avant, 2011:161). The usage of supportive interpersonal relationship as a single concept was not found in the dictionaries. However, the words supportive and interpersonal relationship were found to be used separately. According to McIntosh (2013:1078), a concept of supportive can be described as an act of showing agreement and giving encouragement. The term interpersonal relationship refers to the nature of interactions that takes place between two or more people (McIntosh, 2013:817). Relationship can also mean an emotional connection shared by people (Oxford South African School Dictionary, 2013:502).

A supportive interpersonal relationship may occur between different people, for example, parents and children; friends, family; co-workers; strangers; peers; teachers and students (Camara, Bacigalupe & Padilla, 2013:124). According to Bryan, Weaver, Anderson-Johnson, and Lindo (2013:41), a supportive interpersonal relationship can also exist in different contexts such as home (families); workplace (employer and employee, or colleagues); social places (friends) and academia (teacher and student). A supportive interpersonal relationship can be provided emotionally; informational; materially or socially (Camara et al., 2013:124). Among all
these, the emotional support is the most beneficial since it encompasses the affective well-being behaviours such as, expression of love, appreciation and listening (Camara et al., 2013:124).

In nursing literature, the student-staff relationship has been cited as the most important factor influencing students’ learning experience (Kaphagawani & Useh, 2013:184; D'Souza et al., 2013:29). Darcy Associates (2009:16) posits that positive interpersonal relationships and staff interactions are a measure for a positive clinical learning environment. Hence, the students’ perceptions of the clinical learning environment are widely used as a major factor in ascertaining its effectiveness. Lack of supportive interpersonal relationship between the teacher and the student threatens their support and respect needs, and they end up feeling disempowered (Cooper et al., 2011:3). Bryan et al. (2013:41) posit that a supportive interpersonal relationship between the nursing students and the lecturers should be characterised by a communication that is clear, trustworthy, respectful, mutually understanding, caring, honest, and motivating.

In this study, the supportive interpersonal relationship that must exist between the nursing students and the clinical teachers must encompass all the dimensions of emotional, material, social, as well as information. The supportive interpersonal relationships between the nursing students and the clinical teachers must display affective behaviours such as trust, respect, understanding, and honesty. The communication should be effective.

- **Defining attributes**

The attributes of supportive interpersonal relationship identified from dictionary and literature definitions include good interaction or encouraging communication between two or more people (McIntosh, 2013:1078). In this study, the attributes of supportive interpersonal relationship involves good communication and interaction between the BCUR nursing student and the hospital registered nurses or other members of the
clinical staff. More importantly, this interaction should also be the guiding principle of communication between the health care facility staff and the selected NEI staff.

Supportive interpersonal relationship in this study also refers to the interaction that exists between the student and the clinical staff or between the health care facility and the university. The connection among all the stakeholders is characterised by an honest, caring, friendly, and a respectful communication promoting trust. The relationship is based on mutual understanding and respect. The interactions must exist in the right conditions in which assistance is given in a caring and encouraging manner, allowing the nursing student to succeed. Studies have repeatedly shown that students value respect, trust, support, and acceptance. Attributes of supportive interpersonal relationship are summarised in Table 5.1.

**Table 5.1: Summary of supportive interpersonal relationship’s attributes**

<table>
<thead>
<tr>
<th>‘Supportive’</th>
<th>‘Interpersonal’</th>
<th>‘Relationship’</th>
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</thead>
<tbody>
<tr>
<td>Showing agreement</td>
<td>Connected</td>
<td>Respect</td>
</tr>
<tr>
<td>Giving encouragement to succeed</td>
<td>Communications</td>
<td>Association</td>
</tr>
<tr>
<td>Give assistance</td>
<td>Interaction</td>
<td>Caring</td>
</tr>
<tr>
<td>Help someone emotionally</td>
<td>Existing</td>
<td>Honest</td>
</tr>
<tr>
<td>To provide the right conditions,</td>
<td>Occurring</td>
<td>Clear communication</td>
</tr>
</tbody>
</table>
• **Antecedents**

Supportive interpersonal relationship between the student and clinical staff, as well as between the health care facility and the university has been found to be good for effective clinical learning (Arries, 2009:147). Non-supportive interpersonal relationship on the other hand has been attributed to the negative repercussions for all the stakeholders. In order for supportive interpersonal relationship to exist in the CLE, positive organisational culture must be in place. Positive organisational culture include development and training of staff in relationship and communication skills; positive staff attitudes; empathy; reduction of occupational stress; and improved working conditions that will translate into job satisfaction (Moñux, Juan, Marcos & Soler, 2014:556).

• **Consequences**

The consequences of supportive interpersonal relationship are multi-faceted. Supportive interpersonal relationship has been found to have positive outcomes on students’ learning, health care facility, NEI, as well as the patients’ care. Consequently, the students will have sense of belonging leading to positive learning experiences (Levett-Jones et al., 2009:322). When a sense of belonging is enhanced, the students feel secure and valued. As a result, they challenge themselves more by undertaking tasks that initially seemed difficult to achieve, therefore instilling confidence and self-efficacy. Job satisfaction of staff will lead to reduced turnover for the health care facility and improved patient care (Ritter, 2011:29). Dale et al. (2013:4) maintain that a supportive interpersonal relationship between the student and the clinical supervisor can have positive influence on the graduates that the NEI produces (Pillay & Mtshali, 2008:48).

5.2.2. Effective clinical supervision

The selection of effective clinical supervision was influenced by the poor results of this study as perceived by the nursing students. In the domains that comprised the
clinical learning assessment questionnaire, supportive learning environment, of which many questions relating to clinical teaching and supervision was part of, was perceived negatively by the majority of the nursing students (see Chapter 4, Section 4.3.2.5). These poor results were validated by the responses from the majority of the nursing students, indicating their preferences for an effective clinical supervision, from which this theme emanated.

According to Franklin (2013:39) clinical supervision is recognised as a very critical element in the preparation of the nursing students for easy transition into their professional role. Thus there is a need for clinical supervision to be made effective so that the students can be able to learn clinical competencies under the watchful eye of a registered nurse, without fear of making a mistake or harming a patient. Effective clinical supervision has been noted as the most important determinant of a positive learning environment (Franklin, 2013:39).

- **Purpose**

The Nursing Act, 2005 (Act No. 33 of 2005) mandates the nursing students to work under direct or indirect supervision of a registered nurse. Despite this directive, the majority of CLE still face the challenge of lack of effective clinical supervision for nursing students (Pillay & Mtshali, 2008:48). Perhaps this can be attributed to an assertion made by Franklin (2013:40) that although clinical supervision is a common concept, many interpret it differently, and often confuse it with task allocations, with the hope that students will learn from ‘doing’.

The purpose of analysing the concept of an effective clinical supervision in this study was to clarify its operational meaning for correct application within the Positive Clinical Learning Environment model. An operationalised effective clinical supervision concept will also serve as a frame of reference for those involved in the supervision of nursing students, therefore enabling them to understand what it entails and institute it properly.
The use of an effective clinical supervision as a single term could not be found in different dictionaries. Instead, each component of the whole term was defined individually. According to McIntosh (2013:485), the concept of effective clinical supervision is used to describe an act of being successful, or achieving the desired results. The concept of clinical is used to describe the medical examination or teaching work about the patients (McIntosh, 2013:274). Oxford South African School Dictionary (2013:111) defines clinical as the observation and treatment of actual patients rather than theoretical or laboratory studies. According to McIntosh (2013:1580), supervision can be used to describe the act of keeping a close watch or overseeing an activity with the intention of ensuring that one performs it properly.

Effective clinical supervision is defined by Health Service Executive (2015:11) as “regular, protected time for facilitated, in-depth reflection of clinical practice. It aims to enable the supervisee to achieve, sustain, and creatively develop a high quality of practice through the means of focused support and development. The supervisee reflects on the part she plays as an individual in the complexities of the events and the quality of her practice. This reflection is facilitated by one or more experienced colleagues who have expertise in facilitation and frequent, ongoing sessions are led by supervisee’s agenda. The process of clinical supervision should continue through the person’s career, whether they remain in clinical practice or move into management, research, or education”. Supervisors foster the supervisee’s professional development (Camargo & Royce, 2013:3). In the nursing literature, Brunero and Stein-Parbury (2011:87) define effective clinical supervision as a process of providing the nurses with learning and professional support in order to assist them to develop their practice through regular discussion time with experienced and knowledgeable colleagues.

In this study, the use of the concept of effective clinical supervision refers to an act of observing or overseeing the nursing students’ nursing activities performed on
patients in clinical practice by the registered nurses based on a trusting relationship. The overseeing is done in order to ensure that the desired results of positive learning outcomes are achieved and successful. The nursing students’ activities should be guided by their learning objectives. This overseeing process by the registered nurses will be done with the purpose of proving the nursing students with professional support so that their clinical practice skills are enhanced and sustained, resulting in the achievement of quality clinical competencies. The nursing student will be provided with regular and protected time to reflect on their contribution as individuals in the nursing care and the complexities of the clinical practice. The registered nurses who oversee the nursing students’ activities should always be available to offer support; be an expert in her/his field and be open to discussions. The registered nurse must also provide the nursing student with constructive and meaningful feedback in an empathetic and ethical manner.

- **Defining attributes**

The characteristics of effective clinical supervision that appeared repeatedly in the literature and enabled the researcher to differentiate it from other disciplines include optimal patient environment; direct management and regulation of processes; teaching; successful achievement of desired results; and characteristics of the environment, supervisor and supervisee. The attributes of an effective clinical supervision from the dictionary and literature definitions are summarised in Table 5.2.

### Table 5.2: Summary of effective clinical supervision’s attributes

<table>
<thead>
<tr>
<th>Effective</th>
<th>Clinical</th>
<th>Supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Successful</strong></td>
<td>Medical or teaching work on examination of patients</td>
<td>Watching and directing activities</td>
</tr>
<tr>
<td><strong>Achievement of the desired results</strong></td>
<td>Observation and treatment of actual patients</td>
<td>Act of watching a person or activity seeing that it is done correctly</td>
</tr>
<tr>
<td>Direct observation of the patients</td>
<td>Monitoring and regulating of processes, activities, responsibilities, or tasks</td>
<td></td>
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<tr>
<td>-----------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Sustain good practice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective clinical supervisor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivated students</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Antecedents**

Pillay and Mtshali (2008:48) found the preconditions for effective clinical supervision to involve organisational processes and the availability of resources. Organisational processes involve ensuring that human and material resources are available. Both respondents in this study attributed lack of resources as a hindrance to students’ clinical learning. Time for clinical teaching should be created to ensure that effective supervision takes place. Open channels of communications should exist between the health care facility and the NEI so that the role and students’ expected learning outcomes are clarified. Both the clinical supervisor and the supervisee expectations should be known and agreed by both parties before effective clinical supervision can take place (Henning, et al., 2011:33).

The role that the students play in ensuring that effective clinical supervision is realised is enormous (Camrgo and Royce, 2013:3). Besides relying on the clinical supervisor to lead the way, the student should also play their part in ensuring that effective supervision occurs. The nursing students should be active participants by being motivated, committed, proactive, and self-directed. Moreover, clinical supervisors should employ different teaching methodologies such as student-centred and problem solving strategies in order to encourage students to assume responsibility of their learning (Walters, 2015:19). Integral to the effectiveness of clinical supervision is the presence of clinical supervisors who are appropriately trained, skilled and have good qualities. An effective clinical supervisor should be a role model to the students and exude the following qualities: be trustworthy; honest and open; be a good listener, competent; committed; friendly and non-judgemental
(Dale et al., 2013:3). The clinical supervisor must also provide emotional support to the students, as well as giving positive and constructive feedback (Franklin, 2011:40).

- **Consequences**

The consequences of an effective clinical supervision include enhanced self-efficacy, enactive mastery experience, and self-assurance (Camargo & Royse, 2010:3). Effective clinical supervision is also accredited to the creation of a safe environment and improved client outcomes. Individuals who enjoy the support of the supervisor are able to handle situations. Effective clinical supervision has found to reduce work-related stress and anxiety as the supervisee works under the guidance of a supervisor. As a result, an increased sense of control and self-efficacy develops (Camargo & Royse, 2010:3). Positive learning experiences, motivation to learn, self-confidence and achievement of learning outcomes among nursing students have been associated with effective clinical supervision (Dale et al., 2013:3). The need for effective clinical supervision in this study will see the nursing students experiencing positive learning experiences translating into satisfaction with the clinical learning environment as they become clinically competent. The long-term spin-offs will be of an independent, clinically competent and an emancipated registered nurse (Camargo & Royse, 2010:3).

### 5.2.3. Healthy work environment

The selection of the concept of a healthy work environment was based on the findings of this study. The theme of a need for healthy work environment came out strongly from the responses of the majority of registered nurses with regard to the aspects of the ward that retarded nursing students’ clinical learning, and the preferred clinical learning environments. A healthy work environment is a concept that is central to nursing, and very close to the hearts of many nurses. Healthy work environment is defined by the Registered Nurses’ Association of Ontario (RNAO) (2008:12) as “a practice setting that maximises the health and well-being of nurses, quality patient outcomes and organisational and system performance”. Having a
healthy work environment will ensure the safety, recruitment and retention of nurses, as well as increased productivity (RNAO, 2008:12). To that effect, the RNAO (2008:1) developed an Evidence-based Healthy Work Environments Best Practice Guidelines, a document intended to support nurses so that they can deliver an excellent service in their day-to-day work, including students’ teaching in clinical practice. Majority of registered nurses attributed the lack of human and material resources to the negative clinical learning environments that the nursing students are not happy about. According to Joolaee, Farahani, Amiri and Varaei (2016:1) nursing work environment influences the quality of students’ clinical learning experiences in a negative or positive way, depending on the type it is. As such, it is crucial to have healthy work environments for nursing staff that will contribute positively to nursing students’ clinical learning.

• Purpose

The purpose of analysis of the concept of a healthy work environment for nurses is to provide a frame of reference for the hospital management and policy makers to make evidence-based decisions when planning issues relating to the nurses’ working conditions. The analysis was also intended to clarify the concept of a healthy work environment in relation to the promotion of positive clinical learning environment for the benefits of nursing students.

• Uses

A concept of healthy work environment is made up of two concepts. Each component was defined individually. According to McIntosh (2013:720) the concept of healthy refers to something that is successful and strong, or ‘normal and showing good judgement’. Healthy concept according to Oxford South African School Dictionary (2013:280) refers to the indication or promotion of good health, beneficial to one’s physical, mental, and emotional state. Concept of work according to McIntosh (2013:1812) is defined as a mental or physical activity, such as a job that a person engages in for the purpose of earning money. The concept of environment can be used in twofold, in relation to nature or surroundings (McIntosh, 2013:1812).
In relation to the surrounding, an environment refers to the cultural or social conditions in which one lives or work, and their influence on one’s feelings and work performance (McIntosh, 2013:509).

The concept of healthy work environment in literature is used interchangeably with concepts such as, healthy workplace (Health and Safety Ontario, 2011:2); positive work environment (European Agency for Safety and Health at Work, 2013:1); workplace wellbeing (Hafner, van Stolk, Saunders, Krapels & Baruch, 2015:1) and supportive work environment (Kuehn, 2010:193). Therefore, its definition differs in terms of scope and context.

In occupational health and safety, healthy work environment involves quality and physical safety of ones’ working life; feelings about their work; working environment; work climate, as well as the work organisation. In nursing, several researchers have attempted to define the concept of healthy work environment in relation to their entities. For example, Janakiraman et al. (2011) define a healthy work environment in a healthcare setting and Tucker et al. (2010) cited by Sevilla-Zeigen (2016:8) as a productive environment characterised by an open communication and collaborative efforts among all the team members. Furthermore, nurses work freely in a healthy work environment without succumbing to pressure and endeavour to provide a safe and quality patient care.

According to Kuehn (2010:193), a healthy work environment in nursing faculty reflects a supportive workplace valued by its employees, as well as encouraging them to grow and develop to their full potential. RNAO (2017:6) describes a healthy work environment for nurses as ‘a practice setting that maximises the health and well-being of nurses while ensuring improved organisational performance and the best possible outcomes for patients, their families, and the community’. The American Association of Critical-Care nurses’ key standards of a healthy work environment include skilled communication; true collaboration; appropriate staffing;
authentic leadership; meaningful recognition, and effective decision-making (Longo, 2013:7).

In South Africa, The National Strategic Plan for Nurse Education and Training (2012:27) used the concept of positive practice environment (PPE) to denote a healthy work environment. The envisaged PPE is described as an environment that ensures the health, safety and well-being of staff; supports quality patient care; and motivates individuals and organisations to be productive and perform at their best (The National Strategic Plan for Nurse Education and Training, 2012:27). However, the intended PPE are still to be created, which signifies the need for other strategies that would promote the nursing students clinical learning in the interim.

Based on the different uses listed above, a healthy work environment in this study suggests an environment that will cater to the emotional, physical and psychosocial well-being and safety of the hospital clinical staff and students. A healthy work environment will ensure that clinical staff, especially registered nurses and students are supported, valued, and encouraged to grow and develop to their full potential. The hospital registered nurses will be empowered by being provided with required clinical skills that will enable them to support and supervise the nursing students effectively. A healthy environment in this study will be guided by the principles of open communication; teamwork; availability of resources (human and material); authentic leadership; meaningful recognition, and effective decision-making.

- **Defining attributes**

The following characteristics of a healthy work environment that appeared repeatedly in the literature were identified and include, staff’s physical, emotional, psychosocial well-being and safety; team work; open communication and collaboration; empowered, valued and supported staff. The attributes of a healthy work environment are summarised in Table 5.3.
Table 5.3: Summary of healthy work environment’s attributes

<table>
<thead>
<tr>
<th>Healthy work environment</th>
<th>Defining attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quality and safety of the physical environment</td>
</tr>
<tr>
<td></td>
<td>An open communication and collaborative efforts</td>
</tr>
<tr>
<td></td>
<td>Supported; valued and empowered</td>
</tr>
<tr>
<td></td>
<td>Maximised health and well-being of nurses ensuring improved organizational performance and the Best outcomes for patients, their families, and the community</td>
</tr>
<tr>
<td></td>
<td>Appropriate staffing; authentic leadership; meaningful recognition, and effective decision making</td>
</tr>
</tbody>
</table>

- **Antecedents**

In order to create healthy work environment that will lead to the promotion of positive CLE, some elements should be observed beforehand. The American Association of Critical-Care Nurses (2016:1) developed six standards essential for the development of a healthy work environment for nurses in ICU, which can also be applied to other nursing practice contexts. In this study, the six standards will also serve as the antecedents for the creation of healthy work environment that will lead to the successful promotion of the positive clinical learning environment. According to the American Association of Critical-Care Nurses (2016:1), the six standards will lead to the establishment and the sustainability of a healthy work environment are the following:

- **Skilled Communication**

Nurses must be as proficient in communication skills as they are in clinical skills (AACN, 2016:1). Findings of this study have shown that the clinical staff has poor communication and interpersonal skills that led to the nursing students feeling
dissatisfied with the current clinical learning environment. Providing clinical staff with appropriate skills will enable them to communicate effectively with the nursing students, resulting in positive learning experiences and outcomes.

- **True Collaboration**

“Nurses must be relentless in pursuing and fostering true collaboration” (AACN, 2016:1). The hospital registered nurses raised their concern with regard to the lack of working relationship between them and the selected NEI nursing department. Lawrence (2013:270) maintains that it is very important for the health service providers and the NEI to have a close, collaborative, committed working relationship. A true collaboration between the hospital and the selected NEI nursing department will ensure that both parties work amicably towards the successful promotion of positive clinical learning environment for the nursing students. Regular meetings between the hospital registered nurses and the selected NEI clinical facilitators will see that collaboration is sustained (Lawrence, 2013:271).

- **Effective Decision Making**

As ACCN (2016:1) postulates, “Nurses must be valued and committed partners in making policy, directing and evaluating clinical care, and leading organisational operations”. The hospital registered nurses in this study voiced their dissatisfaction of not being involved when the nursing students’ programmes are drawn. As a result, they felt unhappy that decisions were taken for them whereas they are the ones expected to teach and support the nursing students in clinical practice. In order for the hospital registered nurses to feel valued and considered equal partners by the selected NEI nursing department, they should be involved not only in the delivery clinical activities, but also in the designing stages so that they also add their inputs.

- **Appropriate Staffing**

According to Jones (2010:9), staffing must be effectively matched with the patient needs and nurse competencies. Shortage of nursing staff, especially appropriately trained staff is not only a concern for poor quality of patients’ care, but also affect the
students’ clinical learning. A study by Jones (2010:9) highlights the negative impact that staff workload has on student/staff relationship. Students in her study indicated that they were reluctant to approach staff for help when they have increased workload, therefore affecting their learning. According to Joolaee et al (2016:2), inappropriate staffing can lead to what is called lack of instrumental support. Instrumental support is the ‘hands on’ support given to students by the clinical teachers.

- **Meaningful Recognition**

  As ACCN (2016:1) postulates, “Nurses must be recognised and must recognise others for the value each brings to the work of the organisation”. Henderson et al. (2011:5) postulate that the nurses should be recognised, empowered and appropriately rewarded for their contribution in the work context. An empowering environment provides its employees with information, resources, support and opportunities to grow professionally. A positive clinical learning environment will ensure that clinical staff work hand-in-hand with selected NEI nursing department and are empowered. Necessary professional support provided by the University will ensure that the clinical staff is adequately prepared to deal with students.

- **Authentic Leadership**

  As ACCN (2016:1) postulates, “Nurse Leaders must fully embrace the imperative of a healthy work environment, authentically live it, and engage others in its achievement”. Nurse leaders and managers play a critical role in the creation of healthy work environment (ACCN, 2016:33). At the ward level, ward manager plays a crucial role in the promotion of a positive clinical learning environment that is conducive to students’ learning (Skaalvik et al., 2011:6). An authentic ward manager in the clinical learning environment encourages a culture of learning that recognises students’ clinical teaching.

- **Consequences**
Consequences of a healthy nursing work environment include staff recruitment and retention, as well as positive patient outcomes (Kuehn, 2010:193). Healthy work environment has also been associated with increased productivity, organisational sustainability, empowered staff and decreased turnover (Little-Stoetvel, 2017:1). Other consequences of a healthy work environment include positive work environment, staff job satisfaction and commitment. The consequences of a healthy work environment in this study will result in the hospital registered nurses who are empowered, satisfied with work environment and committed to providing an effective clinical teaching. The consequences of a healthy work environment will also result in the nursing students having a sense of belonging and satisfaction with the clinical learning environment. The nursing students will also be able to achieve their clinical learning outcomes.

5.2.4. Partnership

The selection of a concept of partnership between the hospital and the selected NEI nursing department in this study was due to the strong views of the majority of the registered nurses indicating a need for such an arrangement. Both the clinical practice and academia play a crucial role in the education and training of the nursing students, requiring the two institutions to work in partnership (Bvumbwe, 2016:315). The role that the clinical practice and the academia play in the nursing students’ training is to narrow theory-practice gap. However, the seemingly working in silos of the clinical practice and the academia, has resulted in the clinical learning environment becoming more disintegrated, and continuously production of nursing graduates who are clinically incompetent (Bvumbwe, 2016:315). The same researcher maintains that the hope of an improved nursing education system, which will subsequently lead to the promotion of positive clinical learning environment, can only be achieved through academic-clinical practice partnership (Bvumbwe, 2016:315). The selection of a concept of partnership between the hospital and the selected NEI nursing department in this study was due to the strong views of the majority of the registered nurses indicating a need for such an arrangement. Majority of the hospital registered nurses in this study voiced their unhappiness regarding their non-involvement and poor communication between them and the selected NEI
nursing science department with regard to nursing students’ clinical programme (see Chapter 4, Section 4.4.3.3).

• The purpose

The concept of partnership has been used extensively and applied in different fields such as health, psychology, sociology, business, and management (Carnwell & Carson, 2008:1). This has seen it being used interchangeably with concepts such as collaboration, teamwork and communication, alliance, association, joint business venture, among others (Carnwell & Carson, 2008:1). The purpose of analysing the concept of partnership in this study was to develop an operational definition that would distinguish it from the other similar concepts mentioned above. Having an operational definition of hospital-University partnership would provide the stakeholders with its clear meaning, as well as its proper implementation strategies.

• Uses

McIntosh (2013:1118) defines partnership as a working relationship between two or more people, organisations, or countries as partners. World Health Organisation (WHO) (2009:2) defines partnership as a collaborative relationship between two or more parties based on trust, equality and mutual understanding for the achievement of a specified goal. Eilbert and Lafronza (2005) cited by WHO (2009:1) refer to partnership as ‘a social system or entity based on an agreement between participating organisations to collaborate on common goal in which benefits and risks, as well as resources and power are shared fairly’. To clarify the use of partnership in nursing education, Beal (2012:1) describes partnership as a strategic working relationship that exists between educational and clinical practice settings, established with the purpose of advancing their mutual interests with regard to practice, education, and research.

In this study, the partnership between the hospital and the selected nursing department will involve a collaborative working relationship between the two institutions. This would be based on open lines of communication; trust, respect for
each other’s point of view, equality and mutual understanding established with the purpose of supporting and advancing the nursing students in their programme.

- **Defining attributes**

The characteristics of partnership that were common in all the definitions are summarised in Table 5.4. According to Carnwell and Carson (2008:12), the type of commitment agreed upon can also differentiate partnership. The commitments can be in the form of limited for a particular project. The commitment can also be a problem orientated project, with the partnership intended to solve a specific problem. Another type of commitment is an ideological partnership based on shared the point of view or ethical agenda.

**Table 5.4: Summary of partnership’s attributes adapted from (Carnwell & Carson, 2008:12)**

<table>
<thead>
<tr>
<th>Partnership</th>
<th>Defining attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative relationship</td>
<td>Relationship between two or more people, organizations, or countries working together as partners</td>
</tr>
<tr>
<td>Achievement of a specified and common goal</td>
<td></td>
</tr>
<tr>
<td>Shared accountability.</td>
<td></td>
</tr>
<tr>
<td>Shared understanding</td>
<td></td>
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<tr>
<td>Appropriate governance structures</td>
<td></td>
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<tr>
<td>Transparent lines of communication</td>
<td></td>
</tr>
<tr>
<td>Reciprocity</td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td></td>
</tr>
<tr>
<td>Blurring of professional boundaries</td>
<td></td>
</tr>
<tr>
<td>Teamwork</td>
<td></td>
</tr>
<tr>
<td>Respect of specialist expertise</td>
<td></td>
</tr>
</tbody>
</table>
• **Antecedents**

In order for the partnership between academia and service to be effective and sustainable, Carnwell and Carson (2008:9) maintain that initiatives from individual, local and national levels must be instituted. In this study, from individual level, the hospital registered nurses and selected NEI clinical facilitators must initiate regular meetings whereby issues affecting nursing students are discussed and consensus met. Other pre-conditions that must be in place for these initiatives and partnership to be effective include trust, shared vision, commitment, and mutual respect.

At local level, the selected NEI management and the hospital nursing management must work together in order to support the individual endeavours of the hospital registered nurses and the clinical facilitators. At national level, there must be a policy change with regard to the education and training of the nursing students. Beal (2012:2) points out that of importance to the establishment of all the above-mentioned antecedents, self-and mutual-assessment of strengths and opportunities must be considered first.

• **Consequences**

Partnership between the academia and the health care service have been found to benefit students, staff and the organisations (Henderson et al., 2011:8). Through partnership, the University can support and provide educational opportunities for clinical staff. More importantly, this will equip and prepare the hospital registered nurses to offer quality education to the nursing students. On the other hand, the health care facility will benefit from the highly qualified staff who will be in a position to provide safe and quality patient care, therefore reducing medical errors and saving money for the organisation (Henderson et al., 2011:8).
The other consequences that can be observed in the academic-service partnership are strength and power in mutual gaol setting, increased visibility, increased nurses’ self-esteem owing to being acknowledged for their contribution, maximisation of resources, staying abreast in current practice trends by academic staff as they will be actively participating and exposed more often to the clinical practice (Beal, 2012:2). Long-term benefits of academic-service partnership include improved organisational efficiencies as both parties will be having shared and common goals. There will also be opportunity of evidence-based-practice (EBP) as people will be innovative and doing things in a new way. A study by Lawrence (2013:270) in which one of the objectives was to encourage partnership between the health care service and the training institution proved that working as a team has the potential to foster a close, collaborative and committed relationship among those involved.

5.2.5. Constructed cases

Walker and Avant (2011:163) postulate that the defining attributes of a concept should be followed by a model case in order to demonstrate the understanding of the concept. A constructed model case should have all the defining attributes of the concept being analysed and be a convincing example of it. The researcher constructed a constructed model case having the attributes of all the four analysed concepts representative of a positive clinical learning environment. The model encapsulates a supportive interpersonal relationship, effective clinical supervision, healthy work environment, and partnership between the hospital and the University and is presented next.

- Model case

It is at the beginning of the University academic calendar and the NEI nursing department has admitted a group of hundred new nursing students. The NEI nursing clinical department convened a meeting with the hospital clinical teaching department through the nursing management, to inform and involve them in the planning of the orientation program. During the plannery meeting, the hospital preceptors were orientated to the clinical education curriculum and their role and
responsibilities with regard to students’ accompaniment. The hospital preceptors were also provided with students’ clinical procedures, learning objectives and assessment procedures so that effective teaching could take place.

The NEI clinical facilitators set together with the hospital preceptors to draft the student allocation lists. The hospital preceptors provided a valuable guidance as to how allocation should be carried out, as they are the ones who are knowledgeable about the hospital needs in terms of staff allocation. The hospital preceptors requested for manageable number of students to be allocated as this would ensure effective supervision. The hospital preceptors’ input was also helpful with regard to the wards that would provide the students with appropriate learning opportunities. The plannery meeting was fruitful as there was exchange of ideas, with everybody’s point of view considered and respected. The NEI nursing department also took an undertaking of providing the hospital preceptors with the opportunities for capacity building as well as professional development, especially for those who did not have nursing education. The hospital preceptors were invited to attend the students’ orientation day so that they could be introduced as partners in their clinical training. The meeting ended on a good note with both parties happy and committed to work together. Dates for regular meetings were set. [Effective communication and Partnership]

After going back to the hospital, the preceptors met with their area managers to give them a feedback about their meeting with the NEI nursing department. They also informed the management that the nursing students will be coming for work-based learning and that proper arrangements need to be done so that the students can have positive learning experiences. The area managers communicated with the operational managers of the respective wards to ensure that adequate number of staff, especially the registered nurses are on duty when the students are around. The adequate number of staff on duty would ensure that the students get effective supervision. The operational managers ensured that there was enough stock and the equipment were functioning well so that the students can observe and learn to provide quality. The operational managers held a meeting with the clinical staff and
the preceptors with the aim of creating a culture of learning that support students’ clinical teaching. In the meeting, they deliberated on issues such as staff preparation for teaching role and teamwork. Workload assignment was also discussed to deliberate on how nursing care will be restructured to accommodate the teaching of students.

Every staff member was granted an opportunity to raise their opinion freely without intimidation. Those who raised their concern with regard to staff shortage were assured that it will be looked into. It was also agreed that those staff members who were assigned to teach and supervise students should be supported and their responsibilities to be reduced so that they can give the students the necessary attention. The preceptors gave the registered nurses who were assigned to teach students in-service education about the nursing students’ program. She also clarified their role and responsibilities with regard to students’ teaching.

The registered nurses who were interested in teaching students were very happy to hear that the NEI nursing department intended providing them with a workshop on students’ preceptoring. The registered nurses were also impressed that there will be regular meetings between the NEI nursing department and the hospital so that there is a healthy working relationship. The clinical nursing staff were very happy and appreciated the fact that the managers communicated with them beforehand, and gave them chance to raise their opinions freely. They were also excited that the managers had promised to ensure that the wards will have adequate stock and staff, as well as being provided with necessary clinical teaching skills by the NEI nursing department. The clinical staff were impressed that attending workshops will not only provide them with skills, but will also advance to their professional development. Being awarded CPD points when attending workshops was also the reward they appreciated. [Healthy work environment]

When the time for the first year nursing students to go for work-based experiences come, their NEI clinical facilitator informed them about the wards they were allocated
at. The nursing students were furnished with the clinical workbook stipulating clearly their learning objectives and outcomes. The NEI clinical facilitator also gave them guidelines explaining their responsibilities while in clinical practice. A week before, the NEI clinical facilitator had spent time with them, demonstrating psychomotor skills in the skills laboratory that they would be exposed to the wards. The NEI clinical facilitator responsible for first years also communicated with the hospital preceptors of the respective wards in order to remind and confirm their readiness with regard to the students’ allocation. It turned out that all the preparations were made, and the clinical staff were ready to accommodate the 1\textsuperscript{st} year nursing students and provide them with the necessary support.

The 1\textsuperscript{st} year nursing students were allocated eight in a group, each group allocated to different wards according to their learning needs. They were warmly welcomed in the wards and orientated to the routine of the wards. Everybody in the wards was friendly and asked 1\textsuperscript{st} year nursing students to ask for help should they need clarity about anything. After orientation, the respective preceptors delegated the 1\textsuperscript{st} year nursing students according to their learning needs and objectives. The preceptors ensured that the 1\textsuperscript{st} year nursing students were paired with experienced member of the nursing team since they were new in the profession and were never exposed to patient care. The pairing was done so that they could be supported and function under close supervision of an experienced nurse. The experienced members of the nursing team who supervised the 1\textsuperscript{st} year nursing students were very friendly and helpful. They used teachable moments to teach nursing students. The preceptors told the 1\textsuperscript{st} year nursing students that interacting with other students would also help them to share their experiences and also support each other. During the doctors’ rounds, the preceptors asked the nursing students to go join in as they would learn a lot. The doctor was also friendly and teaching students as they go along with rounds.

The registered nurses who were assigned to supervise students constantly reassured the 1\textsuperscript{st} year nursing students when they felt afraid and insecure, reminding them that everybody was a novice nurse at some stage in their lives and that they too, will be knowledgeable and be competent. The preceptors asked the clinical
nursing staff to involve and allow the 1st year nursing students’ time to observe and actively participate in the activities as that would allow them to be hands on and gain confidence, achieve their learning objectives in the process. During lunch time, the preceptors asked the 1st nursing students to take an extra time and sit in the students’ designated meeting room so that she could reflect and check if they were achieving her objectives. Later during the day, the NEI clinical facilitator went to the wards to check if they the 1st year nursing students were settled in and coping well. She also checked with the hospital preceptors if they were coping well with students. She found out that everything was well. Both the hospital preceptors and 1st nursing students appreciated her efforts and support.

By the end of the shift, the 1st year nursing students were happy and did not regret the thought of joining the nursing profession. They told the clinical staff that they were looking forward to coming back the next day. The 1st year nursing students also told the hospital preceptors that they had reservations about their stay in the wards, since they heard stories that the hospital clinical staff, especially registered nurses were very rude and have bad attitude. They were surprised to find that everybody was friendly and helpful, thus making them feel as part of the team already. Some of the 1st year nursing students mentioned that some members of the clinical team were already calling them by their first names, indicating that they had accepted them. When it was time to knock off, the preceptor thanked the 1st year nursing students for adapting well within the team. She enquired if they managed to meet their learning objectives, of which they replied yes and that their expectations were exceeded. The preceptor then signed the 1st year nursing student off, wished them well and that they were also looking forward to having them for the duration of their stay in the wards. The preceptor also thanked the clinical staff for the support they gave to students and teaching them. [Supportive interpersonal relationship and Effective clinical supervision]
5.3. CONCLUSION

In this chapter, the main concepts central to the development of the model to promote positive clinical learning environments were analysed using the steps of concept analysis suggested by Walker and Avant (2011:158). Analysis of the main concepts selected for the development of the Positive clinical Learning Environment model enabled the researcher to identify their uses and the defining attributes. The analysis also made it possible for the researcher to develop operational definitions so that the concepts in the model are easily understandable and clear. The next chapter discusses model development, description and evaluation.
CHAPTER 6
DEVELOPMENT, DESCRIPTION AND EVALUATION OF THE MODEL

6.1. INTRODUCTION
This Chapter designates the beginning of phase 2, model development and
description, and phase 3, model evaluation of this study. In this chapter, the model
development process, its structural description and evaluation are discussed.
Conceptualisation of the main concepts was achieved using the concept analysis
strategy suggested by Walker and Avant (2011:160). The main concepts of Positive
Clinical Learning Environment model namely, ‘supportive interpersonal
relationships; effective clinical supervision; healthy work environment and
partnerships’ emerged from the themes.

The development of the model was achieved by aligning the main concepts and the
theoretical framework. The researcher used the following theories, namely the
Donabedian’s theory of quality improvement within the healthcare setting (Ayanian &
Markel, 2016:206), the Benner’s theory of skills acquisition in nursing clinical practice
(Brown, 2017:17) and the Dickoff et al’s (1968) theory cited by Meleis (2012:129)
were used as a basis to form a theoretical framework. The theoretical framework will
be discussed hereafter.

6.2. THEORETICAL FRAMEWORK
A theoretical framework is a structure that guides the direction and logic of a specific
study, and it can be described by means of a diagram or map to demonstrate the
concepts and their relationships (Lunenburg, 2011:2; Gray et al., 2017:140). The
theoretical framework underpins the model in this study by making use of the
Donabedian’s theory of quality improvement within the healthcare setting (Ayanian &
Markel, 2016:206), and the Benner’s theory of skills acquisition in clinical nursing
practice (Brown, 2017:17) to indicate the relationship between the theoretical
concepts identified in this study and Dickoff’s survey list in Meleis (2012:129).

6.2.1. Donabedian’s Structure-Process-Outcomes theory.
The quality improvement theory using the ‘Structure-Process-Outcomes’ components, was developed by the theorist Avedis Donabedian in 1980 to define the concept of ‘quality’ in health care settings, its components, and the process of evaluating it (El Haj, Lamrini & Rais, 2013:17). Donabedian’s assumptions were that the healthcare quality within an institution could not be considered by looking at one aspect in isolation, but by taking into consideration of all aspects. His belief was that the structure, process and outcome have a direct influence on one another (El Haj et al, 2013:17). The ‘Structure-Process-Outcome’ components, depicted in figure 6.1, and their application to the Positive Clinical Learning Environment, are discussed next.

**Figure 6.1: Donabedian’s structure-process-outcome theory, adapted from Donabedian (1980)**

- **Structure component**
  The ‘structure’ component refers to the settings or the environment in which health care is provided, as well as adequacy of its organisation with regard to human (staffing) and material resources (budget, equipment and safety devices) (Ayanian & Markel, 2016:206). The structure component also involves the characteristics of the
providers of care. These pertain to staff’s educational status, training, experience, qualifications, as well as the administrative system (El Haj et al., 2013:18; Ayanian & Markel, 2016:206). Donabedian also highlights the need to assess quality of the structural component by means of valid and reproducible measures that could be linked to patients’ outcomes (Ayanian & Markel, 2016:206).

In the Positive Clinical learning Environment model, the ‘structure’ component pertains to the structural components of clinical learning environment such as, the characteristics of the providers of clinical teaching, who in this context are the clinical staff, especially the registered nurses. These characteristics also include the educational status, training, experience, and qualifications of the hospital registered nurses. Other aspects of the structural components in the Positive Clinical Learning model include the ward organisational structures, such as, quality and safety of the clinical learning environment, human and material resources, availability of clinical learning opportunities and healthy work environment (Parker & Smith, 2012:3).

Lack of material resources and equipment was cited in this study as one of the aspects that contributed to negative CLE. As a result, this prevents the registered nurses from providing the nursing students with effective clinical teaching. Material resources should be provided so that quality patient care can be achieved, at the same time benefiting the nursing students’ learning experiences. In the Positive CLE model, the registered nurses would be provided with necessary skills and be empowered so that they can be able to help the nursing students to achieve learning outcomes and have positive learning experiences.

The organisational structures, especially the ward manager leadership style, as well as the characteristics of the hospital registered nurses are considered very important in the advancement of the nursing students’ clinical learning. This was evident in a study by Dale et al. (2013:2) to explore the factors facilitating good learning experiences in clinical practice. The findings of that study indicated that the nursing students valued a ward that has a student-friendly atmosphere.
According to Lawrence (2014:268), an organisational culture that holds clinical learning in high regard is an indication of how staff is valued in that ward. In agreement, Nursing Times (2013:19) points out that an environment that is unsafe, unsupportive, unstructured, and overwhelming can leave the nursing students feeling anxious and very vulnerable. Cooper et al. (2011:3) also concur, emphasising the importance of having a positive clinical learning environment in order to make the nursing profession attractive.

In South Africa, nursing shortages, unrealistic workloads, poorly equipped facilities and unsafe working conditions were not only identified as factors contributing to poor clinical practice environment, but also affecting the quality of students’ clinical learning (The National Strategic Plan for Nurse Education, Training and Practice, 2012:27). The Positive CLE model will ensure that proper structural components such as material resources and functioning equipment are available. A healthy work environment will enable the skilled registered nurses and other clinical staff to provide quality patient care that will ensure that nursing students learn proper nursing care. A healthy work environment will also ensure that the empowered registered nurse work harmoniously with students and provide them with the necessary guidance and competencies. The NEI clinical facilitators will ensure that the nursing students are well prepared and self-directed before they are placed in the clinical learning practice.

- **Process component**

The ‘process’ component of Donabedian’s theory refers to overall administration of activities going on within the health care setting (Liu et al., 2013:3). The process component includes all the activities that take place during the delivery of care to the patient. Evaluation of quality in terms of process component should be distinguished between the appropriateness of the actions and the skill used to carry out those actions (El Haj et al., 2013:21). Darcy Associates’ (2009:75) guidelines on best practice CLE recommends that evaluation of quality within the clinical learning environment should also include the reflection of skill, knowledge and the clinical competencies of staff based on the current evidence-based practice. Applied within the context of this study, the ‘process’ component pertains to the activities that take
place during the nursing students’ clinical facilitation in the clinical learning environment. The activities involved include:

- The planning, organising and the implementation of the nursing students’ clinical programmes.
- Collaborative partnership between the hospital and the NEI Nursing Science Department to ensure that programmes are successfully implemented. This partnership should be based respect, trust and open communication.
- Effective clinical supervision, including other instructional strategies

According to The National Strategic Plan for Nurse Education, Training and Practice, (2012:21) of South Africa, general lack of good role models has led to insufficient supervision and management of students. Majority of nursing students in South Africa have raised their dissatisfaction with their clinical facilitation and accompaniment. This has as a result, exposed them to high level of stress (The National Strategic Plan for Nurse Education, Training and Practice, 2012:22). The importance of positive clinical learning environment for the nursing students cannot be over emphasised. This is very crucial since the clinical learning environment is where they should be trained into competent and independent practitioners (Dale et al., 2013:1).

In South Africa, the period that the nursing students have to spend in work-based learning is about 4000 notional hours (SANC R425 guide, 1994). In order to make the nursing students’ learning in the clinical learning environment effective, memorable and fruitful, Dale et al. (2013:1) suggest that the clinical teachers must have a supportive and a committed supervisory relationship with students. The clinical teachers must also provide the nursing students with regular feedback and practical advices, as well as providing them with a platform to reflect-on-action. These actions will promote the nursing students’ clinical competencies, confidence and increased self-esteem (Dale et al., 2013:1).

- **Outcome component**
The Donabedian’s outcome’ component implies the end results or change in the client’s status as affected by the structural and process standards (Ayanian & Markel, 2016:206). El Haj et al. (2013:21) postulate that the outcome measures used to assess the quality of care includes health-status indicators, cost of care and patient satisfaction with care. The outcome component is affected by the structural and process component. With that viewpoint, it can be argued that the quality of outcome component, be it good or poor, is largely dependent on the quality of both the structure and the process component (Ayanian & Markel, 2016:206).

The outcome component in the context of the current study represents the competencies development, as well as short and long-term goal achievement. The short-term outcomes pertain to the nursing students’ satisfaction with clinical learning and the achievement of positive learning outcomes at the end of their clinical placement. The end results in this context refer to long-term outcomes which represent a clinically competent nursing graduate that the NEI produce at the end of the four-year nurse training. The quality of the nursing graduate is the reflection of the quality of the clinical learning environment that they were exposed to during their training (Nash, 2007:70). It is widely acknowledged in the literature that the clinical learning environment that provides the nursing students with positive learning experiences are not only crucial for students’ clinical learning, but also important for future graduate recruitment into the nursing profession (Tomietto et al., 2014:43; Zakaria & Gheith, 2015:37; Papastavrou et al., 2016:3).

The scope of practice of a registered nurse in South Africa describes her/him as: “a person who is qualified and competent to independently practise comprehensive nursing in the manner and to the level prescribed and who is capable of assuming responsibility and accountability for such practice” (SANC, 2005:25). However, according to Papastavrou et al. (2010:177), tertiary institutions offering the undergraduate nursing education worldwide are faced with the declining clinical education because of the lack of positive clinical learning environments. This has as a result given rise to a calibre of newly registered nurses who are clinically

This study assessed how the nursing students and the clinical registered nurses perceived the clinical learning environments (structural and process component). Their views were also sought with regard to their preferred clinical learning environment that could have positive impact on their future role as registered nurses (outcome component). The summary of the structure-process-outcome concepts as applied to the Positive Clinical Learning Environment model are illustrated in Table 6.1
Table 6.1: Summary of application of the Structure-Process-Outcome theory to the Positive CLE model (Ayanian & Markel, 2016:206)

<table>
<thead>
<tr>
<th>COMPONENTS OF THE DONABEDIAN’S THEORY ‘QUALITY IN HEALTH CARE SETTINGS’</th>
<th>COMPONENTS OF POSITIVE CLINICAL LEARNING ENVIRONMENT MODEL ‘QUALITY IN CLINICAL NURSING EDUCATION’</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STRUCTURE</strong></td>
<td></td>
</tr>
<tr>
<td>• Settings or the environment in which health care is provided</td>
<td>Healthy work environment</td>
</tr>
<tr>
<td>• Human (staffing) and material resources (budget, equipment and safety devices)</td>
<td>• A quality, safe and warm environment</td>
</tr>
<tr>
<td>• Staff’s educational status, training, experience, qualifications - Administrative system</td>
<td>• Adequate resources (human and material)</td>
</tr>
<tr>
<td></td>
<td>• Appropriately trained, valued and skilled staff</td>
</tr>
<tr>
<td></td>
<td>• Well prepared, self-directed and motivated nursing students</td>
</tr>
<tr>
<td><strong>PROCESS</strong></td>
<td></td>
</tr>
<tr>
<td>• All the activities that takes place during the delivery of care to the patient.</td>
<td>• All activities that takes place during the nursing students’ clinical facilitation in the clinical learning environment:</td>
</tr>
<tr>
<td></td>
<td>• Planning, organising and the implementation of clinical programmes</td>
</tr>
<tr>
<td></td>
<td>• <strong>Supportive student-staff interpersonal relationship</strong> based on mutual respect</td>
</tr>
<tr>
<td></td>
<td>• <strong>Effective clinical supervision</strong> strategies</td>
</tr>
<tr>
<td></td>
<td>• Effective communication and feedback</td>
</tr>
<tr>
<td></td>
<td>• Collaborative <strong>partnerships</strong> amongst all stakeholders</td>
</tr>
<tr>
<td><strong>OUTCOME</strong></td>
<td></td>
</tr>
<tr>
<td>• End results or change in the client’s status as affected by the structural and process standards</td>
<td>• Self-actualisation and emancipated nursing graduate</td>
</tr>
<tr>
<td>• Health-status indicators, cost of care and patient satisfaction with care.</td>
<td>• Highly skilled practitioner and competent practitioners</td>
</tr>
<tr>
<td></td>
<td>• Students’ satisfaction with clinical learning and sense of belonging.</td>
</tr>
</tbody>
</table>
6.2.2. Benner's From Novice to Expert theory

This study utilised the concepts, ‘Novice to Expert’ of the Benner’s theory of skills acquisition (Sunkes, 2013:6) to conceptualise the advancement of the nursing students to acquire skills according to their level of training within a positive clinical learning environment as depicted in Figure 6.2

![Novice to Expert Model](image)

**Figure 6.2: Novice to Expert Model, conceptualised from Sunkes (2013:5)**

The ‘Novice to Expert’ concepts are incorporated within the outcome component of the structure-process-outcome theory of Donabedian’s quality of health care service. According to Khan and Ramachandran (2012:3) the ‘From Novice to Expert’ model was first developed in 1980 by the Dreyfus brothers to describe five levels of skills acquisition in pilots’ training. The Dreyfus brothers as noted by Khan and Ramachandran (2012:3) posited that while acquiring skills during training, students move through five levels of proficiency namely, the novice or beginner, advanced beginner, competent, proficient and expert. However, the Dreyfus brothers cautioned that the skills acquisition can only take place through true experience of the situation (Brown, 2017:19).

The skills acquisition model has since been adapted in various fields such as, driving and playing chess, as well as for clinical nursing practice by Benner (Khan &
Ramachandran, 2012:3; Sunkes, 2013:6). According to Brown (2017:17) Benners’ interest in clinical nursing practice was aimed at identifying the ‘know-how’ of nursing clinical practice by studying its influence on knowledge acquisition, as well as to describe the manner in which knowledge is acquired. The same researcher posits further that Benner concluded that clinical knowledge builds and develops over time within nursing practice, as a result of the experience acquired through interchange between the relationships and situations taking place within the contexts.

The Benner’s theory was employed in this study to demonstrate the evolvement of a nursing student influenced by nature of the clinical learning environment, from being a novice as a first year baccalaureate nursing student, until he/she becomes an expert nurse who is a newly qualified, independent and emancipated registered nurse. In the Positive Clinical Learning Environment model, Benner’s theory of ‘From novice to expert’ was applied to describe the developmental stages that the learner goes through to acquire clinical nursing skills when in clinical practice. A move through these levels, sees a learner who is initially clueless as far as clinical nursing practice is concerned, become clinically competent (Brown, 2017:19). However, through the encounter with a true clinical experience, the learner will be able to develop and transform from a beginner to an expert who can manage a situation intuitively and holistically (Sunkes, 2013:6). In addition, Sunkes (2013:6) underscores that there will be notable changes in terms of skill performance as the learner progresses through these levels. The following changes will be noted in three aspects of skill performances:

- In the first aspect, the learner will move from relying on nonconcrete principles to concrete experience.
- The second aspect will see a learner starting to perceive situations as a whole, rather than separate and equal pieces
- In the third and last aspect, the learner’s performance will change from being of an observer in a situation, to becoming an active participant

The following discussion focuses on how the “From Novice to Expert” theory was applied to the context of this study to explain the developmental stages that the
nursing students goes through within the clinical learning environment. Factors that can retard or promote the nursing students’ progression from the novice practitioner, to an expert practitioner are also discussed.

The concepts: novice to expert are described differently to how Benner (1984:26) initially introduced them so as to suit the context of this study. In this study, the concept of novice refers to a first year nursing student, the advanced beginner refers to a second year nursing student, competent practitioner refers to a third year nursing student, while a proficient practitioner refers to a fourth year nursing student. Lastly, the concept of an expert practitioner refers to a newly qualified registered nurse, commonly referred to in South Africa as Community Service Practitioner (SANC, R765, section 40 of the Nursing Act, 2005 (Act No. 33 of 2005).

- **Novice - first year baccalaureate nursing student**

  Benner (1984) describes a novice as a beginner with no experience or have no background knowledge of a situation they are expected to function or perform in. The first year nursing students enter the clinical learning environment for the first time in their lives as novice nurses. The novice practitioner relies on strict rules to inform their practice, thus their performance is limited and inflexible (Sunkes, 2013:6). The novice nurse’s performance is depended on others’ direct supervision and guidance at all times. They want to be instructed on what to do and be demonstrated on how to do it. With proper support, guidance and effective supervision, all representing a positive clinical learning environment, Kaphagawani and Useh (2013:183) postulate that the first year baccalaureate nursing student can be able to cope well and progress to the next level of skill acquisition of advanced beginner.

- **Advanced beginner - second year baccalaureate nursing student**

  According to Sunkes (2013:6) an advanced beginner is a learner who can demonstrates acceptable performance. The advanced beginner recognises actual situations from previous experience and are able to deal with them based on that. The learner on this level is able to perform routine tasks under indirect supervision of their seniors. The second year baccalaureate nursing student though still seeing situations as separate, is at least able to perform routine basic tasks indirectly
supervised, basing their performance on the experienced gained in their first year of exposure and repeated allocations in the wards. To allow the second year baccalaureate nursing student to be confident and be able to advance to the competent stage, Kaphagawani and Useh (2013:183) suggest that they must be provided with and be guided in performing challenging tasks.

- **Competent practitioner - third year baccalaureate nursing student**
  A competent practitioner according to Sunkes (2013:6 is someone who has a 2-3 years’ experience on the job in the same area. The competent nurse differs from the novice and the advanced beginner nurses in that they plan their work according to relevant situations, instead of including all the aspects of the situation. The third year baccalaureate nursing student by virtue of being in third year of study falls within the description of Benner’s (1984) competent nurse. The Outcomes based Baccalaureate curriculum (2006:54) states that a learner at third level should “be able to function independently and integrate knowledge and skill in all health care settings within the ethical and legal scope of practice of the nurse/midwife/psychiatric and community nurse practice. The Outcome based curriculum (2006:54) states further that the third year baccalaureate nursing student should be able to function according to the guidelines of the institution as part of the multidisciplinary team caring for individuals of all ages”. Since the third year baccalaureate nursing student can function independently most of the time, they should be given a chance to work under the indirect supervision and regarded as part of the team so that they can be motivated (Kaphagawani & Useh, 2013:183).

- **Proficient practitioner – fourth year baccalaureate nursing student**
  Proficient practitioner is defined as one who perceives and understands situations as whole, instead of aspects. The learner at this level understand situation holistically and plans for these situations accordingly (Benner, 1984:27). The proficient nurse at this level has gained enough experience to can anticipate typical situations in clinical learning environment, as well as relating them to previous experiences. The fourth year baccalaureate nursing student is expected on completion of training, to “be able to effectively manage and organise nursing care in all settings as an independent practitioner and leader of a nursing team within the scope of practice of the
nurse/midwife. The fourth year baccalaureate nursing student is also expected to function within the guidelines of the institution as part of the multidisciplinary health team" (Outcome based BCUR curriculum, 2006:75). The nursing students at this level should be given enough opportunity to manage the units, and given feedback to prepare them for their future role of being registered nurses (Kaphagawani & Useh, 2013:183). This will ensure that they become proficient practitioners.

- **Expert – community service practitioner**

An expert is a practitioner who functions independently informed by many years of experience, and does not rely on principles or guidelines to solve problems (Sunkes, 2013:7). The performance of the expert nurse in the clinical learning environment is efficient, flexible and very proficient (Lyon, 2015:92). The expert nurse responds to problematic situations reactively instead of premeditating over them. Brown (2017:20) maintain that although majority of the nursing students are unlikely to reach the level of being considered expert practitioner, they can however learn to grasp the clinical situation intuitively with more exposure to the clinical practice. Lyon (2015:101 in agreement points out that with intrinsic ability and the critical amount of experience, it is possible for the novice learner to advance to the level of an expert learner. Lyon (2015:101) maintains further that for the novice learner to advance to the level of an expert, he/she must be exposed to a positive clinical learning environment, coupled with the supportive interpersonal relationships with peers and clinical supervisors. Hence, the use of an expert by the researcher in this study to demonstrate that in a positive clinical learning environment, nursing students may be able to reach the level of being expert once they graduate and are newly qualified registered nurses.

Several studies have noted with concern the lack of clinical competencies observed in the newly qualified registered nurse, who should rightfully be considered expert nurses as required by the scope of practice of a registered nurse (Liou & Cheng, 2014:140; Al-Mahmoud, Shereen, Dorgham & El-Megeed, 2013:151; Snell & Daniel, 2014:142). According to The National Strategic Plan for Nursing Education, Training and Practice (2012:21) the community service nurses are not skilled enough to function as expected. The conceptualisation of Benners' theory and its application to this study is summarised in Table 6.2.
Factors hindering and promoting students’ skill acquisition

Ali et al. (2015:1) postulate that the nursing students come into contact with the realities of their function in clinical learning environment, and develop opinions about their career prospects. Their ability to perform clinical skills and progression to the next level of skills acquisition according to Khan and Ramachandran (2012:3) is influenced by several factors, including the quality of the clinical learning environment they are exposed to. Viewed in the context of the Donabedian’s theory as applied in this study, these factors might be related to the structure component consisting of work environment; resources; characteristics of clinical staff, as well as the attitude of nursing students towards clinical learning.

Components of the ward that can contribute effectively towards the nursing students’ clinical skills acquisition include, a safe and pleasant atmosphere; co-operative staff and patients; good interpersonal relationship; mutual respect and trust among staff, facilitators and students; good leadership style, as well as the approachability of the unit manager (Awuah-Peasah et al. 2013:24; Papastavrou et al., 2010:177). The nursing students in this study indicated that they preferred a clinical learning environment that is safe and pleasant. They also wished for the clinical staff to be supportive, approachable; non-discriminatory and to treat them with love and respect. Altmann (2006:2) points out that progression from being a novice to the level where one is considered an expert, is not a given, but depends on other variables such as a positive clinical learning environment.

Baraz et al. (2015:2) point out that even though the clinical learning environment can be beneficial in terms of student learning, it can at times be challenging, unpredictable and be very stressful for the nursing students. Stressful or negative clinical learning environment may affect the performance of the nursing students, thus retarding their movement to the next level of skill acquisition negatively. Several studies have shown that most of the clinical learning environments fail to provide nursing students with a positive clinical learning experience (Labrague, 2013:425; Dale et al., 2013:2; Baraz et al., 2015:2). Ali et al. (2015:2) point out that there are a variety of influences that can hinder or promote progress of nursing student through
all these levels. A study by Baraz et al. (2016:3) in Iran to determine the learning challenges of nursing students in clinical practice reported the following factors as hindrance to skill acquisition:

- Inadequate clinical supervision
- Inappropriate instructional strategies
- Unsupportive learning environment
- Stressful psychosocial environment
- Traditionalism in clinical practice
- Negative interaction with clinical instructors

The application of Benners’ theory of From Novice to expert as applied to the Positive clinical Learning Environment model is depicted in Table 6.2 below.

**Table 6.2: Summary of application of From Novice to Expert to Positive CLE model adapted from Sunkes (2013:7)**

<table>
<thead>
<tr>
<th>Components of Benners’ theory</th>
<th>Application to this study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novice</td>
<td>First year baccalaureate nursing student</td>
</tr>
<tr>
<td>Advanced practitioner</td>
<td>Second year baccalaureate nursing student</td>
</tr>
<tr>
<td>Competent practitioner</td>
<td>Third year baccalaureate nursing student</td>
</tr>
<tr>
<td>Proficient practitioner</td>
<td>Fourth year baccalaureate nursing student</td>
</tr>
<tr>
<td>Expert</td>
<td>Newly qualified registered nurse/Community service practitioner</td>
</tr>
</tbody>
</table>

**6.2.3. Dickoff et al.’s (1968) survey list**

As previously stated in section 6.2, the concepts in the theoretical framework guiding this study were integrated with the associated concepts from the classification list by Dickoff et al. (1968) cited by Meleis (2012:129) illustrated in Figure 6.3.
The following section discusses the concept in the survey list and how they were applied in this study.

According to Meleis (2012:128) the theorists, Dickoff et al. (1968) believed that in order for the developed model to be beneficial to the nursing practice, it should be action-orientated and have a goal. Therefore, Dickoff et al. (1968) referred to their framework as a situation-producing theory (Meleis, 2012:128). The situation-producing framework according to Dickoff et al (1968) cited by Meleis (2012:129) is intended to bring about the desired goal for the nursing practice by posing the six crucial questions as stated below. The model to promote positive clinical learning environment can be regarded as situation-producing since it was developed with the goal of producing a clinically competent, self-actualised and emancipated nursing graduate. Hence the researcher found the Dickoff et al. (1968) survey list relevant to conceptualise and classify the Positive Clinical Learning Environments model’s concepts in relation to the clinical learning environments’ activities.
The six crucial questions are:

- **Agent**: Who or what performs the activity?
- **Recipient**: Who or what benefits from the activity?
- **Context**: In what context is the activity performed?
- **Target**: What is the targeted outcome of the activity?
- **Procedure**: What is the guiding procedure, protocol or technique of the activity?
- **Dynamic**: What is the energy source for the activity?

The **agent** according to Meleis (2012:130) includes all those who have the internal and external resources and performing activities to bring the desired goal. The **recipient** according to Meleis (2012:130) seeks to answer the question of who receives the prescriptions of the activity from the agent in order to bring about the desired goal. The recipient can represent anything, sick or well people, objects, interacting or non-interacting, being the recipients of the activities done by registered nurses, or people other than nurses with the aim of achieving the desired goal (Meleis, 2012:130). The question about in what **context** is the activity performed seeks to bring clarity with regard to the situation in which the agent and the recipients’ activities takes place in order to bring the desired goal (Meleis, 2012:130). The context includes all the variables to be considered during the engagement between the agent and the recipient in order to bring the desired change or goal (Meleis, 2012:130). The **procedure** pertains to the processes involved in achieving the desired goal in terms of policies and guidelines. The procedure also includes all the steps that should be taken by the agent in order for the desired goal to be realised (Meleis, 2012:130). The **dynamic** according to Meleis (2012:130) relates to the motivating factors driving the performance of activities towards the attainment of the desired goal. The **terminus** in the survey list relates to the end point of the performed activity between the agent and recipient (Meleis, 2012:130).

In this study, the concepts within the Positive CLE model were classified as follows: the hospital registered nurses and the NEI clinical facilitators are **agents** who...
perform the clinical teaching and supervision activity within the clinical practice. The nursing students are the recipients of the activity since they receive clinical guidance from the clinical teachers. The nursing students are also regarded as agents within the Positive Clinical Learning Environment model because they have to be self-directed in their learning. The hospitals’ wards and the NEI nursing department are the contexts in which clinical teaching takes place. The procedures pertaining to clinical teaching and learning encapsulate the planning, organising and implementation of the nursing clinical programme; provision of effective clinical supervision; supportive interpersonal relationship and collaborative partnerships. The quality clinical nursing education, quality patient care, as well as conducive work and learning environment as dynamics since they are the motivating factors of the activity. The terminus or the outcome of clinical teaching and learning is a skilled and clinically competent nurse graduate. Table 6.3 illustrates the conceptualisation and application of concepts in the survey list to the concepts of the Positive Clinical Learning Environment model.

Table 6.3: Summary of application of Dickoff et al.’s (1968) survey list to the Positive CLE model

<table>
<thead>
<tr>
<th>Dickoff’s survey list</th>
<th>Application to this study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent</td>
<td>Hospital registered nurses, other members of clinical staff and the NEI clinical facilitators, as well as nursing students</td>
</tr>
<tr>
<td>Recipients</td>
<td>Nursing students</td>
</tr>
<tr>
<td>Context</td>
<td>Hospital and NEI clinical learning environments</td>
</tr>
<tr>
<td>Procedure</td>
<td>Planning, organising and implementation of the nursing clinical programme; provision of effective clinical supervision; supportive interpersonal relationship and collaborative partnerships</td>
</tr>
<tr>
<td>Dynamic</td>
<td>The quality clinical nursing education, quality patient care, conducive work and learning environment</td>
</tr>
<tr>
<td>Terminus</td>
<td>A clinically competent and independent nurse graduate</td>
</tr>
</tbody>
</table>
Figure 6.4 below illustrates the process followed in the identification of the main concepts, and the development of the Positive Clinical Learning Environment model according to the three phases of this study.

**PHASE 1**
Assessing the perceptions and the preferences of the BCUR nursing students and the hospital R/N regarding the CLE through literature review and CLE assessment questionnaire. Identification of main concepts stated below:

**PHASE 2**
Model development: Donabedians' structure-process-standard, Benners' From Novice to Expert theories and Dickoff et al. survey list

**PHASE 3**
Model evaluation and refinement (Chinn and Kramer (2011))

**CONCEPTUALISATION**
Concept analysis (Walker and Avant (2011))

**Figure 6.4: Model development process according to phases**
The structure of the Positive Clinical Learning Environment model as it emerged from the relationships between the concepts from the empiric findings, theoretical framework and Dickoff et al (1968) survey list is depicted in Figure 6.5. The model is depicted again in Section 6.3.4 as Figure 6.12 in order for the reader to make easy correlation during structural description. The description of the model is presented next in Section 6.3
Figure 6.5: Schematic representation of Positive Clinical Learning Environment Model.
6.3. **MODEL DESCRIPTION**

The Positive Clinical Learning Environment model is described in accordance with the guidelines suggested by Chinn and Kramer (2011:184) namely: purpose; context; assumptions; concepts and their definitions; relationships and structural description.

6.3.1. **Purpose**

The main purpose of this model is to promote positive clinical learning environments for nursing students at a tertiary institution. The ultimate goal is for the tertiary institutions across South Africa to produce nursing graduates who are clinically competent because of positive clinical learning environments. Consistent with literature, the findings of this study have shown that the nursing students perceived their clinical learning environments in a negative light. According to the National Strategic Plan for Nurse Education and Training (2012:21) students are dissatisfied about their clinical learning environments. The students are also said to experience high levels of stress (Nasrin, et al., 2012:3). As such, it was therefore necessary to come up with strategies that would promote positive clinical learning environments, therefore the development of Positive Clinical Learning Environment model. The Positive Clinical Learning Environment model is also envisaged to provide a frame of reference for the effective clinical teaching of the nursing students at tertiary.

6.3.2. **Concepts and definitions**

The Positive Clinical Learning Environment model’s concepts are classified as follows: the hospital registered nurses and NEI clinical facilitators are classified as agents. The nursing students are classified as recipients, as well as agents. The hospital clinical learning environments and the NEI nursing department constitute the contexts. Planning, organising and implementation of the clinical programme, provision of effective clinical supervision; supportive interpersonal relationship and collaborative partnerships are classified as procedures. Quality clinical nursing education, quality patient care, as well as conducive work and learning environment comprise the dynamics. The terminus is a clinically skilled and competent nurse graduate. An outline of the classification of the concepts and their definitions as applied in the Positive Clinical Learning Environment model follows:
6.3.2.1. Agents

In the Positive Clinical Learning Environment model, the agents pertain to: the hospital registered nurses; other clinical staff members; the NEI clinical facilitators, as well as nursing students. Viewed in the context of the Donabedians’ structure-process-outcome theory; all these agents form part of the structural component of the model. Figure 6.6 depicts the agents forming the Positive Clinical Learning Environment model. Outlined below is the description and definitions of individual concepts.

- **Hospital registered nurses as agents**

A registered nurse is a person registered as a nurse with SANC under section 16 of the Nursing Act 33 of 2005. A registered nurse in this study refers to a nurse registered under section 16 of Nursing Act 33 of 2005 and was practicing as such at the hospital during the period of study period. The registered nurses are supposed to attend to the nursing students’ learning needs so that they can acquire clinical skills. The Nursing Act No. 33 of 2005 mandates the registered nurses to provide the nursing students with clinical teaching. In order for the desired goal to be realised, the registered nurses must provide the nursing students with clinical teaching within a supportive learning environment.

Several authors have acknowledged the central role that the hospital registered nurses can play to ensure a positive clinical learning environment (Darcy Associates, 2009:16; Bryan et al., 2013:43; Baraz et al., 2015:2). The hospital registered nurses can ensure that the nursing students’ clinical learning is effective by being good role models, and providing effective teaching and supervisory support. The quality of interaction between the nursing students as recipients of clinical teaching, and the hospital registered nurses as the agents of disseminating that education, can have either profound negative or positive profound outcomes on the learning process (Ali, 2012:15).

- **NEI clinical facilitators as agents**
Clinical teaching is an integral component of nursing education provided by nurse educators in clinical practice (Bigdeli et al., 2015:2). Nurse educator is a professional nurse who holds a qualification in nursing education registered and is registered with SANC as such (SANC, 2014:1). The context in which the nurse educator can function includes, the University, University of technology, nursing college, nursing school or health institution. The nurse educator can function in these contexts as a lecturer, educator, researcher, manager or specialist (SANC, 2014:1).

In the Positive Clinical Learning Environment model, the concept of clinical facilitator was used to refer to the nurse educator holding a nursing education qualification and registered as such with SANC. The nurse educator referred to herein is employed by the University to facilitate the nursing students’ clinical programme. At the selected NEI, the nurse educators facilitating the nursing students’ clinical education are commonly referred to as clinical facilitators. As such, the concept of clinical facilitator was used in the context of this study to refer to the clinical nurse educator employed by the University so as to maintain consistency. The clinical facilitators are also the agents in a sense that they are the ‘owners’ and facilitators of the clinical programme (Nash, 2007:172). As the agents of the clinical teaching, the selected NEI clinical facilitators must develop collegial working relationships with the hospital clinical staff to promote positive learning environments (SANC, 2014:2). The NEI clinical facilitators should provide the hospital registered nurses with the students’ learning outcomes. They must also ensure that they offer the needed support so that the nursing students can have positive learning outcomes. Therefore, nursing students have to be exposed to diverse clinical learning opportunities found in clinical practice. This is to enable them to integrate theory and practice, as well as to acquire knowledge and build professional values through their experiences Kern, Montgomery, Mossey and Bailey (2014:133).

- Nursing students as agents
According to Darcy Associates (2009:21) the students also form part of the structural component of the clinical learning environment, as such, they are considered as agents. The nursing students have to be motivated to learn, be self-directed and willing to adapt. The nursing students’ willingness to learn will also enable the
hospital clinical staff and the NEI clinical facilitators to offer the needed support. The nursing students engage and interact with the hospital registered nurses and other members of the clinical team in the clinical practice. Their perception of the clinical learning environment can be used to improve students’ clinical teaching (Darcy Associates, 2009:21).

**Figure 6.6: Agents in the Positive Clinical Learning Environment model**

### 6.3.2.2. Recipient

The recipients in the Positive Clinical Learning Environment model are the nursing students.

- **The nursing student as recipients**

  The nursing students as recipients of clinical education are placed in clinical practice in order to gain practical skills and meet their clinical learning objectives. Exposure in the clinical practice enables them to achieve expected learning outcomes. A nursing student is a person who follows a four year comprehensive Bachelor degree course leading to registration as a nurse (general, psychiatry and community) and midwife (SANC, 1985 as amended). The nursing student in this study implies a person who follows the course stated above, and in addition, is in the second, third and fourth year of study at the selected NEI during the study period.
The nursing students receive clinical teaching and support from the hospital registered nurses, other clinical staff members and their clinical facilitators. During the process of acquiring clinical skills, the nursing students interact with these agents, and they form interpersonal relationships with them. The relationship that exists between the nursing student and the agents (clinical teachers) is the most important factor that influence students' motivation to learn (Bryan et al., 2013:43). The supportive interpersonal relationship between the nursing students and their clinical teachers (agents) will ensure that the ultimate goal of becoming clinically competent is achieved.

The quality of the interaction between the agents (clinical teachers) and the recipient (nursing student) in the clinical learning environment has the potential to either promote or hamper the students' learning experiences and outcomes (Ali, 2012:15). If the clinical learning environment is not positive, the nursing students will not be able to realise their learning outcomes. Figure 6.7 represents the nursing student as the recipient in the Positive Clinical Learning Environment model.

![Figure 6.7: Nursing students as recipients](image)

6.3.2.3. Context

The context as it is applied within the Positive Clinical Learning Environment model refers to the clinical learning environment and its influence on the nursing students'
learning experiences and outcomes. Chan (2002) as cited by Flott and Linden (2015:503) defined clinical learning environment as the interactive network of forces within the clinical setting that influences students’ learning outcomes. The clinical learning environment according to Ali et al. (2015:1) pertain to everything that the nursing students are exposed to in the clinical practice. The interaction that takes place in the clinical practice between the nursing student (recipient) and the clinical teacher or other members of clinical staff (agents), for the purpose of equipping them (recipients) with clinical competencies, can be influenced negatively or positively by the clinical learning environments. The model to promote positive clinical learning environments is intended to provide the nursing students with the clinical learning environments that can influence their learning experiences and outcomes positively, consequently becoming clinically competent.

- **The hospital as the context**

The institution that the clinical learning environments pertain to in this study is an academic hospital as designated by National Health Act (Act no. 61 of 2003). The clinical learning environments within this hospital comprise of the following: the learning conditions within the medical and surgical wards; adult and paediatric wards, operating theatre (OT), outpatient departments (OPD), intensive care unit (ICU), maternity and accident and emergency (A&E) unit. The definition also includes the physical and psychosocial conditions affecting the nursing students’ learning experiences and outcomes within these units. The nursing students are placed within these clinical learning environments in order to be exposed to real and diverse clinical learning opportunities that they have to offer.

- **NEI nursing department as the context**

The NEI nursing department provides nursing education and training under the umbrella of the Higher Education Act No.101 of 1997 and the South African Qualification Authority (SAQA) Act No.58 of 1995. The context in which the selected NEI nursing department operates under these legal framework is through the provision of a comprehensive four year Bachelors’ Degree in General nursing, Psychiatry and Community Health Nursing and Midwifery, in accordance with SANC Regulation No. R425 of 22 February 1985 as amended. The selected NEI nursing
department has a memorandum of agreement with the academic hospital to place nursing students in the clinical learning environment. The students’ placement in clinical practice is to ensure that they experience genuine nursing on real patients offered by the hospital. It is only through clinical practice that the nursing students are able to acquire knowledge, understanding, and skills necessary to practice appropriate and quality nursing care on patients with multiple and complex health needs (Zakaria & Gheith, 2015:35).

The clinical teaching for the nursing students (recipients) is provided by the registered nurses (agents) in a hospital ward or community health care service based on the programmes guidelines from the University. The skill laboratory of the nursing science department is used by the clinical facilitators to introduce the nursing students to the required psychomotor skills according to their level of studies prior to their placement in clinical practice. Viewed within the theoretical framework guiding this study (section 6.2.), the structural component forms part of the context. Included in the structural component are the physical structure; resources, both human and material; as well as the staff’s educational status, training, experience and their qualifications (Ayanian & Markel, 2016:206). Figure 6.8 represents the contexts of the Positive Clinical Learning Environment model.

![Figure 6.8: Context of the model for Positive CLE model](image)

### 6.3.2.4. Procedure

The procedure in the context of the Positive Clinical Learning Environment model refers to the ‘process’ component of the theoretical framework guiding this study.
These includes all steps and strategies that the hospital registered nurses and NEI clinical facilitators have to take or apply in order to enable the nursing students to achieve positive learning outcomes and be clinically competent. For example, these might include: the planning, organising and the implementation of clinical teaching programs; effective clinical supervision and healthy working relationship between the hospital clinical staff and the NEI clinical facilitators, as well as the nursing students.

The procedure also includes the collaborative partnership that should exists between clinical staff and the academic staff from NEI nursing science department so that they can work together to produce a clinically competent nurse graduate who can function independently. Collaboration between clinical and academic staff entails a partnership based on commitment, mutual respect and trust (Nash, 2007:170). Roles and responsibilities of all the stake holders should be clarified. All parties should acknowledge each other’s contribution with any warranted changes carefully negotiated and agreed upon. The health care services should ensure that the registered nurses and other clinical staff members function in a healthy work environment. The hospital registered nurses should feel valued, empowered and be provided with the necessary skills to teach the nursing students.

The NEI nursing department should support the health care services by providing the staff with the opportunities to further their studies. Healthy work environment has also been associated with increased productivity; organisational sustainability, empowered staff and decreased turnover (Little-Stoetvel, 2017:1). Other aspects of a healthy work environment include positive work environment and staff job satisfaction, subsequently providing the staff with the motivation to offer the supportive relationships and effective supervision to the nursing students. The procedure for the Positive Clinical Learning Environment model is depicted in Figure 6.9.
6.3.2.5. Dynamic
The dynamic relates to the motivating factors driving the performance of activities towards the attainment of the desired goal (Meleis, 2012:130). In the Positive Clinical Learning Environment model, both the hospital and the NEI nursing department are motivated to working together towards a common goal of producing a clinically competent nursing student. The motivating factors of the hospital and the NEI are depicted in Figure 6.10.

- Hospital dynamics
The ultimate source of energy in this model with regard to the hospital, is the desire to provide the clinical staff with a healthy work environment, ensure quality patient care and a conducive learning environments for the nursing students. The positive clinical learning environment will also enable the health care services on the other hand to retain nurses, especially considering the high turnover and the shortage of nurses facing the country.

- NEI dynamics

The motivation for NEI in the Positive Clinical Learning Environment model is to maintain quality nursing education that will ensure that a clinically competent nurse graduate is produced. The positive clinical learning environment will enable the nursing education institutions, especially the HEI, to attract the best candidates to the nursing profession.

![Figure 6.10: The dynamics of the Positive Clinical Learning Environment model](image)

**6.3.2.6. Terminus**

Terminus in the survey list relates to the end point of the performed activity between the agent and recipient (Meleis, 2012:130). The end product or terminus in the Positive Clinical Learning Environment model is twofold, constituting the short and long term outcomes. The short-term outcomes are achieved at the end of clinical placement, and the long-term outcomes at the end of their training.

The short-term outcomes pertain to the nursing students’ satisfaction with the clinical learning environment, as well as the achievement of clinical skills at the end of each placement period. In order to experience these, the nursing students would have to be supported, provided with effective clinical supervision and made to feel part of the team. In the process, they will have positive learning experiences culminating to the achievement of learning outcomes. The nursing students enter the nursing profession as novices who look up to the registered nurses and other clinical staff members, as well as the NEI clinical facilitators to provide them with clinical skills and knowledge. They are placed in clinical practice so that they can be exposed to clinical learning opportunities that will help them to be competent. Clinical practice
also grants the nursing students the opportunity to practice genuine nursing on real patients, as well as for theory-practice integration (Bigdeli et al., 2015:2). In addition, at the end of their training, the nursing students are expected to be competent and be able to independently practice comprehensive nursing. The long-term outcome should be of a completely self-actualised and emancipated nursing graduate who can be able to function well within the multidisciplinary team with confidence. The terminus as conceptualised in this model is depicted in Figure 6.11

Figure 6.11: Terminus of the Positive Clinical Learning Environment model

6.3.3. Assumptions of the Positive Clinical Learning Environment model
Assumptions are statements that are taken for granted without being tested scientifically (Meleis, 2012:186). In simple terms, assumptions are principles believed to true based on logic and reasoning without scientific evidence (Chinn & Kramer, 2011:178). A research that is free from the influence of the researcher's values and beliefs is quite impossible to achieve (Meleis, 2012:186). The assumptions that provided the framework for the Positive Clinical Learning Environment model were influenced by the researcher' philosophical paradigm. The assumptions of this model are also entrenched in the Donabedian's theory of Quality of Health Care Services based on the 'Structure, Process and Outcome', together
with Benner’s theory of skills acquisition in clinical practice of ‘From Novice to Expert’. The assumptions on which the Positive Clinical Learning Environment model are based in terms of the paradigm perspectives; meta-theoretical and theoretical, are discussed next:

**6.3.3.1. Paradigmatic perspectives**

According to Butts (2011:90) paradigmatic perspectives denote assumptions guiding the research with regard to social interactions in the world. According to Goldkuhl (2012:138) pragmatists believe that the ‘truth’ in the social world is not absolute, but relative, and is influenced by the very environment it takes place in. Clinical learning according to Kern et al. (2014:133) takes place within a larger social environment whereby students engage and interact with others. In the process, they navigate through different experiences while they try to understand and develop opinions about their world.

The researcher concurs with the above assertion and believes that the clinical learning environment as a social environment, has the potential to influence those who interact within its boundaries, either negatively or positively. The nursing students are in constant interaction with the hospital registered nurses and other clinical staff members, as well as the NEI clinical facilitators in the social environment. The social environment in the context of this study refers to the clinical learning environments. As noted by Cameron (2009:141) there is a constant interaction between people and the environment. Thus the researcher believes that the positive clinical learning environment has the potential to influence the nursing students’ clinical learning positively.

**6.3.3.2. Meta-theoretical assumptions**

The term meta-theoretical assumption is an abstraction of a discipline, and is composed of concepts that represents the view point of that particular discipline towards the world (Butts, 2011:3). A meta-theoretical perspective is a yardstick that distinguishes different disciplines with their own distinct and specific perspectives from each other. According to Butts (2011:3) the meta-theoretical concepts central to
the nursing discipline are the following: persons; environment; health and nursing. The conceptualisation of the Positive Clinical Learning Environment model focuses on two of the four meta-theoretical concepts, namely: the person and the environment.

- View of a person

Meehan (2012:2098) philosophised a ‘person’ as a “unitary, rational unique being who is in the midst of becoming and whose wholeness manifest in thoughts, feelings and behaviours”. This ‘being’ is composed of a bio-physical and psycho-spiritual realities. A ‘person’ is one with a mental and physical characteristic; is rational; possesses self-awareness, reflects about one’s experiences, feelings and motives of others; autonomous; and whose sense of self and individuality emerges when interacting with others (Meehan, 2012:2098).

The researcher’s view of a person herein refers to the nursing student as the focus of this study. The nursing student is viewed as a unique ‘being’ composed of a body, mind and spirit. The body consists of the physical, anatomical and physiological processes and needs that must be met. The nursing student (person) is in the midst of developing his/her wholeness into ‘being’, working towards becoming independent and a competent professional nurses at the end of his/her training. In pursuance of that, the nursing student is exposed to the challenging nature of the clinical learning environment whereby she/he interacts and form relationships with others (clinical staff, multidisciplinary team and patients). In the process, she/he develops own identity as unique ‘beings’.

The staff-student relationship has been widely recognised as key to the nursing students’ sense of belonging and learning (Levett-Jones, Lathlean, Higgins & McMillan, 2008:316; Kern et al., 2014:134). The nursing students’ sense of belonging does not only influence their motivation and capacity to learn, but also affect their future career decisions about nursing (Levett-Jones et al., 2008:316).
Based on the above, the researcher’s meta-theoretical assumptions about the nursing student as a ‘person’ are the following:

- The nursing student is an autonomous ‘being’ with mental and physical characteristics that need to be acknowledged and his/her opinions respected.
- The nursing student is capable of making rational decisions, as such he/she should be allowed to interrogate issues affecting his/her learning.
- The nursing student possess a network of beliefs, allowing them to reflect about their learning experiences in the clinical learning environment, and the feelings and motives of the ones they interact with. Gaining and taking into considerations their perceptions about the factors that inhibit or enhance their learning and sense of wellbeing in the clinical learning environment, can help in the promotion of positive clinical learning environment.
- By interacting with clinical staff and other members of the multidisciplinary team, the nursing students’ sense of belonging is enhanced, thus developing sense of self and individuality
- The nursing student as an individual with a mind and spirit, needs to be emotionally supported in order to enhance his/her self-esteem and confidence. This will see them becoming into responsible professional nurses who will be able to function independently and cope well in the demanding and challenging clinical learning environment.

**View of an environment**

Roy (2009:12) views the ‘environment’ as any context that has an influence or is influenced by a designated client. The ‘environment’ can also refer to the conditions and circumstances in a surrounding, and their influences on the development of persons (Roy, 2009:12). The researcher’s view of the ‘environment’, the clinical learning environment in this study, relates to all the conditions and circumstances constituting the physical and psychosocial entities in the clinical setting influencing the person’s (nursing student) learning. The ward atmosphere, material and human resources, staff-students relationships, communication processes and teaching and learning processes, all have an influence in the nursing students’ learning experiences and outcomes. Clinical learning environment provides the nursing
students with the opportunity to practice real nursing on real patients. It is therefore imperative that nursing students learn in an environment that is positive so that their learning can be effective. The researcher’s meta-theoretical assumptions about the clinical learning environment are the following:

- The clinical learning environment influences the nursing students’ professional developmental stages
- The availability of both human and material resources have a positive influence on the students’ learning in clinical practice
- A positive clinical learning environment has a positive influence on the nursing students’ physical and psychosocial wellbeing.

6.3.3.3. Theoretical assumptions

A theoretical framework is a structure that guides a specific study, and it can be described by means of a diagram or map to demonstrate the concepts and their relationships (Gray et al., 2017:140). The theoretical assumptions of the Positive Clinical Learning Environment model are rooted in the theoretical framework guiding this study, based on the Donabedian’s theory of Quality of Health Care Services (Donabedian, 2005:691), together with Benner’s theory of skills acquisition in clinical practice of ‘From Novice to Expert’ (Gentile, 2012:101). Thereafter, the theoretical assumptions emanating from it will be outlined. Based on the above, the theoretical assumptions of the Positive Clinical Learning Environment model are the following:

- The quality of the nursing students’ learning in clinical practice (outcome component) is affected by the quality of clinical learning environment (the structure and the process component)
- The nature of the clinical learning environment (structure and process) determines the nursing students’ learning outcomes (outcome component)
- Negative clinical learning environments (negative structural and process components) lead to negative nursing students’ learning experiences (poor outcomes)
- Positive clinical learning environments lead to positive nursing students’ learning experiences
• The nursing students’ progression from being a novice nurse to the level of being an expert nurse is influenced by the type of the clinical learning environments they are exposed to.

• The satisfaction level of the nursing students is affected by the type of interpersonal relationship they have with the clinical teachers.

• The nursing students’ attrition rate is influenced by the negative learning environment they are exposed to.

• Positive clinical learning environments increase the staff and students’ morale.

• Positive clinical learning environment lead to the production of competent and skilled nursing graduates who can function independently.

• The working together of the hospital staff and the university lead to positive outcomes.

6.3.4. Relational statements
The relational statements explain the associations that exists between and among concepts (Gray et al, 2017:142). The relational statements that emerged from the Positive Clinical Learning Environment model are as follows:

• A conducive clinical learning environment, availability of resources and equipment, and a well-educated and skilled clinical staff can have a positive impact on the nursing students’ learning leading to positive outcomes.

• A good working relationship between the hospital registered nurses and the NEI clinical facilitators can lead to the nursing students’ positive learning outcomes.

• Exposure of the nursing students to the wards that have a healthy working environment and availability of resources will enable the clinical teachers to provide the nursing students with effective and quality clinical teaching, that can result in students experience positive learning experiences, and feel as part of the clinical team.

• Empowerment of hospital registered nurses will result in better clinical teaching strategies that will see the nursing students experience positive learning experiences, and advance normally through the skill acquisition stages as expected.
Healthy clinical learning environments have a positive impact on the staff morale, thus improving their interpersonal relationships.

Improved interpersonal relationship will enable the hospital registered nurses to be supportive to the Nursing students and provide them with effective clinical supervision.

Availability of material and human resources in the ward, result in quality patient care, thus contributing to the nursing students better learning outcomes.

When the nursing students are supported and provided with clinical supervision when in clinical practice, their sense of belonging will increase, and they will be satisfied with the clinical learning environment. All these can culminate into them having positive learning experiences and allowing them to achieve their learning outcomes.

A collaborative partnership between the hospital and the University can improve the working relationship, and allow both to provide the nursing students with effective clinical teaching.

The collaboration between the health care services and the NEI leads to better students’ learning outcomes.

The nursing students’ competency in clinical skills is because of the proper instructional methods employed during clinical teaching. Strategies such as effective clinical supervision can enable the nursing students to get quality clinical education, and in the end, become competent and clinically skilled to function independently.

Figure 6.12, previously depicted as Figure 6.5, illustrates the schematic representation of the Positive Clinical Learning Environment model as it emerged from the relationship statements discussed above, existing between and among concepts from the empiric findings of this study, the Donabedian’s theory of standard-process-outcome and Benner’s theory of From Novice to Expert, as well as the Dickoff et al.’s (1968) survey list. The structural description of the model follows thereafter.
Figure 6.12. Schematic representation of Positive Clinical Learning Environment model
6.3.5. Structural description of the Positive CLE model

The structural forms of the model are instrumental in shaping our perceptions about reality (Chinn & Kramer, 2011:191). The visual presentation of the Positive Clinical Learning Environment model as depicted in Figure 6.12 is conveyed by means of different structural forms and cues with different colours, as illustrated in Table 6.4. The purpose of using different colours was to enable the researcher to distinguish structural forms from each other to facilitate easy interpretation.

Table 6.4: Structural forms representing Positive CLE model concepts

<table>
<thead>
<tr>
<th>STRUCTURAL FORMS</th>
<th>REPRESENTATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Image" /></td>
<td>Outside borders represents the clinical learning environment context.</td>
</tr>
<tr>
<td><img src="image2" alt="Image" /></td>
<td>Yellow arrows (both left and right) indicate that the influence that the structure and agent have on the process (procedure) and the outcome (terminus)</td>
</tr>
<tr>
<td><img src="image3" alt="Image" /></td>
<td>Two pillars on opposite sides (orange and grey) represent structural components (concepts) constituting the Positive Clinical Learning Environment model. Different colours are only used to distinguish them apart</td>
</tr>
<tr>
<td><img src="image4" alt="Image" /></td>
<td>A big white block connected by arrows to white ascending small blocks represent outcomes indicating an upward movement signifying the developmental stages the nursing students go through while acquiring clinical skills in clinical practice.</td>
</tr>
<tr>
<td><img src="image5" alt="Image" /></td>
<td>The Left-right arrow with a green colour represents the collaborative partnership (process) between the left structural elements constituting the hospital clinical learning environments and right structural elements representing the NEI clinical learning environments. A green box embedded on the left-right arrow is also part of the procedure, with the yellow up arrow indicating its influence on the outcome</td>
</tr>
<tr>
<td><img src="image6" alt="Image" /></td>
<td>Two blue oval shaped structures connected by left-right up arrow in the middle, represent the dynamics as the driving forces behind the procedures taking place between the two structural components</td>
</tr>
<tr>
<td><img src="image7" alt="Image" /></td>
<td>Curved up arrow indicate the motivating factors on the structural forms from the dynamics</td>
</tr>
</tbody>
</table>

An explanation of the visual model, meanings of the structural forms and relationships among concepts are discussed next according to its components.
• **Context of the model** -

The context includes all the variables to be considered during the engagement between the agent and the recipient in order to bring the desired change or goal (Meleis, 2012:130) (see section 6.3.2.4). The context as it is applied to the Positive Clinical Learning Environment model refers to the hospital clinical learning environments and the NEI nursing department. Chan (2002) as cited by Flott and Linden (2015:503) defined clinical learning environment as “the interactive network of forces within the clinical setting that influences students’ learning outcomes”. The variables include, the setting; working environment; organisational structures; resources; availability of clinical learning opportunities, as well the educational status, training, experience and qualifications of the clinical teachers or supervisors (Parker & Smith, 2012:3).

In the Positive Clinical Learning Environment model, these variables represent ‘structures’. The ‘structure’ component of Donabedian’ theory refers to the setting in which health care is provided. Other components of the ‘structure’ includes, physical structure of the clinical setting; adequacy of human and material resources; the staff members’ training, experience and qualification; as well as the general atmosphere within the ward. As it can be noted in Figure 6.12, the Positive Clinical Learning Environment model has two core structural elements represented by the orange and grey pillars on opposite sides. The clinical component, provided by the health care institution (orange pillar), and the theoretical component provided by the NEI (grey pillar), provide the structural pillars of the nursing education. The two institutions both have responsibility for the education and training of the nursing students who are clinically competent, critical thinkers and independent professional nurses. The researcher chose a symbol of a pillar to indicate the importance of the two components in shaping the nursing students’ professional growth.

• **The orange pillar in the model** -

The orange pillar represents the hospital ward, located within the hospital, on the left side. Applied within the Positive Clinical Learning Environment model, the ‘structure’ component refers to the hospital ward as a setting constituting a positive clinical
learning environment. The components of the ‘structure’ within the positive clinical learning environment includes, a healthy work environment in which the staff is valued, supported by the management, and are motivated to provide quality patient care that the nursing students can emulate. The structure also includes the availability of human and material resources, as well as, variety of learning opportunities that will provide the nursing students with positive learning experiences. Of utmost importance constituting part of the structure, is the availability of registered nurses (agents) who are empowered and clinically skilled. Clinically competent registered nurses will ensure that the nursing students’ (recipients) clinical requirements, such as learning objectives are met. Besides the nursing students regarded as recipients, they are also regarded as agents in the Positive Clinical Learning Environment model. The nursing students as agents, have the power to evaluate the clinical learning environment and their perceptions can be used to bring a paradigm shift in clinical education. An orange pillar symbolises the strength and quality of clinical learning environment as the pillar of clinical education that can benefit the health care services.

• The grey pillar in the model: 
Alongside the orange pillar, the grey pillar on the right side of the Positive Clinical Learning Environment model represents the ‘structure’ component of the NEI nursing department. The components of the NEI nursing department’s ‘structure’ includes, a well-resourced and functioning skills laboratory in terms of human and material resources; highly educated and skilled clinical facilitators (agents);as well as well-prepared nursing students. The NEI nursing science department pillar of the Positive Clinical Learning Environment model symbolises its significant role in clinical education within the nursing education curriculum. The NEI nursing science department has a duty to ensure that it prepares the nursing students thoroughly before they are placed in the clinical learning environments. They also have to provide clinical learning objectives for the clinical areas with the nursing students’ so that effective clinical teaching can take place.

• The green pictogram in the model: 

The ‘process’ component of Donabedian’s theory refers to overall administration of activities going on within the health care setting (Liu et al., 2013:3) so as to bring the desired outcome (see section 6.2.1.1). The procedure in the Dickoff et al survey list, pertains to the process involved in achieving the desired goal (Meleis, 2012:130). In the Positive Clinical Learning Environment model, the small green box labelled ‘process’, lies between the grey and orange pillars, and occupies the lower end of the model to symbolise all the procedures that take place during the clinical facilitation processes of the nursing students while in clinical practice.

The activities represented in this box comprise of the planning, organising and the implementation of students’ clinical programs by both the hospital and NEI nursing science department; the instructional methods used during clinical teaching such as clinical supervision, as well as the communication strategies used when interacting with the nursing students. In a positive clinical learning environment, the registered nurses (agents) and NEI clinical facilitators provide the nursing students (recipients) with effective clinical supervision indicated by yellow arrows pointing towards the green box. The agents communicate effectively and have supportive interpersonal relationships that ensure the nursing students feel part of the team and develop a sense of belonging.

The green right-left arrow, joined together with the small green box in the model, depicts the inter-dependence of activities or procedures that take place during the clinical facilitation process of the nursing students in clinical practice. As it appears in the Positive Clinical Learning Environment model, the green right-left arrow bridges the gap between the hospital and the NEI nursing department. It signifies interconnectedness and interdependence that is often overlooked by the two institutions. According to the National Strategic Plan for Nursing Education, Training and Practice (2012:21) there is a notable disconnect between nurse educators and clinicians due to the lack of communication. Hence the health care facilities (hospital) and the NEI must work together in a collaborative partnership to promote positive clinical learning for the nursing students.
• The right and left yellow arrows in the model: (➡️➡️)
The first two yellow arrows at the lower end of the model point at the green process pictogram from opposite directions. The left arrow has its origin from the orange structure pillar on the left and pointing at the green process pictogram representing the components of the hospital ward clinical learning environments, while the right arrow originates from the grey structure pillar, representing the components of NEI clinical learning environments on the right, also pointing at the green process pictogram. These arrows symbolise the impact of ‘structure’ on ‘processes’. They indicate the actions of both the hospital and NEI nursing department have a direct impact on the planning, organising and the implementation of clinical education programmes, either positive or negative. As depicted in the Positive Clinical Learning Environment model, the yellow arrows suggest that a clinical learning environment, with resources and a healthy work environment, will have positive influence on clinical teaching procedures. Skilled and empowered hospital registered nurses (agents) are part of the structure to build supportive interpersonal relationships with the nursing students. Similarly, NEI clinical facilitators’ positive actions also influence the nursing students’ clinical facilitation procedures positively.

Another two yellow arrows at the upper part of the model point to the outcome (terminus) from the sides, originating from both the orange and grey pillars. These arrows imply the satisfaction and the sense of belonging of the nursing students is affected by the actions of the hospital and NEI clinical learning environments, resulting in the progression through skill acquisition levels suggested by Benner (1984). The implication is that even if the correct procedures such as effective clinical supervision and supportive interpersonal relationships are provided, if the resources within the hospital and the NEI clinical are inadequate, and the clinical supervisors or teachers are not properly trained, the perceptions of the nursing students about the clinical learning environment will be negative, thus resulting in negative learning outcomes and affecting their satisfaction level. Similarly, if the instructional strategies are flawed, but the resources are available, the nursing students’ learning experiences and outcome will be impacted negatively. Hence it is
imperative that both the hospital and the NEI clinical learning environments structures are made positive so that they can have a positive impact on the nursing students’ clinical learning outcomes and their advancement through the skills acquisition levels.

- **The white pictogram in the model** -

The Donabedian’s outcome’ component implies the end results or change in the client’s status as affected by the structural and process standards (Ayanian & Markel, 2016:206). The outcome in the survey list relates to the end point or terminus of the performed activity between the agent and recipient (Meleis, 2012:130). As illustrated in Figure 6.12, the outcome in the Positive Clinical Learning Environment model is represented by a pictogram of a white big box connected by arrows to white ascending small boxes, situated between the orange and grey pillars. The outcome or terminus in the Positive Clinical Learning Environment model is two-fold, representing the short and long-term outcomes.

The big white box symbolises the short-term outcomes (terminus) signifying the nursing students’ satisfaction with the clinical learning environment. When satisfied, the nursing students have been treated with dignity and respect, and are considered members of the team with a sense of belonging. Consequently, they can communicate freely and ask questions when they need to. In this process, the nursing students have positive learning experiences, achieve positive learning outcomes and are able to acquire clinical skills. The small ascending boxes were used to illustrate the long term outcome (terminus) that can be achieved in the Positive Clinical Learning Environment model. The small ascending boxes symbolising the developmental stages of skills acquisition in clinical practice derived from Benners’ theory of ‘From Novice to Expert’ (see Section 6.2.1.2). This illustrates the stages of nursing students’ transition during their training. The first small box at the bottom in the stack of boxes signifies a nursing student as a first year novice student, entering the nursing profession and advancing through the developmental stages of skill acquisition, up to the level of an expert nurse who will be a clinically skilled and competent nurse graduate.
The significance of this upward movement, symbolised by small blue arrows in each box, is that with the support and effective clinical supervision provided within a positive clinical learning environment, novice nurses can advance to a level of an advanced beginner representing a second year nursing student with acceptable performance. The second year nursing student may from then, with continued support and guidance, advance to third year as a competent nurse who is able to integrate knowledge and skill. The third year nursing student could advance to fourth year level as a proficient nurse who sees situations as a whole. The progressive movement through the different levels of their academic years of study, implies that in order for the nursing students to progress as suggested by Benner (1984) through the skill acquisition developmental stages as shown in the model, proper instructional methods, effective clinical supervision, as well as supportive interpersonal relationships must be provided and properly instituted. Conversely, the structure components must also be adequate. Oshvandi, Moghadam, Khatiban, Cheraghi, Borzu and Moradi (2016:3018) posit that the progression through different levels of skills acquisition is mainly due to the increased self-confidence gained when the nursing student is able to navigate and meet various clinical demands and conditions. The same researchers further suggest that the clinical supervisors and teachers can use the Benners’ theory as guide to design effective nursing education curriculum.

With that viewpoint, it can be argued that the quality of outcome component, be it good or poor, is largely dependent on the quality of both the structure and the process component (Ayanian & Markel, 2016:206). The small box with a small star inside, at the top of stack of white small boxes (see Figure 6.12) represents a clinically skilled and competent nurse graduate, ready to shine and excel in his/her work. Several studies have shown that when students are capable and motivated to learn, and the conditions are conducive to learning, it is possible for them to can even advance to the level of expert upon graduation (Lyon, 2015:101; Oshvandi et al., 2016:3018; Brown, 2017:20). Furthermore, the scope of practice of a registered nurse in South Africa describes her/him as: “a person who is qualified and competent to independently practise comprehensive nursing in the manner and to the level
prescribed and who is capable of assuming responsibility and accountability for such practice” (SANC, 2005:25).

- **The up yellow arrow in the model**
The up yellow arrow situated between the terminus pictogram and the green procedure/process pictogram pointing upward, symbolises the positive impact that effective clinical supervision and the supportive interpersonal relationships will have on the nursing students’ learning experiences and outcomes. This suggests relationships between the white boxes (terminus) and green pictogram (process) reflect the health care service and academia working together in collaborative partnerships provide positive clinical learning environments. The health care and academic settings must work together during planning, organising and implementations of the nursing clinical programmes.

- **The blue pictogram in the model**
The dynamic relates to the motivating factors driving the performance of activities towards the attainment of the desired goal (Meleis, 2012:130). The blue pictogram at the bottom of the model represents the following:
  
  - The dynamics as the motivating forces behind the planning and implementation of the nursing clinical programmes.
  - Institution of proper instructional methods, and the collaborative partnerships (procedures) between the hospital clinical staff and the NEI clinical facilitators (agents) to ultimately produce a clinically skilled and competent nurse graduate.

The oval shaped pictogram on the left side symbolises the motivating factors in this model with regard to the hospital. The curved up blue arrow on the left side pointing to the orange pillar indicates the desire of the hospital policy makers (local, provincial and national structures) to provide the clinical staff with a healthy work environment, ensure quality patient care, and conducive learning environments for the nursing
students. Similarly, the right curved up blue arrow pointing at the grey pillar signifies the desire of the NEI policy makers (local, provincial and national structures) to provide the nursing students with quality clinical education. According to WHO (2016:6) quality education is necessary for the development of a competent professional nurse who is equipped to deliver quality patient care.

The section that follows deals with the model evaluation which constitute Phase three of this study.

6.4. EVALUATION OF THE MODEL

The evaluation process consisted of critical reflection ensures the model is in line with its intended purpose, and also to determine if it is related to nursing practice, research and educational activities (Chinn & Kramer, 2011:197). The evaluation of the model was conducted in two ways. First was researcher self-evaluation of the model utilising five critical questions addressed below, proposed by Chinn and Kramer (2011:196). Next, the model was independently evaluated by five experienced professionals with doctoral degrees and considered experts in model development. The five questions were posed to bring clarity to the structure of the model. The outcome of these evaluations was an agreed Positive Clinical Learning Environment model (Figure 6.12) that could be easily applied in clinical practice. The critical questions and outcomes of both the researcher’s critical analysis of the model and the reviewers’, are reported below. The evaluation process start by outlining the researchers’ self-evaluation first, then followed by the reviewer’s comments.

6.4.1. Self-reflection

The five critical questions suggested by Chinn and Kramer (2011:196) to critically reflect the model are as follows:

- How clear is the model?
This question addresses the aspects of semantic clarity, semantic consistency, structural clarity, and structural consistency. Semantic clarity and consistency clarifies the intended theoretic meaning of used concepts, while structural clarity and consistency is concerned with the interconnectedness of the concepts within the model (Chinn & Kramer, 2011:198). The researcher addressed semantic clarity and consistency by conducting concept analysis of the main concepts identified to construct the model in Chapter 5, Section 5.2. By conducting concept analysis, the researcher aimed at establishing different uses and attributes of these main concepts so as to develop the theoretic meaning understandable for the reader. In order to ensure structural clarity, the researcher used the survey list suggested by Dickoff et al. (1968) to classify the concepts within the model so as they could be easily identifiable. Different structural forms with different colours were used so that the concepts could be easily distinguished from each other. The concepts as they can be seen in Figure 6.12, were then connected logically by means of arrows so as to indicate their interconnectedness and suggested relationships. The structural form of each concept within the model was also described in detail in Section 6.3.5 so as to show how they relate to each other and their relevance to clinical practice. Based on this information, the researcher is therefore of the opinion that the Positive Clinical Learning Environment model can be easily interpreted.

- **How simple is the model?**
  Simplicity of the theory according to Chinn and Kramer (2011:201) refers to minimal number of concepts used in the model, and their interrelationship. The researcher ensured that the model was not clustered with many interconnections and pointers. Few structural forms were used to construct the model and their relationships were demonstrated logically with few arrows. The researcher found the Positive Clinical Learning Environment model to be simple and easily interpreted.

- **How general is the model?**
The question of generality of the model refers to the breath of scope and the purpose of what it was intended for (Chinn & Kramer, 2011:202). The Positive Clinical Learning Environment model was developed for the nursing students at a particular tertiary institution. However, the definition of the clinical learning environments as applied in this study refers to any health care setting used by any health care science student who are expected by their professional regulating bodies to be exposed for experiential learning in that setting. Based on the above assertion, the researcher believes that the principles on which the model are based, can be applied in other health care science contexts, thus rendering the Positive clinical Learning Environment can be generalised.

- **How accessible is the model?**
The accessibility of the model reflects how the empiric indicators of the concepts can be easily identified within the theory. It also addresses the extent to which the purpose can be attained (Chinn & Kramer, 2011:213). In order to make the model accessible for the nursing community, the researcher used the survey list suggested by Dickoff et al (1968) to make the concepts in the model practice specific by aligning them with the components constituting a hospital ward environment. By so doing, the researcher envisaged that all the members of the health care team could easily associate themselves with the concepts of the Positive Clinical Learning Environment model. The researcher also developed implementation guidelines so that the model could be easily applied in clinical practice (see Section 6.5). The Positive Clinical Learning Environment model can be accessed by the nursing community through internet, seminars, workshops and journals.

- **How important is the model?**
A developed model must be of clinical significance. It must also add value to the body of knowledge within a discipline. A model developed to improve nursing practice must be usable in practice, education, as well as research (Chinn & Kramer, 2011:204). The Positive Clinical Learning Environment model was developed with the aim of improving the quality of clinical education for the nursing students at tertiary. The model was developed following the empiric findings of nursing students’
disgruntlement with regard to the current clinical learning environment. It was also alluded in The National Strategic Plan for Nursing Education, Training and Practice (2012:4) that the current clinical learning environments in South Africa are not sufficiently equipped to deal with students. In addition, it was reported that there was also scarcity of role models that the students can look up to.

In light of the above, the researcher saw it fit to develop a model to promote positive clinical learning environment as a strategy to improve quality of clinical education and training. Its proper implementation may see the nursing profession attracting increased number of potential candidates. The Positive Clinical Learning Environment model may also reduce high attrition of nursing students joining the profession, as well as reducing the staff turnover. The recommendations of how the model can be used to improve the nurse work environment were provided. The assumptions of the Positive Clinical Learning Environment model can also be tested by research. The researcher therefore considers the Positive clinical Learning Environment model to be of importance.

6.4.2. Peer reflection
The reviewers were provided with the model evaluation tool (Annexure G) designed by the researcher based on the evaluation criteria comprising the same questions suggested by Chinn and Kramer (2011:196).

- How clear is the model?
All the reviewers agreed that the model was clear and that semantic consistency was ensured by using the concepts consistently according to how they were defined. However, two reviewers had minor reservations with regard to the structural forms used. One reviewer commented about the 3D images used and that they made interpretation of the model a bit difficult due to the background shadows. The structural forms were then converted to simple shapes. The other reviewer suggested that the use of a portrait page on which the model was initially displayed, made the concepts to look crowded. A suggestion was made to use a landscape
The model display was then changed to the landscape page. Three reviewers were concerned about the use of an ‘expert’ to describe the newly qualified registered nurse. One reviewer suggested that the terminus of the model should be a qualification.

The researcher did not however consider those recommendations based on the context of this study. The reader should note that the researcher is cognisant of the definition of an ‘expert’ by Benner (1984) as someone who is highly experienced. However, the Positive Clinical Learning Environment model was developed to demonstrate that nursing students in this context, may achieve an ‘expert’ level expected at their level of training at the end of the training, provided the clinical learning environment is conducive as noted by several researchers (Lyon, 2015:101; Oshvandi et al., 2016:3018; Brown, 2017:20). Based on that, the use of ‘expert’ as a long-term outcome was not changed.

- **How simple is the model?**
  All reviewers found the number of concepts in the model to be acceptable and not clustered. They commented that the model was simple and easily understandable.

- **How general is the model?**
  The comments from all the reviewers were in agreement that the model was general and it could be applied to other contexts.

- **How accessible is the model?**
  Four of the reviewers considered the model to be accessible. Only one commented that the question of accessibility was not adequately addressed as the researcher did not give a clear indication of how the model should be operationalised. To that, the researcher then developed implementation guidelines that provided directions on how to operationalise the model in clinical practice.
• How important is the model?

The comments from the reviewers demonstrated that they all considered the model important and that if implemented, may help to turn the negative clinical learning environments across the country, positive.

6.5. IMPLEMENTATION GUIDELINES FOR PRACTICE

Guidelines are necessary to provide directions on implementation strategies (Registered Nurses Association of Ontario, 2012:7). The success of the implementation of the Positive Clinical Learning Environment model is reliant on the different spheres of government responsible for the delivery of healthcare and nursing education in South Africa, namely, the macro, meso and micro levels. Figure 6.13 illustrates the three spheres of governance pertaining to both the healthcare and nursing education delivery systems.

![Different spheres of governance](image)

A brief description of each sphere of governance in relation to their contribution with regard to the promotion of clinical learning environment will be given. Thereafter, implementation guidelines pertaining to the healthcare and NEIs clinical learning contexts addressing these levels of governance will be presented. The developed guidelines are based on four basic elements of a positive clinical learning environment derived from the findings of this study, namely, a healthy work environment, supportive interpersonal relationships, effective clinical supervision and collaborative partnerships.
6.5.1. Macro sphere of governance
The macro sphere of governance in the context of this study refers to the South African National and Provincial governments structures

- **Healthcare delivery.**
The organisation and running of the health care institutions in South Africa is dependent on the National and Provincial Department of Health at macro level under the National Health Act (Act no. 61 of 2003). The National and the Provincial Department of Health determines the policies, standards, as well as funding for the running of health care institutions. In order for the health care institutions to provide clinical environments that are conducive to the staff well-being and students’ learning, the National and the Provincial Department of health must provide them with adequate funding and resources.

- **Nursing education and training**
Equally, the South African nursing education and training functions under the authority of the Department of Higher Education and Training at macro level based on the Higher Education Act No. 101 of 1997. The Council of Higher Education guided by the Higher Education Act gives directions on cooperative governance, and provides for funding and quality assurance. The South African Nursing Council also a quality assurer at macro level, governs and regulates the education and training of the nursing profession under the Nursing Act No. 33 of 2005. SANC

6.5.2. Meso sphere of governance
In the context of this study, the meso sphere of governance refers to the institution and the management structures responsible for the support and coordination of services within the organisation.

- **Health care institution**
The health care institutions are run at upper, middle and lower level management structures. Healthcare managers occupying key positions on these levels are responsible for providing support to the staff and coordinate the services within healthcare organisations.

- **Nursing education institution**
The meso organisational structure within the nursing education and training system in the context of this study, refers to the nursing education institution and its management organisational structures. The NEI authorities have to ensure that nurse educators are skilled enough and have adequate resources to provide quality nursing education, theoretical and clinical.

6.5.3. **Micro level**
The micro level of governance in this study pertains to organisational management at a unit or departmental level.

- **Health care institution unit/ward**
The running of the ward or unit at micro level in health care organisations is done by operational manager whose span of control involves planning, organising, leading and controlling of all the activities taking place in the unit. It is also the responsibility of the operational manager to ensure that the clinical staff under her/his care, including students, practice in a healthy work environment.

- **Nursing education institution**
The micro level in a nursing education institution in the context of this study refers to the nursing education department, in this instance, the nursing science department. It is the responsibility of the nursing science department senior management to ensure that clinical nurse educators are appropriately educated and clinically skilled so that they can provide effective clinical education. Necessary resources to the advancement of effective clinical teaching must also be provided.

6.5.4. **Guidelines for operationalisation**
The guidelines will be discussed in terms of the objectives and strategies to operationalise the Positive Clinical Learning Environment model.

6.5.4.1. Creation of a healthy work environment

Objective: To ensure an environment that is conducive to the staff wellbeing and student learning.

Strategies for macro level

- Provide health care institutions and NEIs with adequate funding for equipment and material resources. This will ensure that students’ learning experiences are optimised.
- Create posts for adequate personnel to be hired, as well as filling of vacant posts.
- Develop policies that recognise clinical education as priority so that clinically competent nurses can be produced.
- Remunerate staff accordingly to improve their morale.

Strategies for meso level

- Health care facility management should allocate an adequate number of registered nurses on duty in any given day so that quality patient care and student learning takes place
- Provide effective leadership by resolving institutional problems timeously
- Ensure staff’s physical and psychological safety
- Obtain staff inputs on matters concerning their work environment
- Have measures in place for recruitment and retention of highly skilled staff.
- Perform exit interview and use findings for improvement purposes.
- Assist lower level managers with hands-on leadership skills.
- Offer training opportunities to develop staff professionally.
• Create a platform of high-involvement employee relations.
• Conduct periodic employee surveys.
• Create measures of desired performance such as employee satisfaction and staff turnover rates.
• Organisational constraints such as increased workload should be managed at management level.

**Strategies for micro level**

• Ensure adequate staff with skill mix are always on duty.
• Assign work tasks fairly.
• Encourage students to participate actively in ward activities.
• Delegate students according to their scope of practice.
• Treat students as learners, not extra pair of hands.

**6.5.4.2. Provision of supportive interpersonal relationships**

**Objective:** To encourage supportive interpersonal relationships that would ensure that the clinical team, clinical facilitators and students are supported and valued.

**Strategies for macro level**

• Develop policies that cater for the staff wellbeing, for example, wellness clinic.
• Develop policies that cater for staff security needs, for example, hiring of security personnel.
• Attend and address meso level challenges and concerns such as staff shortages, workloads and lack of materials timeously.
• SANC should have policy change with regard to education and training of the nursing students to recognise them as learners.

Strategies for meso level

• The NEI should provide the hospital registered nurses with the opportunities for capacity building as well as professional development, especially those who do not have nursing education and are eager to teach students.
• Policies on study leave at both the NEI and health care facilities should be fair, and all deserving employees must be given a chance to study further.
• Health care facilities and NEIs to hold regular meeting whereby students’ clinical matters are discussed.
• Health care facilities and NEIs to form joint committees so that they can discuss students’ clinical matters as a team.
• Health care facility should enforce measures that ensure the available time is focused on students’ clinical learning, rather than on the needs of the service.
• Both the NEI and the health care facility should provide incentives and acknowledge good performance.
• Communicate properly with staff and value their inputs.
• Culture of learning should be encouraged and observed by all staff members.
• The NEI management must support the clinical staff in their endeavours to provide quality clinical education by providing them with needed resources.

Strategies for micro level

• Provide students with thorough orientation on the first day in clinical practice so that they can know what is expected of them
• Students should be warmly welcomed and treated with respect when in clinical practice
• Allow students to actively participate in ward activities so that they gain confidence. Where they make mistakes, correct them constructively.
• Appropriate learning opportunities should be created so that their learning can be maximised.

• Allow learners access to the facilities and materials to optimise their learning, e.g. work space, internet facilities, lockers to place their staff, social facilities such as kitchen and common room. This will enhance their sense of belonging.

• The operational manager should allow staff to communicate freely without fearing victimisation. Every staff member should be allowed to voice out his or her opinion.

• Work should be distributed fairly, and registered nurses who are involved in clinical teaching should be given chance to teach students without being assigned patients.

6.5.4.3. Provision of effective clinical supervision

Objective: To ensure students achieve positive learning experience and outcomes, and to prevent medico-legal hazards

Strategy for macro level

• SANC as quality assurer should ensure that standards on clinical supervision are observed and implemented.

• Platforms to equip junior members of staff with supervisory skills should be created.

• Senior members of staff should mentor junior members so that they can gain supervisory skills and confidence. This will enable them to be independent in the absence of senior staff.

• Enough personnel to be hired to allow for effective supervision instead of everybody being hands on
Strategies for meso level

- Clear guidelines on supervision should be developed and be observed by all stakeholders.

- NEIs should ensure that there are adequate numbers of clinical facilitators to accompany students, so that they can provide them with effective clinical supervision. This will ensure that the clinical staff are not overburdened with extra work of supervising students, since they have other responsibilities such as patient care to attend to.

- Health care institutions’ management should ensure that units are well-staffed, so that there are enough personnel on duty to provide quality patient care, while those responsible for students’ teaching can supervise them without being expected to carry other responsibilities.

- The health care facility and the NEI should create structures such as monthly meetings, whereby issues affecting students’ learning in the clinical practice can be addressed simultaneously.

- The NEI institutions should orientate students thoroughly about their programme before placing them in clinical practice. This will ensure that students are well prepared, and aware of their expectations.

- The NEI should ensure that the learning programmes are structured and formalised in consultation with the health care facilities. This will allow the health care facilities to plan accordingly for students.

- The NEI should ensure that elements such as students’ learning needs; learning objectives and outcomes, are communicated to both the students and clinical staff during orientation.

Strategies for micro level

- NEIs to allocate a manageable number of students in clinical practice so that the clinical staff can easily supervise them
• The clinical staff must be involved in student’s assessment and be given in-service education and workshops in relation to student programme.

• Different strategies of clinical teaching such as teachable moments, on the spot teaching, case studies and ward rounds, should be employed to make learning effective.

• The health care facility should ensure that junior members of staff are supervised by senior members of staff

• Students should be paired with an experienced member of clinical staff with scope of practice above theirs when carrying nursing care. This will help to avoid role confusion.

• The wards must have adequate number of staff, especially registered nurses with different skill mix so that students can get optimal learning.

• Students should be self-directed so that they can take their learning serious and come to clinical learning practice well prepared.

6.5.4.4. Establishment of collaborative partnerships

Objective: To ensure a healthy working relationship between the health care service and NEI in order to promote students’ clinical learning

Strategy for macro level

• The Department of Health and Higher Education should work together at macro level to draw policies recognising clinical nursing education as an investment to quality patient care

• Guidelines that promote partnership should be instituted at national level by both the DoH and DHET, and be disseminated to meso level for implementation. This will enforce the health care facilities and NEIs to work together to promote positive clinical education.

Strategy for meso level
• The health care facility and the NEI should work together in a mutually and respectful partnership

• The NEI management and the hospital care facility management must work together in order to support the individual endeavours of the hospital registered nurses and the clinical facilitators.

• The NEI must work with the health care institutions in order prepare the nursing students for the complex clinical practice.

• Objectives and expectations between the NEIs and their clinical partners should be clarified to avoid confusion.

**Strategy for micro level**

• Development of clinical curriculum and programmes together by the clinical staff and the NEI clinical facilitators

• Orientation of students to the clinical programme should be done jointly

• Hospital registered nurses should be invited to clinical curriculum development since they are more conversant with current trends and offer valuable inputs

• Clinical nurse educators should empower clinical staff with clinical teaching skills

• The clinical nurse educators should involve the clinical staff, especially preceptors in all students’ clinical related matters

• Both the clinical staff and the NEI clinical facilitators must treat each other cordially with respect.

• Communication must be open

### 6.6. Conclusion
This chapter discussed the development of the model to Promote Positive Clinical Learning environment. The model was also described narratively and graphically, followed thereafter by evaluating it. Implementation guidelines for operationalisation of the model were also provided. The next chapter is on summary, limitations and recommendations for education, practice and research.
SUMMARY, LIMITATIONS AND RECOMMENDATIONS

7.1. INTRODUCTION

The rationale for undertaking this study was to assess the perceptions of the nursing students at a selected NEI and the hospital registered nurses with regard to the current clinical learning environments. The clinical learning environments play a pivotal role into the lives of the nursing students by providing them with experiential learning and socialising them into the nursing profession (de Swart et al., 2017:2). Research has shown however that the clinical learning environments are a source of stress for nursing students (Msiska et al., 2014a:39; Zakaria & Gheith, 2015:35).

The study was carried out at a selected academic hospital and a selected NEI nursing department in Gauteng, South Africa. An overview of this study was covered in Chapter 1 in relation to the background from which the study problem emanated, as well as the objectives set out to achieve the study purpose. Chapter 1 also furnished an overview of the methodology followed in order to achieve the objectives, as well as the measures to maintain trustworthiness of the research. A theory generating, exploratory and descriptive research design utilising a mixed model research approach was used to achieve the purpose and objectives of this study. The Positive clinical Learning Environment model evolved systematically through three phases (see Chapter 3, Section 3.4 for a detailed description).

7.2. PURPOSE OF THE STUDY

The purpose of this study was to develop and describe a model to promote a positive clinical learning environment for the nursing students at a selected tertiary institution in Gauteng, South Africa.

7.3. OBJECTIVES OF THE STUDY
In order to successfully accomplish the purpose of this study, the following objectives were to be met:

- To assess and describe the perceptions of the nursing students with regard to the clinical learning environments at the hospital.
- To determine the views of the nursing students with regard to the preferred clinical learning environments at the hospital.
- To assess and describe the perceptions of hospital registered nurses with regard to the clinical learning environments at the hospital.
- To determine the views of the hospital registered nurses with regard to the preferred clinical learning environments at the hospital.
- To develop a model to promote positive clinical learning environments for the nursing students at the hospital.
- To evaluate the model to promote positive clinical learning environments at the hospital.

7.3.1. Phase one
Phase one of this study addressed the first four objectives concurrently. The presentation of the objectives and how they were achieved in this study follows.

7.3.1.1. Objective no 1

To assess and describe the perceptions of the nursing students with regard to the clinical learning environments at the hospital.

An extensive literature review was conducted in order to identify the concepts relevant for clinical learning environments, and how these could be used to promote a positive learning environment for the nursing students at tertiary. The perceptions of the nursing students with regard to clinical learning environments were assessed quantitatively by means of the CLE assessment questionnaire (Chapter 3, Section 3.4.5.1) in order to identify concepts relevant for the model. The findings from the survey demonstrated that the nursing students had negative perceptions of their clinical learning environments, confirming findings from literature review.
7.3.1.2. Objective No 2

To determine the views of the nursing students with regard to the preferred clinical learning environments at the hospital.

The views of the nursing students with regard to the preferred clinical learning environments were captured through structured open-ended questions constituting section C of the CLE assessment questionnaire (Chapter 3, Section 3.4.5.6). Qualitative data was intended to elicit the nursing students’ views with regard to the aspects of the wards that promoted and hindered their learning while in clinical practice, as well as the preferred clinical learning environments. Their responses were coded and analysed thematically. The themes that were derived from the structured open-ended questions were complimentary to the quantitative findings. The main concepts, supportive interpersonal relationship and effective clinical supervision emanated strongly from the themes derived from students’ responses. These concepts provided the basis for model development from the students’ point of view.

7.3.1.3. Objective No 3

To assess and describe the perceptions of hospital registered nurses with regard to their clinical learning environments at the hospital.

The perceptions of the hospital registered nurses were also assessed quantitatively through the use of the CLE assessment questionnaire. The findings of this study showed that contrary to the nursing students, the registered nurses perceived the clinical learning environments in a positive light. The results were consistent with literature (Lekhuleni et al., 2004:8; Lapeña-Moñux et al., 2016:5).

7.3.1.4. Objective No 4
To determine the views of the hospital registered nurses with regard to the preferred clinical learning environments at the hospital.

Similarly to the nursing students, the registered nurses’ views regarding the preferred clinical learning environments were determined with structured open-ended questions. The registered nurses’ responses from the open-ended questions were also coded and analysed thematically. The resulted themes were also similar to the dimensions of the Clinical Learning Environment Assessment Questionnaire confirming its reliability. The concepts, healthy work environments and partnership came out strongly from the hospital registered nurses’ responses.

7.3.2. Phase 2
The results of Phase 1 subsequently led to Phase 2 of this study and informed the achievement of objective no 5. Objective 5 was informed by the findings from the data collected in phase 1, as well as literature review

7.3.2.1. Objective No 5

To develop a model to promote positive clinical learning environments at the hospital

The Positive Clinical Learning Environment model was developed using the steps of the theory development process described by Chinn and Kramer (2011:176) (Chapter 6, Section 6.2). The main concepts conceptualised in Chapter 5, Section 5.2 were aligned and integrated with the other associated concepts from the survey list by Dickoff et al (1968) as cited by Meleis (2012:129), as well as the theoretical framework guiding this study based on the work of Donabedian’s theory of ‘structure-process-outcome’, and the Benner's theory of ‘From novice to expert’ to construct the model. The model to promote positive clinical learning environment for the nursing students at tertiary was schematically presented in Chapter 6 as Figure 6.5 and 6.12. The model was subsequently evaluated and refined in Phase 3.
7.3.3. Phase 3
The model was evaluated to ensure that it is aligned with its purpose and whether it was relevant to be applied in clinical practice.

7.3.3.1. Objective No 6

To evaluate the model to promote positive clinical learning environments at the hospital

The Positive Clinical Learning Environment model for the nursing students at tertiary was self-evaluated by the researcher and peer reviewed by experts in model development (chapter 6, section 6.4). The model evaluation guidelines suggested by Chinn and Kramer (2011:190) were used as a framework to guide the evaluation process. The model was subsequently refined following the experts’ recommendations.

From the above information, it can therefore be concluded that the objectives of this study were successfully carried out and the purpose thereof, attained

7.4. CONTRIBUTION OF THE STUDY TO THE BODY OF KNOWLEDGE

The Positive Clinical Learning Environment model for the nursing students at tertiary might contribute vastly to the body of knowledge in nursing practice, education and research.

- Nursing practice
The Positive Clinical Learning Environment model for the nursing students at tertiary as the first of its kind in the country, might usher in a new light and change the manner in which the nursing students are treated in clinical practice. The Positive
Clinical Learning Environment model might be useful in nursing practice, especially considering the poor state of the clinical learning environments across the country (The National Strategic Plan for Nurse Education, Training and Practice, 2012:22). The lesson that can be learnt by the clinicians from this model, might bring relieve to the call made by the Ministerial Task Team (MTT) to turn the clinical practice into Positive Practice Environment (PPE) (The National Strategic Plan for Nurse Education, Training and Practice, 2012:11). The implementation of the model, especially with the creation of healthy work environment for nurses, might also help the health care services policy makers to base their planning on evidence-based research.

- **Nursing education**
The Positive Clinical Learning Environment model might help the nursing education institutions in the structuring of their curriculum. The nursing education institutions might use the results of this study to inform their nursing students' clinical placement. The working partnership between the health care services and the nursing education institutions might contribute to the capacity building for hospital registered nurses. The results might be of more educated registered nurses who will be in a position to can support and supervise the nursing students effectively.

- **Nursing research**
The results of this study might provide basis for future research. The assumptions provided in the model can be investigated so that they can be confirmed by research.

### 7.5. LIMITATIONS

The following limitations as stated herein were considered in relation to the contextual and methodological aspect of this research study. This study was contextualised to one hospital, which proved to be a limitation. As such, the results of this study cannot be generalised, but they can however be transferable to other health care institutions in order to help inform the promotion of positive clinical learning environment. The use of one sample of nursing students from one tertiary
institution was a limiting factor. The findings can therefore not be generalised, but can nonetheless provide basis for further research.

7.6. RECOMMENDATIONS

The findings of this study demonstrated that the nursing students perceived the current clinical learning environment in negative light. The nursing students also provided their views with regard to the preferred forms of clinical learning environment, in which they suggested the need for effective clinical supervision and supportive interpersonal relationships between them and clinical staff. The hospital registered nurses on the contrary perceived the clinical learning environments to be positive. However, they raised concerns with regard to their unhealthy working environment with regard to lack of human and material resources. They also indicated the need for a cordial working relationship between them and the selected NEI nursing science department.

The model to promote positive clinical learning environment for the nursing students was developed with the intention of creating a conducive learning environment for nursing students while in clinical practice. Therefore, in order to make the clinical learning environment conducive for the nursing students, the model to promote positive clinical learning environment should be instituted and applied accordingly. The recommendations for clinical nursing practice, nursing education and research are therefore tabulated in Figure 7.1. The recommendations for nursing practice, education and research are discussed next

- Nursing practice

The health care service policy makers and managers have a duty to look after the welfare of clinical staff and clients. The clinical staff have right to work in a healthy work environment, including the nursing students. In order to do that, the health care service policy makers and managers must ensure that there are adequate resources so that quality patient care and students’ clinical learning takes in a positive learning environment. The clinical managers must ensure that there are adequate number of
nursing personnel on duty, especially the registered nurses so that they can teach students. All the stakeholders, clinical staff, nursing students and the academics must have an open communication based on mutual respect. Open and respectful communication may promote healthy relationships. The ward staff must be friendly and helpful towards nursing students so that they can feel as part of the team and have sense of belonging.

Figure 7.1: Recommendations for nursing practice, nursing education and research

- Nursing education
The higher education institutions have duty to provide capacity building for the clinical staff so that they can have the ability and confidence to teach nursing students doing degree course without feeling inferior. The nursing education institutions must involve the clinical staff in the planning of students’ clinical programs so that they are conversant with what to teach students when in clinical practice. The nursing education clinical facilitators must provide the clinical staff with the students’ clinical learning objectives and outcomes so that nursing students get relevant teaching. Being provided with clinical learning objectives and outcomes will ensure that the nursing students are delegated tasks accordingly.

- Research
The findings of this study provide the basis for research. The suggested relationships between concepts in the Positive Clinical Learning Environment model can be researched further so that they can be proven. For an example, the model suggested that the advancement of the nursing students through skills acquisition levels might be affected by the instructional methods in place. The relational statements can be researched further so that the clinical teaching is based on evidence-based practice.

7.7. CONCLUSION
Chapter 7 signals the conclusion and end of this study. This chapter evaluated the whole study to ensure that the objectives set forth to achieve the purpose, were accomplished. Chapter 7 also pointed out the contributions of this study to the body of nursing knowledge, as well as the recommendations with regard to nursing practice, nursing education and research. Notwithstanding the contextual and methodological limitations encountered in the research process, this study however provided an insight into the quality of the clinical learning environment that the nursing students are exposed to. The negative perceptions of the clinical learning environments by the nursing students is a key finding warranting careful consideration by both the health care institutions and the institutions of higher education when planning and implementing the clinical programmes.

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ANNEXURE A

SMUREC APPROVAL LETTER
ANNEXURE B

HOSPITAL REQUEST AND PERMISSION LETTER
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INFORMATION LEAFLET AND CONSENT FORM
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STUDENTS’ QUESTIONNAIRE
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NURSING SCIENCE DEPARTMENT
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