UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

The clinical learning needs of students in an emergency nursing programme

by

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Submitted in fulfilment of the requirements
for the degree of

MAGISTER CURATIONIS

in the subject

Trauma and Emergency Nursing Science

at the

Department of Nursing Science

UNIVERSITY OF PRETORIA

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December 2010

Declaration

Student number: 25399919

I declare that **THE CLINICAL LEARNING NEEDS OF STUDENTS IN AN EMERGENCY NURSING PROGRAMME** is my own work and that all sources that have been used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted for any other degree at any other institution.

Sharmienne Dance

Date

Acknowledgements

I would like to express my greatest thanks and deepest appreciation to:

- Jesus Christ, my Lord and Saviour, who granted me my talents and abilities, and charged me to use them to make a difference in other people's lives
- My father, my mother and my sister, who have been constant sources of guidance, support and inspiration – spiritually, morally and intellectually – throughout my life
- My family and friends for their love and tolerance, the completion of this study would not have been possible without their help and encouragement
- Dr T Heyns and Prof SP Hattingh, for your patience, perseverance and guidance
- Mrs I Coetzee, for your additional assistance
- The facilitator of the focus group
- The participants of the focus group for their time
- Retha Visagie, the independent coder
- Chanelle Peverett, the literature editor
- Rina Coetzer, for her professional layout, formatting and finalising of the manuscript

Dedications

This study is dedicated to:

- *My family*
- *Elaine Nicholson, my cousin, she was the best nurse I have ever known*
- *My colleagues of the nursing profession, for instilling a sense of pride and purpose in the career path I chose*

Abstract

The clinical learning needs of students in an emergency nursing programme

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The study entailed an evaluation of the clinical component of the emergency nursing programme by using a qualitative, contextual, explorative and descriptive design. Data was collected through the use of the naïve sketch and the focus group. One central theme emerged, namely, learning support, which was directly related to the seven related categories, namely, private versus public sectors of health, student status, exposure to learning opportunities, theory-practice integration, clinical accompaniment, "buy-in" from management and working relationships. Students desire to have learning support within the clinical learning environment. Students are not part of the workforce and should have student status. Improved clinical accompaniment practices by clinical facilitators, mentors and fellow emergency nurse practitioners are needed. Students need exposure to clinical environments that promote theory-practice integration and senior hospital management and the unit manager should support and recognise the work of students. There is a distinct difference between the clinical learning environments of private and public sectors of health; there is more exposure to clinical learning opportunities and greater availability of clinical facilitators. Refinement of the emergency programme, based on the recommendations of the study, will enhance the student's experiences in the clinical learning environment.

Key concepts:
clinical facilitator, clinical learning environment, clinical learning needs, emergency nursing programme, mentor

Table of contents

Page

Table of contents

Table of contents

Table of contents

Table of contents

List of tables

List of figures

Page

List of annexures

List of abbreviations

CLEI	Clinical learning environment inventory
ICN	International Council of Nurses
RN	Registered Nurse
SANC	South African Nursing council
SAQA	South African Qualifications Authority
UK	United Kingdom
USA	United States of America

Chapter 1

Orientation to the study

"All men by nature desire knowledge"

Aristotle 384-322BC

1.1 INTRODUCTION

Nurses are the largest component of the national workforce in most countries and frequently the subject of significant change and challenge in terms of their roles. Worldwide the economic challenges facing most countries of the world has forced service planners and leaders to look carefully at the contribution of nurses in the provision of essential services (Leary & Oliver 2010: 1). Leaders in the nursing profession have always emphasised the importance of learning in the clinical learning environment to provide quality, effective and person-centred care (Berntsen & Bjørk 2010: 17; Chan 2002b: 517). Of all the developments in nursing, the role of the specialist nurse has been one of the most exciting but, according to Leary and Oliver (2010:1), one least understood and valued.

The purpose of post-basic nursing education is specifically directed at the development of the clinical specialist nurse as an adult on a personal level as well as a professional level. Cognitive, affective and psychomotor development should be completed in the learning process (Morgan 2006: 155). The development of analytic, critically evaluative and creative thinking skills are therefore of utmost importance for nurses to function optimally within their specialist clinical environments. Creative thinking skills that is developed through clinical education is a vital component of all nursing programmes and more so in the critical care specialities such as emergency nursing. The development of critical thinking skills enables the nurse to become a competent professional who can make independent clinical judgments in order to render optimal nursing care to patients that is safe

and within their scope of practice (SANC 1984: 5). According to Morgan (2006: 159), the learning needs of professional nurses in post basic training programmes and the level of care they provide to patients will be affected if they do not have the ability to link theory and practice. Jerlock, Falk and Severinson (2003: 219) further indicate that development of confidence and ability to make independent decisions in the clinical field is hampered if nurses are unable to see the connection between theory and practice.

The Emergency Nurses Association (2007a: 1) supports this statement and adds that nurses who possess knowledge and skills of the theory and practice of their specialist field significantly reduce the morbidity and mortality of patients as they are able to provide competent care.

Students, who enrol for post-basic programmes such as emergency nursing, work in environments that are practice-based. However, classroom based knowledge supports clinical practice. Co-operation is therefore important between the nurse educators, clinical facilitators, preceptors and professional nurses working in the various specialities, in order to ensure that the needs of students in practice setting are met so that maximum clinical experience is attained (Jerlock *et al* 2003: 22).

1.2 BACKGROUND TO THE STUDY

This background provides an overview of the emerging of emergency nursing, an overview of nursing education in South Africa with specific emphasis on emergency nursing, theory and practice in emergency nursing, nursing institutions which provide emergency nursing training, the nurse educator, adult learning, learning needs, problem-based learning, the clinical learning environment, experiential learning and clinical facilitation. Concepts given in the background to the study serve as an introduction and will be discussed in more detail in chapter 3.

1.2.1 The emerging of emergency nursing

Nurses have worked in the emergency environment as early as 1451, when Queen Isabella of Spain is believed to have been the first person to introduce camp hospitals in war zones to tend to the injured (Masson 1985: 49-50). Education and training in emergency nursing as a clinical specialisation field started in the state of Maryland, United States of America (USA) in 1975 (Mc Quillan, Von Reuden, Hartsock, Flynn & Whalen 2002: 15).

1.2.2 Nursing education in South Africa

In South Africa, Medical and Surgical Nursing Science, of which Emergency Nursing forms one of the post-basic specialisation fields, is an essential nursing speciality and recognised as such by the South African Nursing Council (SANC) in Regulation No. 212 (SANC 1993: [Sa]). The SANC has not declared an official scope of practice for emergency nurses, although the emergency nurses are registered with an additional qualification in nursing (SANC 1993: [Sa]).

The specific nursing education institution has been presenting the emergency nursing programme since 1997. On average, 15 to 20 registered nurses have completed the emergency nursing programme per year since 1997 (Heyns 2010). One tertiary nursing education institution in KwaZulu-Natal presents an emergency nursing programme, where, on average, 10 registered nurses complete the programme per year. Private nursing education institutions, such as Medi-Clinic and Netcare, present short emergency nursing courses of six months to one year duration (Heyns 2010).

Emergency nurses are important in South Africa; they form part of the first level of care when the patient has first contact with the health care system via the emergency unit. Emergency nurses are expected to possess skills and competencies to enable them to deal with any crisis. Brysiewicz and Bruce (2008: 131) are of the opinion that more needs to be done to enhance the training of more emergency nurses because the numbers of emergencies that needs specialist intervention are escalating.

1.2.3 Theory-practice education in emergency nursing

Nursing education is broadly centred on the patient and the nurse. It can be postulated that if nursing education achieves its objectives, patients should logically receive quality care. Life however is not that simple because the nurse and the patient do not exist or co-exist in a vacuum. Education of nurses, whether in general or specialised fields, such as emergency nursing, is comprised of learning that occurs in the clinical and the classroom setting. In the classroom setting, alternatively referred to as the academic or theoretical setting, a significant amount of time is spent learning about the theoretical underpinnings of nursing and also other related subjects such as the life sciences and social sciences (Watson, Thompson & Li 2010: 596).

Theory learnt in the classroom provides knowledge about normal and abnormal physiology and anatomy, diagnostic tests and treatment modalities for a variety of human illnesses and injuries. The student has to be taught the theory that underlies illness and injury because it promotes a scientific approach to emergency nursing at the bedside. While the theoretical knowledge is acquired in the classroom setting and can be found in textbooks, the nursing student has the opportunity to link theory with practice when working in the clinical setting where "practice" is associated with the activities involved with caring for patients (Ousey & Gallagher 2007: 200). It is while learning in these two spheres of theory and practice that the nursing student has learning needs that have to be attended to. These learning needs are related to the concept of the student as an adult learner with needs; needs analysis is discussed in section 3.3.1.5.1.

1.2.4 Nursing education institutions

The South African government has established an authority, the South African Qualifications Authority (SAQA) and this authority is mandated by government to develop a National Qualifications Framework (NQF) which is intended to improve the quality of education and training (SAQA 1995: 1). Nursing Education Institutions therefore have to have quality management systems in place to ensure that SAQA requirements are adhered to; the customers' needs and requirements

(of which the student is a customer) should give direction to the nursing education institution when they review their service to students (Booi 2008: 21).

The emergency nursing programme evaluation plays a role in quality assurance and resultant curriculum change. This evaluation can be quantitative (looking at numeric scores of students), or qualitative, which involves words and thus rich descriptions of phenomena (Frye, Solomon, Lieberman & Levine 2000: 9). Phenomena include students' experiences, needs and expectations of the programme. Nursing education institutions that provide emergency nursing programmes have a responsibility to ensure that the learning experience of the student is cutting-edge and the emergency nursing programmes presented have to be reliably evaluated so that possible changes and improvements can be made to the programme. Nursing education institutions have to ensure that nursing education standards are maintained and that they constantly adapt the emergency nursing programme to the changes that occur in health care sector clinical learning environments.

The responsibility of quality assurance in nursing education is also shared by the South African Nursing Council in the form of regulations relating to the training and education of nurses, for example, Regulation 212 (as amended) that relates to regulations relating to the course in clinical nursing science leading to the registration of an additional qualification (SANC 1993: [Sa]). The SANC must make sure that all relevant SANC regulations are complied with before it can accredit a nursing education institution to educate nursing students.

1.2.5 The nurse educator

Nurse educators are role-players in nursing education institutions and clinical settings internationally. Landers (2000: 1553) describes a "*nurse teacher*" as a person who fulfils a role in the classroom setting and the clinical setting. Uys and Gwele (2005: VI) state that nurse educators have dual roles because they are nurses and educators. According to The National League of Nursing in Minnesota, USA in 2005 (cited in Kalb 2005: 217), nurse educators possess certain core competencies which are essential to address the learning needs of students. Kalb (2005: 217), indicates the crucial and influential roles that the nurse educator plays

in the clinical learning environment to promote optimal learning of students enrolled for the emergency nursing programme, these are discussed in chapter 3 (3.3.1.5).

In the training of emergency nurses, a nurse educator's role in the clinical setting is to enhance the development of specific skills of students. It also includes theory-practice integration and evaluation of clinical competence in the key performance areas. However, one specific individual does not solely fulfil this role; it is rather shared with clinical facilitators and qualified emergency nurses working alongside the student.

1.2.6 The student as adult learner

Students, their experiences and their expectations, have been a subject of much research in nursing education (Henderson, Twentyman, Eaton, Creedy, Stapleton & Lloyd 2009; Lambert & Glacken 2005; Beskine 2009; Henderson, Winch & Heel 2006); yet the student continues to be studied and consulted in research because nursing education institutions and clinical learning environments are ever-changing and this always leads to effects on the student.

The student enrolled for the emergency nursing programme is an adult learner. Gravett (2005: 7) defines adult learners as people who participate in educational activities, they fulfil a typically adult role in society and their main life task is not related to education. The student has life experiences, educational experiences and nursing-related experiences that influence their expectations and learning needs (Gravett 2005: 8); this affirms that each student is a unique individual.

The student enrolled for the emergency nursing programme comes with life experiences, but also experiences from their respective emergency units where they work and therefore their individual clinical learning needs are unique. The value placed on the students' clinical learning needs reflects that learning is student-centred. Research in 2007 into empowerment of students revealed that being understood, being part of the team, and being encouraged to learn were important aspects of student empowerment (Bradbury-Jones, Sambrook & Irvine 2007: 345).

1.2.7 Learning needs

The students' status of being adult learners means that they have attributes such as "*autonomy*", "*responsibility*" and "*independence of judgement*" and thus they should be trusted to determine their own learning needs (Gravett 2005: 11). The students, as autonomous individuals, have a responsibility to blend their own needs and expectations with the programme objectives, but their needs should "*not determine course content and educational processes*" (Gravett 2005: 11). Grant (2002: 156) advises that a robust assessment of learning needs is a vital step in planning education, but is often missed.

Heimlich and Norland (1994: 192), cite four steps of a needs analysis, namely, identifying the "*desired*", and the "*existing states*", and assessing and prioritising the gaps. These will be discussed in chapter 3 (see Section 3.3.1.5.1). The needs analysis described by Heimlich and Norland (1994: 192) should ideally be done beforehand or during the first session of contact when the emergency nursing programme commences; the clinical learning needs assessment can be formal or informal. A learning needs assessment specifically for the clinical learning environment therefore provides direction and structure for reaching clinical learning needs of students.

1.2.8 Problem-based learning

Problem-based learning is an approach to learning in which learners tackle problems in small groups under the supervision of a teacher (Uys & Gwele 2005: 127). The clinical facilitator and emergency nurse practitioners fulfil this role of clinical teacher. The emergency nursing programme advocates the application of the principles underlying a problem-based learning approach in the clinical learning environment, namely, that knowledge is constructed, the lecturer facilitates learning, contextual learning and learning is the responsibility of the learner (Uys & Gwele 2005: 127). Problem-based learning will be discussed in more detail in chapter 3 (see Section 3.3.1.5).

1.2.9 Clinical learning environment

The clinical learning environment is *"the environment in which nursing takes place"* (Government of Ireland 2000: 5). A learning environment can be divided into the classroom and clinical environment (Papp, Markkanen & von Bonsdorff 2003: 263). The clinical environment can be further divided into the nursing environment and the learning environment in which the student works (Papp *et al* 2003: 266). The students are ideally situated in the clinical learning environment to reach their goal of becoming emergency nurse practitioners. The clinical learning environment is a network of interactive forces within the clinical setting that influences the student's clinical learning outcomes; it is an important element in the whole learning process (Papp *et al* 2003: 266).

Clinical learning experiences are important because it provides opportunities for role learning, applying learned knowledge and skills, uniquely clinical learning, service learning and repeated practice (Uys & Gwele 2005: 79, 80). These are discussed in more detail in chapter 3 (see Section 3.3.1.4).

1.2.10 Experiential learning

Through clinical learning, students are able to learn experientially while in the clinical setting (Croxon & Maginnis 2009: 237). The Experiential Learning Theory draws on work from 20th century scholars, such as Dewey, Lewin, Piaget, James, Jung and Rogers (who gave experience a central role in their theories of human learning), to develop a model of experiential learning (Kolb & Kolb 2005: 194). These authors describe six propositions of the Experiential Learning Theory which is further discussed in chapter 3 (see Section 3.3.1.3.). The Experiential Learning Theory reinforces the notion that to be effective, nursing students perceive information, reflect on how it impacts their lives and compare how it fits into their own experience (Conner 2007: 2).

1.2.11 Clinical facilitation

Supervised clinical practice plays a significant role in nursing studies (Häggman-Laitila, Elina, Riita, Kirsi & Leena 2007: 382). Clinical facilitation is needed in order

to qualify students for applying their knowledge and competence in their professional lives (Häggman-Laitila *et al* 2007: 382); it forms a part of the clinical rotation of the student in the emergency nursing programme.

A clinical facilitator is an essential link in the education of nurses, this person facilitates learning by teaching, guiding and assessing the nursing student in the clinical learning environment to enhance theory-practice correlation. This view is shared by Yonge, Billay, Myrick and Luhanga (2007: 3), who state that the clinical facilitator plays an integral part in bringing theory and practice together in the clinical environment. The student has to acquire advanced skills in order to become an emergency nurse practitioner and someone has to ensure that the new skills are taught and demonstrated properly, this is a clinical learning need. Yonge *et al* (2007: 3) confirm that an educational relationship should exist between the student and the clinical facilitator. Typically, the student and the clinical facilitator are in one another's company in the clinical learning environment for the duration of the programme, which is two years, during that time a relationship is forged that can promote the attainment of the students' various clinical learning needs. The student enters the programme with a set of skills and with the clinical facilitator's help and guidance; they will become competent emergency nurse practitioners with advanced skills. The clinical facilitator within the context of this study is further discussed in more detail in chapter 3 (see Section 3.3.1.5).

1.3 PROBLEM STATEMENT

In view of Burns and Grove (2007: 98), the research problem identifies an area of concern for a specific population, indicates the significance of the problem, provides a background for the problem and outlines the need for additional research.

Nursing is predominantly a practice-based profession (Lambert & Glacken 2005: 664; Williamson & Webb 2001: 285). It is vital that nursing education continues to have a strong practical element, despite its full integration into higher education institutions.

Clinical placement is an essential part of the emergency nursing programme, which is consistent with the view of Chan (2002a: 69). Clinical placement allows the

students to consolidate knowledge and skills in a workplace situation because they are expected to consolidate knowledge, skills, attitudes and values inherent in the emergency nursing profession. Clinical experience is an integral part of nursing education (Sharif & Masoumi 2005: 2) – the clinical learning environment can ultimately determine the success or failure of the student.

Not all practice settings are able to provide students with a positive learning environment (Chan 2002a: 74). This is echoed by Kelly (2007: 886) who found that *"there is an urgent and compelling need to gain better understanding of what constitutes effective clinical teaching and to explore the impact of the clinical environment on students' learning".*

The theoretical component of the emergency nursing programme is evaluated on a continuous basis. Students complete an evaluation instrument annually in order for the specific nursing education institution to collect information on four key areas, these being teaching abilities of the lecturer and content addressed, professionalism of the lecturer, facilitation of learning and assessment of the students. Clinical learning is an integral part of the education, yet the students' learning needs in the clinical learning environment are not evaluated (Heyns 2008). A needs analysis, as recommended by Gravett (2005: 12), is not done by the specific nursing education institution.

Past research projects have indicated the development needs regarding the clinical facilitators' role and the co-operation that should exist between facilitators and students during supervision of students in the clinical learning environment. This is consistent with the findings of Häggman-Laitila *et al* (2007: 383). Students need clinical guidance and accompaniment by the clinical facilitator to ensure that there is a fusion of theory with practice. The approach utilised to teach students in the clinical learning environment should be student-centred and needs-based. In addition, the clinical learning environment provides the student enrolled for the emergency nursing programme with opportunities to put theory into practice (Elliot 2002: 69). For this reason, the success of the programme hinges largely on the clinical component of the programme, which should therefore be utilised to address the learning needs of the students. This statement is supported by Pearcey and Elliot (2004: 386). The emergency unit is a unique setting; the provision of

education to nurses in a "*meaningful, timely, standardised and coordinated manner*" remains a challenge for educators and managers of most emergency units (Leon & Morris 2008: 54).

Forming an integral component of an ongoing evaluation process of the emergency nursing programme, the data obtained from this study can be utilised to propose recommendations which can be used to further develop and enhance the clinical component of the emergency nursing programme. This study aims to evaluate the clinical component of the emergency nursing programme, through exploring the clinical learning needs of the students at a specific nursing education institution.

The specific nursing education institution strives towards a quality learning experience for every student within a learning orientated programme. By exploring the clinical learning needs, the environment itself is evaluated.

1.4 RESEARCH QUESTION

Based on the problem statement, the following research questions were formulated:

- What are the clinical learning needs of students at a specific nursing education institution?
- How do the demands of the emergency environment affect the needs of the student enrolled at a specific nursing education institution?
- What role does the facilitator play in satisfying the needs of the student enrolled for the emergency programme at a specific nursing education institution?

1.5 RESEARCH AIM AND OBJECTIVES

The overall aim of the study is to evaluate the clinical component of the emergency nursing programme, through exploring the clinical learning needs of the students at a specific nursing education institution.

In order to reach the aim of the study, the objectives of the study are to

- Explore and describe the clinical learning needs of students rotating through the emergency unit
- Explore and describe the clinical learning needs of students rotating through the critical care unit
- Propose recommendations towards programme refinement pertaining to the clinical component of the emergency nursing programme

1.6 SIGNIFICANCE

The researcher envisages that the findings of the study have the potential to contribute essential and relevant information for nurse educators and students in the clinical learning environment, and the specific nursing education institution.

1.6.1 Significance for nurse educators

Nurse educators in the classroom setting and in the practice setting will have insight into the clinical learning needs of students. Educators in the classroom can come to a deeper understanding of the positive and negative factors in the clinical learning environment that impact upon the students. Nurse educators in the clinical environment stand to benefit from the findings relating to students' experiences and recommendations regarding clinical learning needs in the clinical learning environment. They can possibly re-direct their educational methods to a problem-based approach, thus facilitating and making learning in small groups in the clinical learning environment possible.

1.6.2 Significance of the study to students

During this study, students were granted the opportunity to give valuable input, pertaining to their first hand experiences as students, of their clinical learning needs in the clinical learning environment utilised for the emergency nursing programme. Students' inputs are valued and appreciated, enhancing a student-centred approach to education and teaching. If findings and recommendations of

this study are incorporated into the emergency nursing programme, then the student's clinical learning needs and their clinical learning experiences will improve.

1.6.3 Significance to the specific nursing education institution

The specific nursing education institution can benefit from this study as it will have access to the research findings and recommendations which can offer them the opportunity to evaluate the current clinical learning environment utilised for the emergency nursing programme. This will also enhance a student-centred approach.

Additionally, the study may form part of proof of quality management of the specific nursing education institution where the study was conducted, as mandated by the SAQA and the SANCl.

1.7 SCOPE AND LIMITATIONS

Limitations can be seen as restrictions or weaknesses in research (Polit & Beck 2008: 74). The title of a study dictates its focus as the student. The students are enrolled for the emergency nursing programme and their clinical learning needs in the clinical learning environment, which comprise the emergency unit and critical care unit, are explored and described. From the outlook of this study it is; therefore, not a direct investigation of clinical facilitation, the clinical facilitator, the nursing education institution, or the theory-practice gap.

One of the limitations of qualitative research studies is the lack of generalisability of the findings that must be acknowledged (Holloway & Wheeler 2002: 35). The aim of this research is concerned with a specific sample and it may be regarded as a limitation. The limitation of this study can be considered to be only applicable to students enrolled at the specific nursing education institution where the study was conducted.

1.8 RESEARCHER'S FRAME OF REFERENCE

The researcher's frame of reference of the study can be described in terms of the chosen paradigm, assumptions relative to the paradigm and conceptual definitions.

1.8.1 Setting

Qualitative research follows the naturalistic paradigm based on the assumption that multiple realities exist, and that research participants construct such realities (Polit & Beck 2010: 261). Qualitative research aims to explore the phenomenon in question by focusing on the individuals who experience it (Burns & Grove 2005: 747).

The study was conducted at a specific tertiary nursing education institution in the Gauteng Province, South Africa. The nursing education institution under study presents a four year under-graduate nursing programme as well as post-basic programmes for registered nurses, aiming to specialise in specific clinical areas. One of the options is specialisation in emergency nursing, resulting in registration of an additional qualification in "Medical and Surgical Nursing Science: Trauma Emergency Nursing" at the SANC. The programme is presented over a period of two years.

The emergency nursing programme is designed to enhance and develop specific knowledge, assessment and clinical decision-making skills for registered nurses practising in the emergency environment. The emergency nursing programme consists of two components, namely, a theoretical and a clinical component, with the aim of theory-practice integration.

Entry requirements for admission to the programme include a minimum of one year experience in the field of emergency nursing and clinical placement in an SANC accredited facility, which can be a public or private sector facility. The theoretical component is presented by a lecturer at the nursing education institution, using a variety of teaching strategies. The main focus is on case studies and problem-based learning.

A part of the clinical component is presented by the lecturer of the nursing education institution, using strategies such as demonstrations, case presentations and ward rounds. A further part of the clinical component takes part in the clinical practice setting, where the clinical facilitator plays a crucial role.

The clinical facilitator is an essential resource for the students and their common goal is to ensure that the student is successfully integrated into the emergency nursing speciality regarding professional socialisation and the acquisition of advanced skill/competencies. The clinical facilitator has to certify that the student has witnessed and performed various advanced skills. Formal formative assessment of selected advanced skills has to be done in the presence of a clinical facilitator, who determines and certifies competency thereof.

Students rotate through the emergency unit, critical care unit, theatre and pre-hospital environment. The primary clinical learning environment is the emergency unit, this is where skills are learned and mastered that make them capable of managing emergency situations and maintaining and saving a life. The student is issued with a clinical workbook that details the core competencies that need to be learned, practised and formally assessed before completion of the programme. The workbook contains templates for the completion of patient studies relating to pathology affecting organ systems of the adult and paediatric patient. The clinical workbook must be completed and submitted to the specific nursing education institution before the end of the second year of the programme, as part of the requirement for completion of the emergency nursing programme and for registration of an additional qualification with the SANC.

1.8.2 Role of the researcher

The researcher has been working in the field of emergency nursing for 10 years. She has successfully completed the emergency nursing programme at the same nursing education institution under study in 2006 and is registered with the SANC as midwife, community, psychiatric, general and emergency nurse. Since 2006, the researcher has been a clinical facilitator in an emergency unit that sends their registered nurses to the specific nursing education institution to complete the emergency nursing programme. Working as a clinical facilitator, the researcher

became aware of the clinical learning needs of registered nurses enrolled for the emergency nursing programme. This led to an interest in the topic of clinical learning needs and stirred a need to determine a better understanding of the needs of students in the clinical learning environment.

1.8.3 Paradigm

A paradigm is defined as *"a typical example, pattern or model of something"* (*Oxford Paperback Dictionary and Thesaurus* 2007: 652). According to Polit and Beck (2008: 761), a paradigm is *"a way of looking at natural phenomena that encompasses a set of philosophical assumptions and that guides one's approach to inquiry"*. Trigg (2001: 255) advocates that the philosophical groundwork must be undertaken before the researcher approaches the 'doing' phase of the research. This is consistent with the views of Wilson and McCormack (2006: 46). In addition, Somekh and Lewin (2005: 347) state that a paradigm is used to describe an approach to research which provides a unifying framework of comprehension of knowledge, truth, values and the nature of being.

Polit and Beck (2008: 15) describe that constructivists believe that reality is not a set entity but, instead, a composition of all individuals participating in a study. This suggests that reality exists within a context and that many options or constructions are possible. Constructs develop through individual understanding of external social and cultural factors.

The constructivist paradigm, also referred to as the naturalistic paradigm according to Polit and Beck (2008: 15), will guide this study. Doolittle (2004: 1) holds the view that constructivism is a theory of learning that has roots in both philosophy and psychology. The essential core of constructivism is that people actively construct their own knowledge and meaning from their experiences. Medley (2008: 1) states that constructivism is based on the idea that individuals learn when comparing new information to what they already know. By using analysis and synthesis, researchers develop new knowledge and insight based on the results of new information and what is already known. When this occurs, new knowledge is constructed, which forms the basis of research.

1.8.4 Assumptions

Burns and Grove (2005: 728) define assumptions as statements taken for granted or considered true, even though they have not been scientifically tested. In studies, assumptions are embedded in the philosophical base of the framework, study design and interpretation of the findings (Burns & Grove 2005: 39).

Table 1.1: Major assumptions of the constructivist paradigm and application

TYPE OF ASSUMPTION	ASSUMPTION	APPLICATION
The nature of reality	Reality is multiple, subjective and mentally constructed by individuals	• Students enrolled for the emergency nursing programme have clinical learning needs within the clinical learning environment • The clinical learning needs of students are related to their experiences within the clinical learning environment. • The students experiences of clinical learning have positive and negative aspects
Role of values in the inquiry	Subjectivity and values are inevitable and desirable	• The researcher is an emergency nurse working in the private sector of health care • The researcher is a clinical facilitator for the emergency nursing programme • The researcher was previously a student enrolled for the emergency nursing programme and successfully completed it • The participants were past and presently enrolled students for the emergency nursing programme
The relationship between the researcher and those being studied	The researcher interacts with those being researched and findings are the creation of interaction	• Findings and recommendations of the study were a product of focus group interaction with participants • Findings and recommendations were also a result of the researcher having in-depth understanding of the clinical learning environments
Best methods for obtaining evidence/knowledge	Seeks patterns	• Focus group and naïve sketch analysis entailed identifying repetitive themes identified by participants
Best methods for obtaining evidence/knowledge (continue)	Emphasis on the whole	• The emergency and critical care units which formed parts of the clinical learning environment were investigated • The total clinical learning experience was investigated which led to identifying the

TYPE OF ASSUMPTION	ASSUMPTION	APPLICATION
		clinical learning needs of participants
	Focus on the subjective and non-quantifiable	• Knowledge, skills and experience of the researcher and participants contributed to the findings and recommendations of the study
	Narrative information, qualitative analysis	• Focus group discussions provided qualitative data that was used during data analysis • Naïve sketch data provided qualitative data that was used during data analysis • Through analysis, new knowledge was developed based on new information
	Context-bound; contextualised	• Clinical learning needs were investigated specifically within the context of the specific nursing education institution's emergency nursing programme
	Insider knowledge	• The researcher has been working in the emergency unit for 4 years as an emergency nurse practitioner and clinical facilitator • Knowledgeable, skilled and experienced researchers and participants participated in the study

Source: Adapted from Polit and Beck (2008:15)

1.8.5 Clarification of key concepts

A conceptual definition presents the theoretical meaning of concepts being studied; the terms used need to be defined by researchers (Polit & Beck 2004: 31). In the context of this research and for simplicity and consistency throughout the dissertation, the following key concepts are defined.

1.8.5.1 Clinical facilitator

Facilitator refers to the individuals who *"make something easy or easier"* (*Compact Oxford Dictionary for Students* 2006: 356).

The term clinical facilitator is used to describe a person who assists nurses in acquiring a new role in the clinical environment. The role of the clinical facilitator is to enhance and support clinical learning in practice, he/she teaches students practical skills and utilises the self-directed and reflective learning approaches

(Lambert & Glacken 2005: 670). Clinical facilitators directly supervise and assess students (Henderson *et al* 2009: 178). The clinical facilitator identifies students' clinical learning needs and provides personal support and clinical supervision, whilst students acquire the relevant skills. This is consistent with the views of Williamson and Webb (2001: 286).

For the purpose of this study, the clinical facilitator is an emergency nurse appointed in an emergency unit to facilitate the development of skills and knowledge of students who are enrolled for the emergency nursing programme.

1.8.5.2 Clinical learning environment

Clinical is defined as "*relating to the observation and treatment of patients (rather than theoretical studies)*" (*Compact Oxford Dictionary for Students* 2006: 179).

Learning refers to the *"knowledge or skills gained through study or being taught"* (*Compact Oxford Dictionary for Students* 2006: 578).

Environment is *"the surroundings or conditions in which a person lives or operates"* (*Compact Oxford Dictionary for Students* 2006: 333).

The clinical learning environment is the environment in which students perform skills related to the needs of patients and they provide physical, psychological, spiritual and social support to patients in order to promote and maintain safe, effective patient care (Carlson, Kotzé & Van Rooyen 2003: 32). Chan states that clinical field placement [in the clinical learning environment] is an essential part of a nursing curriculum and knowledge and skills are consolidated during *"fieldwork practice in a working situation"* (Chan 2002a: 69).

For the purpose of this study, the clinical learning environment refers to the emergency unit and critical care unit where students work while completing the emergency nursing programme.

1.8.5.3 Clinical learning need

Clinical is defined as "*relating to the observation and treatment of patients (rather than theoretical studies)*" (*Compact Oxford Dictionary for Students* 2006: 179).

Learning refers to "*knowledge or skills gained through study or by being taught*" (*Compact Oxford Dictionary for Students* 2006: 578).

A ***need*** is something that is wanted because it is essential or important. (*Compact Oxford Dictionary for Students* 2006: 679). Nursing is a practice-based profession and nurses prefer to be taught through teaching methodologies that are student-centred (Vaughan 1990: 933) and therefore the student's specific needs have to be addressed.

A single definition of clinical learning needs is not described, yet students' clinical learning expectations and factors relating to learning in the clinical environment are described. These include feedback, patient mix, supervision (Dolmans, Wolfhagen, Heineman & Scherpbier 2008: 2), a quality professional who guides learning (Lambert & Glacken 2005: 181), clinical supervision (Field 2004: 563) and support (Noonan, Hughes, Hayes, Hartigan, O'Connell, Cummins & Fehin 2009: 563).

For the purpose of this study, a clinical learning need is defined as a specific learning need of a student who is enrolled for the emergency nursing programme at the specific nursing education institution. This clinical learning need pertains to the clinical learning environment, which includes the emergency unit and the critical care unit.

1.8.5.4 Critical care unit

Critical refers to persons who are *"extremely ill and at risk of death"* (*Compact Oxford Dictionary for Students* 2006: 232).
The word ***"care"*** means to *"look after and provide for the needs of someone"* (*Compact Oxford Dictionary for Students* 2006: 143).

A critical care unit is a specific section in a hospital that is equipped for and capable of rendering care to extremely ill patients of all ages.

1.8.5.5 Emergency nurse practitioner

Emergency refers to *"situations or conditions having a high probablility of disabling or immediately life-threatening consequences or requiring first aid or other immediate intervention"* (*Online Medical Dictionary* 2010).

Nurse is defined by referring to them *as "Professionals qualified by education at an accredited school of nursing and licensed by state law to practise nursing. They provide services to patients requiring assistance in recovering or maintaining their physical or mental health"* (*Online Medical Dictionary* 2010). Buppert (2008: 26) defines a nurse practitioner as a nurse whose education goes beyond the basic education of a registered nurse. Buppert (2008: 26) also adds that additional education must be attained in courses offered in a university setting or in a nationally recognised organisation.

In the context of this study, the emergency nurse practitioner is a registered nurse with the SANC who cares for critically ill or injured patients. This individual is registered with the SANC as having an additional qualification in Medical and Surgical Nursing Science: Trauma and Emergency Nursing.

1.8.5.6 Emergency nursing programme

An ***emergency*** is "a serious, unexpected, and often dangerous situation requiring urgent attention (*Compact Oxford Dictionary for Students* 2006: 324).

Nursing means to *"give medical and other care to a sick or injured person"* (*Compact Oxford Dictionary for Students* 2006:695).

A ***programme*** is a *"planned series of events"* and entails *"a set of related measures or activities with a long-term aim"* (*Compact Oxford Dictionary for Students* 2006: 813). The SANC defines a course as *"a programme of education and training approved by the council presented by an approved nursing*

school"…"*which leads to a clinical nursing qualification*,"…"*that can be registered as an additional qualification*" (SANC 1993: 3). The Medical and Surgical Nursing: Trauma and Emergency Nursing programme forms part of the acknowledged post-basic programmes listed by the SANC (SANC 2009: [Sa]).

Throughout this study, the emergency nursing programme is one that is presented by the specific nursing education institution and is approved by SANC. This results in a specialised emergency nurse practitioner with the ability to render emergency care to ill and injured patients.

1.8.5.7 Emergency unit

An ***emergency*** is "a serious, unexpected, and often dangerous situation requiring urgent attention (*Compact Oxford Dictionary for Students* 2006: 324).

A ***"unit"*** is a "*self-contained or distinct section of a building, a subdivision of a larger grouping*" (*Compact Oxford Dictionary for Students* 2006: 1135).

For the purpose of this study, the emergency unit is a specific section in a hospital that is equipped for and capable of rendering emergency care to patients of all ages who are ill or injured and need immediate intervention. Such a unit is accredited by the specific nursing education institution as a clinical learning environment which is suitable for students who are enrolled for the emergency nursing programme.

1.8.5.8 Nursing education institution

The Nursing Act No. 33 of 2005 (Department of Health 2005: 6) defines a "*nursing education institution*" as any nursing education institution accredited by the SANC.

According to the SANC Regulation 425 of 1985 (1), a "*nursing college*" means a post-secondary educational institution which offers professional nursing education at basic and post-basic level where such nursing education has been approved in terms of section 15 (2) (SANC 1985a).

According to the SANC terminology list (SANC 1994: 21), a nursing education institution is a post-secondary educational institution approved by the SANC as a nursing school and which meets the following prerequisites:

- legal enablement for its existence and maintenance
  - co-operation agreement with a university
- organisational structures
  - College Council and its committee
  - College Senate and its committees
- approved curriculum
- approved system for the management of examinations
- adequately prepared teaching staff
- access to adequate facilities supported by formal agreements with authorities (public or private) in respect of each of the clinical facilities

For the purpose of this study the specific nursing education institution is a specific tertiary nursing education institution in Gauteng where the emergency nursing programme is offered.

1.8.5.9 Nurse educator

According to the *Mosby's Medical Dictionary* (2006), a ***"nurse educator"*** is a registered nurse whose primary area of interest, competence and professional practice is the education of nurses at the university level.

The *Free Dictionary* (2009: [Sa]) defines a ***"nurse educator"*** as a nurse who prepares licensed practical nurses and registered nurses for entry into practice positions. Nurse educators also teach in graduate programmes at masters and doctoral levels and prepare advanced practice nurses, nurse educators, nurse administrators, nurse researchers and leaders for employment in complex health care and educational organisations. Nurse educators practise at faculties in colleges, universities, hospital-based schools of nursing or technical schools, or as staff development educators in health care facilities.

For the purpose of this study, a nurse educator is referred to as an emergency nurse, with either a diploma or a degree in nursing education, who is involved in the education and training of the emergency nursing programme at the specific nursing education institution.

1.8.5.10 Student

A ***student*** is *"a person studying at a university or college";* it refers to "a *person studying to enter a particular profession"* (*Compact Oxford Dictionary for Students* 2006: 1029).

The *Online Medical Dictionary* (2007: [Sa]) explains that a nursing student is an individual enrolled in a school of nursing for a formal educational programme leading to a qualification in nursing. The *Online Medical Dictionary* (2007: [Sa]) defines a student as:

- a person engaged in study, one who is devoted to learning, a student, a pupil, a scholar; especially, one who attends school, or who seeks knowledge from professional teachers or from books; as, the student from an academy, a college, or a university; and
- one who studies or examines in any manner; attentive and systematic observer; as, student of human nature, or of physical nature

For the purpose of this study, the concept of student refers to a registered nurse enrolled for the post-basic emergency nursing programme at a specific nursing education institution.

1.9 RESEARCH METHOD

Polit and Beck (2006: 504) define the research method as the *"steps, procedures and strategies for gathering and analysing data in a research investigation".* The research method in this study consists of the research design and methodology.

The research design of this research is qualitative, contextual, explorative and descriptive in nature (view Section 2.4).

Methodology refers to the framework of theories and principles on which design and method are based (Holloway & Wheeler 2002: 287). Polit and Beck (2006: 223) state that research methodology refers to the techniques used to structure a study and gather and analyse the data in the course of the research investigation, which consists of a set of orderly, disciplined procedures to acquire information. The research methodology are summarised in Table 1.2.

Table 1.2: Summary of the methodology utilised in the study

POPULATION AND SAMPLING	DATA COLLECTION	DATA ANALYSIS	TRUSTWORTHINESS
Population The population consisted of students who are currently enrolled or have completed the emergency nursing programme at the specific nursing education institution. **Sampling** • Non-probability sampling • Purposive sampling **Sample size** 33 participants	Naive sketch Focus group: • Audio taped • Field notes	Content analysis: • Content categorised and re-organised • Literature control	Based on Guba's model of trustworthiness (Lincoln & Guba 1985) using four strategies: • Credibility • Transferability • Dependability • Confirmability

A detailed, more in-depth description of the method will be provided in chapter 2.

1.10 ETHICAL CONSIDERATIONS

The researcher compiled a research proposal which was submitted for approval. The Faculty of Health Sciences Research Committee (view Annexure A.1) and ethical approval was granted based on the research proposal. The proposal was a detailed plan that described the process that the researcher intended to follow in order to complete the study. This ensured that the researcher had a clear plan of how the study would be conducted, from beginning to end. The Department of Nursing Science granted permission to the researcher to invite students of the Department of Nursing Science to take part in research: Clinical learning needs of students in an emergency nursing programme (view Annexure A.2).

In research, there are moral principles governing the manner in which the research takes place. The study involves human participants and the researcher aims to protect these participants (Holloway & Wheeler 2002: 47). Careful attention has therefore been given to the ethical considerations as described by the Belmont Report quoted by Polit and Beck (2006: 86). Detailed discussions regarding ethical considerations also appear in Holloway and Wheeler (2002: 47-66), De Vos, Strydom, Fouche and Delport (2002: 62-76) and Burns and Grove (2005: 176-208). The following ethical principles were adhered to in this study:

1.10.1 Principle of beneficence

The researcher had a responsibility to *"above all do no harm"* (Burns & Grove 2005: 190). This is the most basic ground rule of research. The scope of this principle and its application in the study were as follows:

1.10.1.1 Protection from harm and discomfort

Discomfort and harm can be physical, emotional, social or financial (Polit & Beck 2006: 87). The researcher predicted only temporary discomforts, which entailed no more discomfort than ordinary life (Burns & Grove 2005: 190). The participants were informed well in advance of the focus group discussion to enable them to make prior arrangements. The researcher conducted the research in a safe

environment and ensured that the questions were phrased in such a way that they would not impose any harm.

1.10.1.2 Protection from exploitation

The researcher assured the participants that information they shared would not be used against them in any manner (Polit & Beck 2006: 88). The researcher assessed the risk/benefit ratio and also used an expert facilitator to conduct the focus group to ensure that the data collection process minimised emotional harm (De Vos *et al* 2002: 313). It was the researcher's honest opinion that the research would benefit the emergency nursing profession, as well as users of health care.

1.10.2 Principle of respect for human dignity

The researcher held the belief that participants were human beings who had the right to make their own decisions and express their personal opinions (Polit & Beck 2006: 88). The principle of respect for human dignity implied the following:

1.10.2.1 The right to self-determination

The right to self-determination was assured by informing the participants that their participation was voluntary and that they could refuse to divulge any information at any stage of the research (Polit & Beck 2006: 88-89). The participants were also informed that they could ask for explanations on any aspect of the study at any time (Polit & Beck 2006: 89).

1.10.2.2 The right to full disclosure

The participants received an information letter detailing the nature of the study and the role of the researcher (Polit & Beck 2006: 89). The researcher emphasised the right of all participants to decline participation in the study at any time, without the risk of being discriminated against (Polit & Beck 2006: 89).

1.10.3 Principle of justice

The principle of justice signified the right to fair and equal treatment to all participants of the research (Polit & Beck 2006: 90). This principle entailed the right to fair treatment and the right to privacy.

1.10.3.1 The right to fair treatment

The study participants were selected based on research requirements and the value they would add to the research subject (Polit & Beck 2006: 90). Proposed participants who refused to partake in the study were not treated unfairly (Polit & Beck 2006: 91). The researcher assured the participants that agreements entered into during the study would be honoured and that they would all be treated with respect and consideration (Polit & Beck 2006: 91).

1.10.3.2 The right to privacy

The researcher made all participants aware of their right to privacy through the information letter before the commencement of the focus group. The researcher deemed the disclosure of this right as imperative as the participants were to divulge their personal attitudes, beliefs and opinions regarding reflection (Burns & Grove 2005: 186). During the transcription of data collected, all participants were assigned a random alias. Only the researcher had access to the true identities of the participants. The participants were informed of the fact that their identities would not be disclosed during the publication of study findings.

1.10.4 Informed consent

All participants received a participation leaflet and informed consent document (see Annexure B) stating the nature of the study and expectations; a consent form was attached to the letter. The researcher allowed the participants to read the letter and they were given the opportunity to clarify aspects that were unclear (Burns & Grove 2005: 195). After participants were in agreement with and had completed the confirmation of consent, the informed consent attachment was detached and

handed back to the researcher. These consent forms were kept in a safe place by the researcher.

1.10.5 Confidentiality

In order to protect the participants, the data collected from the focus group discussion was transcribed by the researcher. When a person was addressed by their name, the researcher replaced the name with an alias. The researcher made use of an external independent coder who signed a confidentiality agreement (see Annexure E).

In research, there are moral principles governing the manner in which the research takes place. The study involved human participants and the researcher aimed to protect these participants (Holloway & Wheeler 2002: 47), especially in the focus group process. Careful attention was therefore given to the ethical considerations as described by the Belmont Report quoted by Polit and Beck (2006: 86). The ethical principles of beneficence, respect for human dignity, justice, and confidentiality were applied and were reflected in the focus group process; especially with reference to the completion of a participation leaflet and informed consent document (see Annexure B).

1.11 LAYOUT

The layout for this research is represented in Figure 1.1.

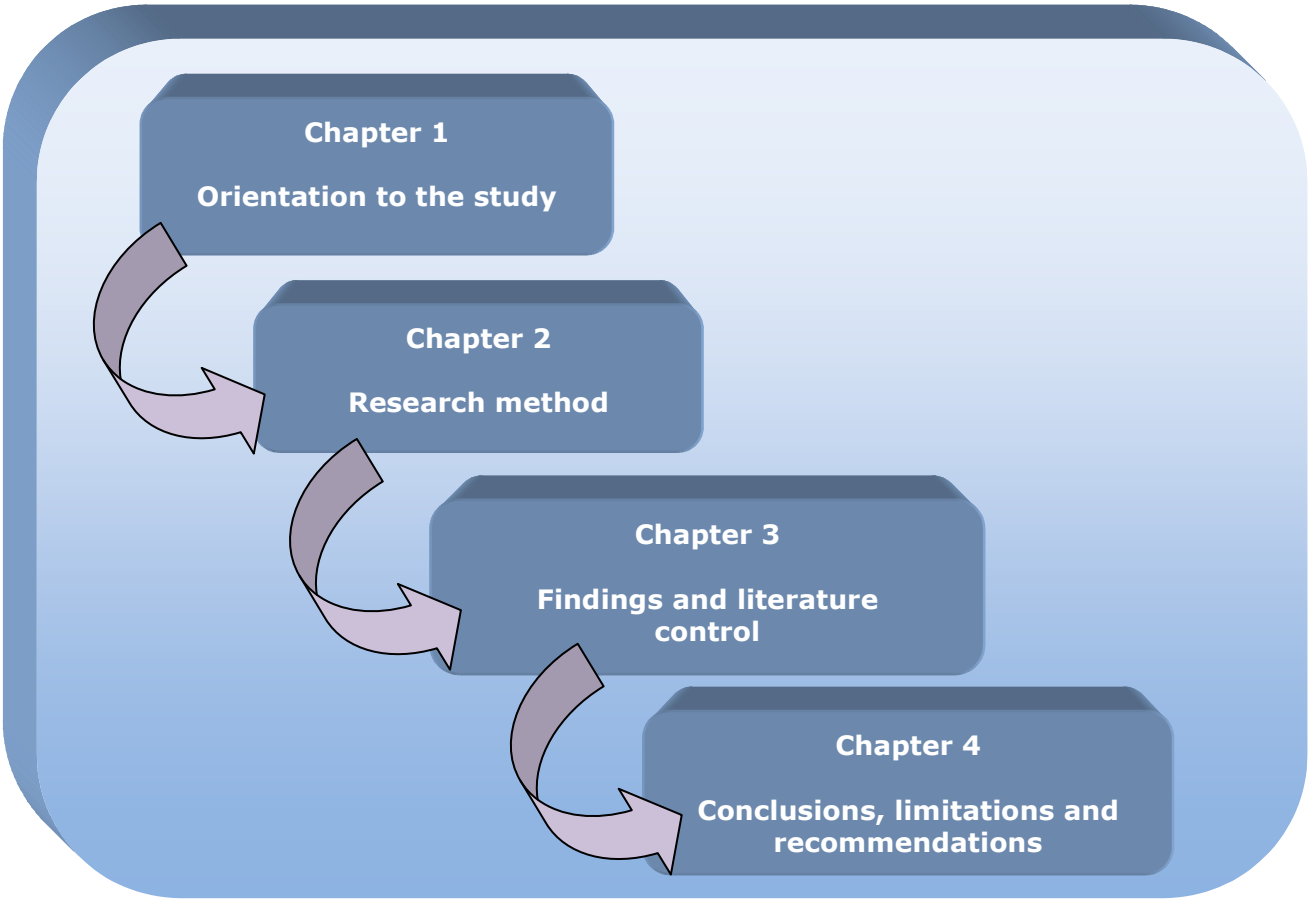

Figure 1.1: Layout of the study

1.12 CONCLUSION

This chapter has provided a brief overview of the study. It has highlighted the background of the study, problem statement and research questions briefly. It has also included an explanation of the research methodology, design and method. The principles that were utilised to ensure adherence to ethical considerations have been discussed. An overview of the significance of the research scope and limitations has been stated, as well as a layout of the study, has been provided. Chapter 2 provides a detailed discussion of the research methodology used in this research.

Chapter 2

Research method

"Through the unknown, we will find the new"

Charles Baudelaire 1821-1867

2.1 INTRODUCTION

In chapter 1, an orientation to the study was provided. Chapter 2 details the research method, which includes the research design and methodology as it was applied in this study in order reach the aim of the study. The research method entails "*the entire strategy for the study*" from beginning to end (Burns & Grove 2005: 211). It refers to the framework of theories and principles on which methods and procedures are based (Holloway & Wheeler 2002: 287) and includes the research design and methodology (Polit & Beck 2004: 731).

2.2 RESEARCH DESIGN

A research design is a "*blueprint*" for conduction of the study and it maximises control over factors that could interfere with validity of the research findings (Burns & Grove 2005: 211). In addition, Polit and Beck (2004: 730) define the design as an *"overall plan for addressing a research problem"*. In this qualitative study, the researcher applied the interpretive approach in order to uncover rich and in-depth information. The research design guides the researcher in planning and implementing the study so that the aim can be reached; it is unique to the study at hand and is used to map out the total plan for the research (Burns & Grove 2005: 211). Babbie and Mouton (2001: 272) state that two steps need to be followed in research design; the researcher must identify what he/she wants to find out, and then determine "*the best way to do it*". This study was qualitative, contextual, explorative and descriptive in nature.

2.2.1 Qualitative design

Burns and Grove (2005: 52) define qualitative design as "*a systematic, subjective approach used to describe life experiences and give them meaning*". This approach was chosen to ensure that the information gathered was the true reflection of the students' views, thus enhancing a student-centered approach; and not reflecting the biased conclusions of the researcher.

The aim of qualitative research is to explore and understand events within the concrete, natural context in which they occur (Babbie & Mouton 2001: 272). The qualitative researcher, as in this study, had to do advanced planning; in total absence of planning, design choices would be constrained and the flexibility to develop an emergent design, limited (Polit & Beck 2004: 246).

2.2.2 Contextual design

The contextual design denotes the environment and the circumstances in which the study took place (Burns & Grove 2005: 732; Holloway & Wheeler 2002: 34). In this research, the context referred to a specific nursing education institution where students enrolled for the emergency nursing programme. The researcher familiarised herself with the emergency nursing programme curriculum to ensure an in-depth understanding it. She also interviewed the programme supervisor to understand the theoretical and clinical aspects of the programme requirements. Each of the students were employed at a hospital and worked in the emergency unit and the critical care unit of that hospital. The emergency unit and critical care unit environments comprised the clinical learning environment of the students. The researcher aimed to explore the clinical learning needs of students within the context of the clinical learning environments they were situated in while enrolled for the emergency nursing programme at a specific nursing education institution.

2.2.3 Explorative design

Explorative designs are designed to increase the knowledge of the field of study (Burns & Grove 2005: 357). The research had to be explorative in nature, as it would assist the researcher in making use of the students who were enrolled for the emergency nursing programme, and had experience regarding the clinical learning environment. This design also ensured that the researcher, as well as the students, would be able to acquire new insights into the full nature of the clinical learning needs of the students.

Exploration of the topic was conducted in order to

- satisfy the researcher's curiosity about clinical learning
- have a better understanding of the students' perceptions regarding their clinical learning needs in the clinical learning environment
- plan and implement a research methodology to reach the aim and objectives of the study (see chapter 1)
- monitor and reflect on the findings of the study (see chapter 3)

The researcher studied the relevant literature relating to clinical learning and the needs of learners so that there would be a clear understanding of what clinical needs are and how they are facilitated and reached. Conceptual definitions (see Section 1.8.5) were formulated so that key concepts were made clear and applicable to the study. To promote a deeper understanding of the physical, clinical learning environment that the students rotated through during the programme and to better understand students' needs, the researcher visited two different hospital emergency and critical care units.

2.2.4 Descriptive design

Descriptive designs are designed to gain more information about characteristics within a particular field of study. Descriptive research studies' main objective is to accurately portray the characteristics of persons, situations or groups (Polit & Beck 2004: 716); the approach may be used for identifying problems with current practice and making judgments (Burns & Grove 2005: 232).

In this study, it was the researcher's aim to explore and describe the clinical learning needs of students during their rotation in the clinical learning environment.

2.3 RESEARCH METHODOLOGY

The research methodology refers to *"the techniques used by researchers to structure a study and to gather and analyze information relevant to the research question"* (Polit & Beck 2004: 15). The qualitative nature of the study and an interpretive viewpoint guided the researcher to focus on the specifics of the conduction of the study.

The research methodology includes a discussion of the research process with specific reference to the population, sample plan, data collection techniques and data analysis. These components will be discussed as they have been applied to the study.

2.3.1 Population

A population is defined as *"a set of individuals having some common characteristics"* (Polit & Beck 2006: 506). The population consisted of all emergency nurse practitioners or all students who were enrolled for any programme in emergency nursing at any educational institution in the country. The target population as defined by Polit and Beck (2010: 306) *"is the entire population in which a researcher is interested"*. It includes the entire aggregation of cases in which the researcher is interested (Polit & Beck 2010: 306). When applied to this study, the target population included all students who had completed, or who were enrolled for, the emergency nursing programme at a specific nursing education institution. Utilising the entire target population would not have been logistically practical for the researcher. Former students were not geographically accessible, some had relocated to other provinces and others had elected to leave the country and work abroad.

The researcher utilised the accessible population. An accessible population, according to Polit and Beck (2010: 307), is composed of individuals from the target population that are accessible to the researcher to be participants in the study. For

the purpose of this study, the accessible population consisted of students who were enrolled for the emergency nursing programme at a specific nursing education institution in 2010 or had completed the emergency nursing programme at a specific nursing education institution in 2008 and 2009.

2.3.2 Inclusion criteria

The researcher had to establish criteria to determine whether individuals qualified as members of the population (Polit & Beck 2010: 306) and these are known as inclusion criteria, which were.

- Students enrolled for the emergency nursing programme of a specific nursing education institution in 2010.
- Students who had completed the emergency nursing programme offered of the specific nursing education institution during November 2008 and November 2009.

2.3.3 Sampling

Sampling is the process of selecting a portion of the population to represent the entire population so that inferences about the population can be made (Polit & Beck 2008: 339). Sampling is taken from the identified target population. Burns and Grove (2008: 339) state that sampling entails the *"selection of groups of people with which to conduct a study"*. The selection of participants from the population ensured that justifiable conclusions could be drawn from the data collected (Saks & Alsop 2007: 157).

The researcher contacted the lecturer of the emergency nursing programme at a specific nursing education institution and informed her of the proposed research. Consensus was reached that the research would be valuable and the lecturer agreed to collaborate with the researcher in obtaining the data. Once ethical approval for the research had been obtained, the researcher again contacted the lecturer, who in turn provided the researcher with the contact details of all the students who fitted the selection criteria. The students were contacted telephonically by the researcher. The aim, objectives and importance of the

research were explained to each participant. If the participant agreed to participate in the study, the researcher made an appointment with them and informed them of the date, time and venue of the focus group.

2.3.3.1 Sample size

There are rigorous instructions on sampling size in qualitative research literature (Newell & Burnard 2006: 60; Polit & Beck 2006: 273). Participants are selected for their expertise and experience (Streubert Speziale & Carpenter 2007: 29). In this qualitative study, the researcher was interested in developing a rich, holistic understanding of the clinical learning needs of students who were enrolled for the emergency nursing programme. This was consistent with the views of Polit and Beck (2010: 306). The sample had to be able to provide rich perceptions on the phenomena under study (Bowling 2007: 380).

There were 33 participants who participated in the study (see Table 2.1 page 50). Participants were randomly divided into two groups. There were eight participants in the first group, six were second year students enrolled for the emergency nursing programme and the other two participants had completed the programme in 2006 and 2009, respectively. The second group consisted of twelve participants, eleven were second year students enrolled for the emergency nursing programme and the other participant had completed the programme in 2009.

2.3.3.2 Non-probability sampling: purposive and consecutive

Non-probability samples are usually used in qualitative research, as was done in this research study. The purpose of this study was never to generalise the results and that meant that non-random sampling could be used (Curtis & Redmond 2007: 33). The method used to select the sample in this research was therefore non-random. Although the researcher was aware of the fact that this type of sampling would be less likely to produce accurate and representative samples (Polit & Beck 2004: 292), the participants were selected from different hospitals in Gauteng to prevent bias and to increase sample representativeness. Purposive and consecutive sampling methods were used.

Purposive sampling involves a "*judgemental*" or "*selective sampling*" which implies the conscious selection of participants (Burns & Grove 2007: 344). The researcher decided to purposely select participants who would be knowledgeable about the topic under study (Polit & Beck 2010: 312). Purposive sampling was used because the researcher's specific aim was to select all the students enrolled for the emergency nursing programme at a specific nursing education institution.

One of the disadvantages of purposive sampling is that it is subjective and provides no external objective method for assessing the "*typicalness"* of the selected participants (Polit & Beck 2010: 312). However, the purpose of this study was not to generalise the results, but to obtain a sample of experts.

The participants were regarded as experts because they had been, or were currently, enrolled for the emergency nursing programme and had experienced it. They were able to provide extensive information about the learning needs of students in the clinical learning environment. This authenticated the rationale to use non-probability sampling and is consistent with the views of Curtis and Redmond (2007: 33) and Polit and Beck (2010: 302).

Polit and Beck (2010: 312) define consecutive sampling as "*recruiting all of the people from an accessible population who meet the eligibility criteria over a specific time interval".* In this study, the researcher aimed to satisfy the inclusion criteria to its extent. The researcher's aim was to ensure the participation of all students who were enrolled for the emergency nursing programme of a specific nursing education institution in 2010, as well as all the students who had completed the programme during November 2008 and November 2009. Consecutive sampling is a better approach than sampling by convenience, because the risk of bias is greatly reduced when all members of an accessible population are invited to participate in a study over a fixed period of time (Polit & Beck 2010: 312).

2.3.4 Data collection

Data collection involves the gathering of information to address the research question (Polit & Beck 2004: 716); steps of the data collection process depend on the research design (Burns & Grove 2005: 430). The researcher selected data collection methods such as the naïve sketch and the focus group; these aided a deeper understanding of the clinical experience of the participants. In addition, field notes were taken during the focus groups.

2.3.4.1 Data collection method

The data collection methods utilised in this study is discussed hereunder. The focus group was comprised of two phases; firstly, the naïve sketch was issued to participants for completion and thereafter, the actual focus group commenced.

The central question addressed was:

- What are the learning needs of students in the clinical learning environment when rotating through the emergency and critical care units?

In order to obtain answers to the central question, four sub-questions were addressed in the naïve sketch and during the focus group:

- What were your learning needs as an emergency nursing student, rotating through the emergency unit during your studies?
- What recommendations can you make which can be utilised to support future students' learning needs whilst working in the emergency unit?
- What were your clinical learning needs as an emergency nurse student, rotating through the critical care unit?
- What recommendations can you make which can be utilised to support future students' learning needs whilst working in the critical care unit?

i) Field notes and naïve sketch

The researcher made use of field notes and naïve sketches for the purpose of data triangulation. According to Polit and Beck (2006: 306), field notes are the descriptive and observational notes made objectively by the researcher of events and conversations in the study. The field notes included observational and personal notes and the researcher planned to use them when analysing data. The focus group facilitator also guided the researcher about her role as the fieldworker and the process of taking field notes. The researcher also prepared for her role as fieldworker by studying guidelines set forth by Kreuger and Casey (2001: 4). Note-taking is important and the researcher had to anticipate that others would use the field notes taken, thus legibility, consistency and clarity were essential (Kreuger & Casey 2001: 5).

Naïve sketches, as a method of data collection, emerged from a phenomenological orientation and means going back to the phenomenon itself (Giorgi 1985: 48). The naïve sketch is a method of data collection similar to open-ended questions. The single most important characteristic of the naïve sketch is that the questions/statements are open-ended and the respondents are asked to complete it in writing (Burns & Grove 1997: 368). In this study, the naïve sketch (see Annexure C), contained the exact questions that would be discussed during the focus group as suggested by Vogel (2003: 43). The questions formulated and posed to the participants were specifically created and phrased according to the guidelines set forth by Lewis (2000: 2), recommending that they be open-ended thus allowing participants to answer *"from a variety of dimensions"* and to elicit valuable responses.

The purpose of the naïve sketch was to let the students become aware of their clinical learning needs and to stimulate their thinking for the exploratory phase (focus group) as described by Vogel (2003: 43). In addition, it allowed the participants to organise their thoughts and clarify any misconceptions and initiated attentiveness to the questions posed in the focus group (Giorgi 1985: 3).

Two focus groups were conducted on the same day as per the appointment made with the participants. The focus group facilitator and the researcher were present

during each group process. The first group's process started at 07:20 and the second group's process started at 09:00. When the participants arrived at the venue for the focus group appointment, the researcher welcomed them and introduced herself and the focus group facilitator. The researcher explained her role as field worker and the participants were informed that the focus group discussion would be recorded (De Vos *et al* 2002: 304). She then explained the research aim and objectives of the study.

The researcher described the sequence of proceedings. Firstly, the naïve sketch would be completed and then the focus group would ensue. The participation leaflet and consent form (see Annexure B) and naïve sketch (see Annexure C) was given to each student by the researcher. The documents were on a clipboard and a pen was provided with which to write. Written consent for the study was obtained from all the participants (Polit & Beck 2006: 93). The participants were made aware of their rights as participants, especially the right to withdraw at any time (Polit & Beck 2006: 89) and that anonymity was ensured.

The naïve sketch contained the exact questions that were later discussed during the focus group process. The four open-ended questions were each written on an A4 piece of paper, one page for each question, with a space below with lines on which the participants could write. The researcher explained the rationale for the naïve sketch and the participants were given 30 minutes to complete the consent form and naïve sketch.

Each participant was given a blank sticker on which they wrote their first name and displayed it on their chests so that the participants would know one another's names and so that the researcher and focus group facilitator could address them by name, if needed. Refreshments were available at the venue and participants were invited to enjoy these while the naïve sketch was completed. The researcher left the participants alone in the venue while they completed the consent form and naïve sketch. The participants were told that if they needed to ask a question or required assistance, that the researcher would be easily accessible in the room adjacent to the venue.

The researcher and the focus group facilitator returned to the venue after 30 minutes and the naïve sketches were handed in and labeled as "Naïve Sketch: Group 1" for the first focus group and "Naïve Sketch: Group 2" for the second focus group. The researcher did not review the naïve sketches immediately; they were reviewed during the data analysis phase of the study.

During each focus group, the researcher took field notes on seating arrangements and non-verbal communication such as nodding in agreement and shaking heads in disagreement, that would likely impact on the analysis of data. After each focus group, the field notes were attached to the relevant focus group naïve sketches and transcribed audio tapes.

ii) The focus group

As stated by Pope and Mays (2006: 21), a focus group is a "*group interview that capitalizes on communication between research participants to generate data*". Focus groups were initially used in marketing research but the method has become popular as a data collection tool for qualitative nursing research (Burns & Grove 2005:542; Hopkins 2007: 528). The purpose of the focus group is to use experts (students) to guide the researcher to generate data regarding the research question and it is regarded as an efficient data collection technique for exploring a topic (Stommel & Willis 2004: 284). Focus groups form a part of the evaluation process. They are essential, especially when a needs assessment is done during or at the end of a programme or some time after a programme has been completed in order to gather perceptions on the outcome of that programme (Lewis 2000: 3).

An advantage of the focus group is that it gives people an opportunity to discuss, formulate and modify their views and make sense of their experiences in peer groups (Somekh & Lewin 2005: 43). Focus groups are not simply a quick and convenient way to collect data from several people simultaneously but are explicitly designed to capitalise on group interaction to provide distinctive types of data (Pope & Mays 2006: 21). The focus group technique is unique in its ability to generate data based on the synergy of interaction of the group. Members should feel comfortable with each other and be able to become engaged in discussion (Rabiee 2004: 656).

The focus groups in this study were "*naturally occurring*" (Kitzinger 1995: 301). The participants were part of a specific group of students enrolled for the emergency nursing programme. The advantage of this was that they could relate to each others' comments and they were comfortable in one another's company. Following Rabiee's (2004: 656) advice, time and effort was spent on selecting members of the group because for some individuals self-disclosure comes naturally, but for others it is not so easy. Co-participants not only help each other overcome shyness, but also provide mutual support in expressing feelings that are common, but which might be considered deviant from mainstream opinions or the assumed opinions of the researcher (Kitzinger 1994: 111).

According to Gibbs (1997: 6), the focus group has the following limitations. Firstly, in comparison with the one-to-one interview, there is less control in a group setting than there is in a one-on-one interview. Secondly, an experienced group facilitator is required that can keep a group focused. Thirdly, data analysis is more difficult because many participants are speaking, and fourthly, assembly of the group produces logistical problems. The researcher was aware of these limitations and as a result of meticulous planning, co-ordination and the selection of an experienced facilitator; the effects of these possible limitations were kept to a minimum.

iii) The focus group process

The focus group relied on the dynamics of the group to facilitate the research participants to communicate and explain their views in ways that do not always occur in one-to-one interviews (Burns & Grove 2005: 542). The data was produced through social interaction where the participants were provided with opportunities to remember forgotten thoughts and feelings and generate spontaneous insights to build on answers of other participants (Holloway & Wheeler 2002: 117; Pope & Mays 2006: 21).

There are guidelines which suggest the size of a focus group. Polit and Beck (2006: 292) state that a focus group should consist of five to ten people. De Vos *et al* (2002: 311) claim that a small group of four to six participants is preferable, specifically when they have a great deal to share. If the group is too big, it can

become disorderly as well as increase the difficulty of data analysis. Pope and Mays (2006: 21) set the size of the focus group between four and eight people.

- **Preparation for the focus group**

The researcher made the initial contact with the potential participants by telephone and gave a short introduction about the aim and objectives of the study. As suggested by Holloway and Wheeler (2002: 114), a follow-up telephone call was made before the scheduled meeting to remind the potential participants of the time, place, purpose and importance of the focus group. The researcher liaised with the venue convener to ensure that the venue was reserved for the purpose of the study.

The researcher had no experience in the conduct of a focus group and therefore recruited an expert independent facilitator who had experience in facilitating and leading focus groups to lead the discussion as advised by Holloway and Wheeler (2002: 115). The focus group facilitator was a specialist in the field of psychiatric nursing with vast experience in focus group management techniques as proposed by Burns and Grove (2005: 544). The researcher provided the focus group facilitator with a copy of the research proposal that had been approved 2 weeks before the scheduled focus groups were to take place. This was to ensure that the focus group facilitator understood the aim and objectives of the study so that the groups would remain focused on the objectives during the focus group. The researcher and the focus group facilitator had a meeting one day prior to the focus group discussion so that there would be clarity and consensus on the focus group process and objectives of the study.

On the morning of the focus group, the researcher ensured that there were clear directions to the venue from the entrance of the building so that participants would not get lost. The venue was an adequately sized room prepared in such a way that the participants sat in a wide circle, enabling them to make eye contact with everybody attending, as recommended by Burns and Grove (2005: 543) and Kitzinger (1995: 301). The equipment that was utilised included two audio recorders placed on a small table in the centre of the circle which were used in

order to ensure that loss of data would be kept to a minimum. Refreshments were also supplied which were placed on a table in the corner of the room.

- **Conducting the focus group**

After the 30 minutes that were allocated for completion the naïve sketch, had expired, the researcher and the focus group facilitator returned to the venue. The researcher reviewed the consent document for each participant to ensure that it had been completed properly, the participants enjoyed refreshments while the documents were checked.

The focus group facilitator set the mood of the group by creating a non-threatening, comfortable, accommodating environment as recommended by Burns and Grove (2005: 542). Structure and guidelines for conducting the focus groups as advised by Kreuger and Casey (2001: 4) were followed by the facilitator; these included a welcome, topic explanation and ground rules. The facilitator commenced the focus group by extending a warm welcome to all of the participants and thanked each one for their willingness to participate. She explained the purpose of the focus group and informed the participants of the expectations. She informed them that there were no right or wrong answers, only different points of view. She asked that all cell phones be switched off and all participants agreed to not interrupt one another while others were speaking.

The focus group facilitator then explained that the discussion was going to commence and explained the role of the researcher as a fieldworker. The role of the fieldworker included taking notes about the seating arrangements, the order in which participants would speak to assist with voice recognition, non-verbal actions such as eye contact, gestures between group members or fidgeting, striking themes and as much of the conversation as possible as suggested by De Vos *et al* (2002: 317-318). Field notes contain specific quotes that illustrate an important point of view (Kreuger & Casey 2001: 14). The fieldworker listened for sentences and phrases that were specifically enlightening and noted these. If new concepts were discovered during the focus group process, she took note of these because they may have been helpful later during data analysis (Kreuger & Casey 2001: 14). By doing most of the background work, the fieldworker's role greatly aids the

transcriptionist greatly and facilitates the checking of transcripts in conjunction with the tapes (Kidd & Parshall 2000: 298). The researcher paid attention to themes that emerged from the participants' experiences in the clinical learning environment.

The focus group facilitator skillfully guided the participants to stay focused and achieve closure on the questions as advised by Polit and Beck (2006: 292) and Burns and Grove (2005: 544). She also prompted some of the participants who were not as assertive as others to share their opinions (Holloway & Wheeler 2002: 115). A summary was given after each question that was discussed to enable participants to verify the outcomes or disagree with them (Holloway & Wheeler 2002: 117).

As suggested by Kreuger and Casey (2001: 12), at the end of the focus group, the facilitator provided a brief verbal summary and enquired whether the participants thought it was adequate. At the closure of the focus group session, the facilitator thanked all participants for their contributions. To enhance credibility of the research, she also informed participants that there might be a possibility that they could be contacted again individually, via telephone or as a group, if any clarity was needed during the data analysis phase of the research study. All participants indicated that they would be open to follow-up.

2.3.5 Data analysis

Data analysis denotes "*exploration of the meaning of data through processes of organisation, reduction and transformation*" (Holloway & Wheeler 2002: 291). The data analysis was conducted in order to arrange the data collected by means of the naïve sketch and focus group in a meaningful way (De Vos *et al* 2002: 339).

Qualitative data analysis involves putting segments of data together to provide meaning (Polit & Beck 2004: 578). During the naïve sketch and focus group, large amounts of data were collected. The central aim of data analysis is to reduce data, which is consistent with the views of Rabiee (2004: 657). Data analysis of qualitative research requires the researcher to do content analysis (Burns & Grove 2005: 554). In addition, Polit and Beck (2004: 714) describe analysis as "*the*

process of organizing and integrating narrative, qualitative information according to emerging themes and concepts."

The data analysis required flexible and creative procedures to ensure that the essence of the data was reflected (Holloway & Wheeler 2002: 235). The entire focus group discussion was recorded and then transcribed verbatim (Pope & Mays 2006: 63) and typed by the researcher. The transcription represents precise details of what "*was said and done*" during the focus group (Pope & Mays 2006: 63). The transcribed data was comprised of the data collected from the naïve sketches, focus group discussion and the field notes. The transcription included laughter and pauses. A large margin was provided on transcripts for coding and categorising of data (Holloway & Wheeler 2002: 116; Taylor-Powell & Renner 2003: 6). Coding of data implies that the data was sorted into themes that emerged from the data during the analysis process (Bowling 2007: 387). Bowling (2007: 387) declares that data should be categorised by the researcher and an independent coder. The researcher and independent coder simultaneously commenced the data analysis process with the aim to become immersed in the data and identify themes and patterns in the data collected, as suggested by Holloway and Wheeler (2002: 238).

Tesch's (1990) method of data analysis was utilised by the researcher and the independent coder to analyse the data (Klopper & Botha, 1996: 18), which comprises the following eight steps:

- **Getting a sense of the whole:** The researcher read through all the naïve sketches carefully and jotted down ideas as they came to mind. The same was done with the focus group transcriptions.
- **Selection of one naïve sketch:** One naïve sketch was randomly selected and the researcher asked questions like "What is this about?" to search for underlying meanings; the researcher wrote these thoughts in the margin. This task was repeated for all the naïve sketches. This principle was applied to the focus groups, but instead of choosing one, both were considered to ensure that meanings were not overlooked.
- **A list of discovered themes** was made, and then similar themes were combined and arranged in columns as major themes and related categories. This was done for all the naïve sketches and the two focus groups.

- **Return to the data**: The researcher took the list of themes and revisited the data (naïve sketches and two focus groups). Abbreviations of the topics (as codes) were made and then written next to the appropriate segments of the text. This was done to see if new codes and categories emerged.
- **Categories** were formed by finding the most descriptive words for the themes. The total categories were reduced by grouping themes that related to one other. Lines were drawn between categories to show interrelationships.
- **An abbreviation** for each category was chosen and these were alphabetised.
- **Data belonging to each category was put together** and a preliminary analysis was performed.
- The researcher then **recoded existing data** as the need arose.

The data was sorted into themes and categories, as recommended by Taylor-Powell and Renner (2003: 1-5) and Tere (2006: 1). Graneheim and Lundman (2004: 106) discuss the confusion surrounding terms used in qualitative research and explain the concept *'meaning unit'* as follows: *"A meaning unit … has been referred to as a content unit or coding unit (Baxter 1991), an idea unit (Kovach, 1991), a textual unit (Krippendorff 1980), a keyword and phrase (Lichstein & Young 1996), a unit of analysis (Downe-Wamboldt, 1992), and a theme (Polit & Hungler 1991)."*

In this study, the term '*theme'* was used to refer to the first level of coding. At this level, an attempt is made to shed light on the specific '*areas of content'* but with little interpretation. Graneheim and Lundman (2004: 106) define '*areas of content'* as follows*: "For level one coding, words, sentences or paragraphs that related to each other through their contents and context were considered"*.

The concept '*cluster'* was used to refer to the second level of coding. Level three coding or axial coding was done to link the themes to the clusters and explain the meanings inherent to the situation (Graneheim & Lundman 2004: 106; Holloway & Wheeler 2002:159). Concerning this study, the third level of coding is referred to as '*categories'*. A category answers the question: 'What?' Clusters and themes within a category share a commonality, and therefore a category can be identified as a thread that runs throughout the codes (Graneheim & Lundman 2004: 107).

The process of coding was followed step by step (see Figure 2.1.). By applying this process to raw data, the data were systemised (Henning, Van Rensburg & Smit 2004: 107). Coding entailed the recognition of repetitive words, phrases, themes, and concepts or the recognition of words, phrases, themes, and concepts with similar meanings. This was done by paraphrasing the participants' words in order to identify themes (first level coding). By incorporating the themes into clusters (second level coding) and categories (third level coding), they were refined (Holloway & Wheeler 2002: 239, 240). By comparing the themes to the whole, surplus themes were eliminated. The themes could then be represented visually. Figure 2.1 illustrates the process of coding.

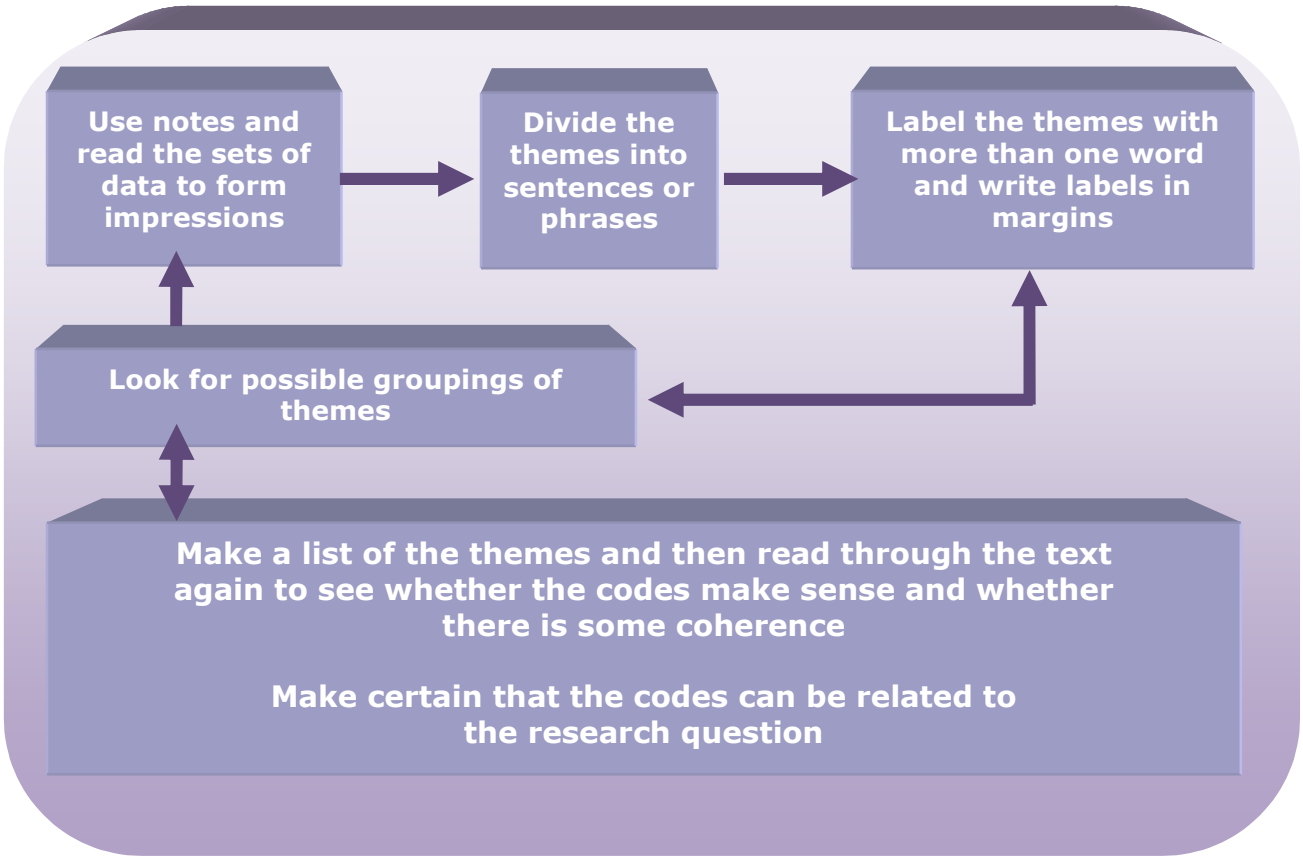

Figure 2.1: Process of coding

(Adopted from Henning *et al* 2004: 104)

The transcribed data was also sent to an who was familiar with the coding of qualitative research. The transcribed data was also sent to an independent coder who was familiar with the coding of qualitative research and used Tesch's method. Once preliminary data analysis was complete the researcher and the independent

coder had a consensus discussion where they discussed and compared the categorisation and agreed on themes and categories (Bowling 2007: 387).

The researcher then discussed the identified theme, categories, clusters and sub-clusters with the supervisors. Once consensus was reached with the researcher's supervisors, the researcher started with the literature control.

2.3.5.1 Overview of participants

Part of the analysis of the focus groups was to summarise participant information and frequency repetition for focus group 1 and focus group 2 (view Table 2.1). A total of 33 participants partook in the study. Seventeen (52%) were students currently enrolled for the emergency nursing programme and 16 (48%) were emergency nurse practitioners who had completed the programme within the last 3 years. Eighteen participants (55%) worked in the public health sector and the other 15 (45%) worked in the private sector. Seven (47%) of the 15 participants from the private sector completed only naïve sketches. These participants were not able to attend the focus group due to logistical reasons, such as working in emergency units that are in other provinces of the country or being on holiday at the time.

Table 2.1: Participant information and frequency repetition

FOCUS GROUP 1						
Participant number	**Enrolled emergency nursing student**	**Emergency nurse practitioner**	**Private sector**	**Public sector**	**Focus group attendance**	**Naïve sketch**
1	√		√		√	√
2	√			√	√	√
3	√		√		√	√
4	√			√	√	√
5	√			√	√	√
6		√		√	√	√
7		√		√	√	√
8	√		√		√	√
FOCUS GROUP 2						
Participant number	**Enrolled emergency nursing student**	**Emergency nurse practitioner**	**Private sector**	**Public sector**	**Focus group attendance**	**Naïve sketch**
9	√		√		√	√
10	√		√		√	√
11	√			√	√	√
12	√		√		√	√
13	√		√		√	√
14	√		√		√	√
15	√			√	√	√
16	√			√	√	√
17	√			√	√	√
18	√			√	√	√
19	√			√	√	√
20		√		√	√	√
NAÏVE SKETCH						
Participant number	**Enrolled emergency nursing student**	**Emergency nurse practitioner**	**Private sector**	**Public sector**	**Focus group attendance**	**Naïve sketch**
21		√	√			√
22		√	√			√
23		√	√			√
24		√	√			√
25		√	√			√
26		√	√			√
27		√	√			√
28		√		√		√
29		√		√		√
30		√		√		√
31		√		√		√
32		√		√		√
33		√		√		√
Total:	**17**	**16**	**15**	**18**	**20**	**33**

2.4 ESTABLISHING TRUSTWORTHINESS

In qualitative research, trustworthiness means methodological soundness and adequacy (Holloway & Wheeler 2002: 254). Qualitative research is trustworthy when it accurately represents the experiences of the study participants. Rather than focusing on reliability, this study focused on trustworthiness (Creswell 1998: 197) and rather than seeking internal and external validity, the focus was on the ***authenticity*** of data.

The authenticity and trustworthiness of the research were enhanced by meeting evaluation criteria, such as confirmability, meaning in context, recurring patterning, saturation, credibility and transferability (Morse 1994: 105-7). In addition, Guba's model of trustworthiness was applied to the qualitative research in order to ensure the trustworthiness (Krefting 1991: 215-217).

Trustworthiness is defined by Polit and Beck (2006: 511) as "*the degree of confidence qualitative researchers have in their data, assessed using the criteria of credibility, transferability, dependability and conformability*". The establishment of trustworthiness is necessary to confirm that the research outcomes are the truth and will enhance the professional practice (Holloway & Wheeler 2002: 250). The model of Lincoln and Guba (1985: 289-311) was implemented to ensure validity and reliability of the study. The model used four constructs, namely credibility, transferability, dependability and conformability (Lincoln & Guba 1985: 301-319; Streubert Speziale & Carpenter 2007: 49).

2.4.1 Credibility

Credibility pertains to the activities to ensure that the study describes the research problem truthfully (De Vos *et al* 2002: 351; Lincoln & Guba 1985: 301). "*Credibility is demonstrated when participants recognise the reported research findings as their own experiences*" (Streubert Speziale & Carpenter 2007: 458). The activities include prolonged engagement, triangulation, referential adequacy, peer debriefing and member checks (Lincoln & Guba 1985: 301-316).

- ***Prolonged engagement***, according to Polit and Beck (2006: 332), *"is the investment of sufficient time in data collection activities to have an in-depth understanding of the culture and views of the group under study and to test for misinformation".* Polit and Beck (2006: 332) continues stating that prolonged engagement will assist in building a trusting relationship between the researcher and participants. In this study, the researcher was actively involved in the emergency unit and was responsible for the clinical facilitation of students at that time.
- ***Triangulation*****:** Polit and Beck (2006: 511) explains triangulation as *"the use of multiple methods to collect and interpret data about a phenomenon so as to converge on an accurate representation of reality".* In this study, data was collected via naïve sketch and a focus group discussion. It was then analysed by the researcher and an independent coder. Hereafter, the data was reported after consensus was reached on the research findings.
- ***Referential adequacy*****:** According to Lincoln and Guba (1985: 313), the raw data collected must be adequate to allow "*later analysis and interpretations*". In this study, the focus group discussion was recorded digitally and transcribed verbatim ensuring that the raw data could undergo further analysis and interpretation. The naïve sketches and field notes for each focus group were also labelled as being relevant to focus group one or two.
- ***Peer debriefing*****:** According to Polit and Beck (2006: 333), it "*is a session held with objective peers to review and explore various aspects of the inquiry*". The researcher made use of expert supervisors in order to gain insight and different points of view. The data collected was analysed by an independent coder who was completely objective towards the study. The independent coder and the researcher had a consensus discussion where their respective findings were discussed and collated.
- ***Member checks*****:** Polit and Beck (2006: 334) states that member checking involves requesting study participants to react on initial findings and understanding of data analysis. Not all study participants were contacted via telephone to comment on the preliminary study findings.

2.4.2 Transferability

Transferability denotes the extent to which findings of the study can be applied to other contexts (Lincoln & Guba 1985: 316). According to Polit and Beck (2006: 336), transferability also refers to the sampling and design of the study. The findings of the study can be applied in other contexts because it addressed the issue of making reflection more practical in the clinical setting. Steps taken to ensure transferability include thick description and purposive sampling (Lincoln & Guba 1985: 316).

- ***Thick description*** refers to a *"rich, thorough description of the research setting, and the transactions and processes observed during the inquiry"* (Polit & Beck 2006: 336). In this study, the researcher aimed to present a thick description of the setting, participants involved in the study, method of data collection and methodology. A comprehensive transcription of data was also available. Field notes, that were taken, also assisted with the analysis of the data.
- ***Purposive sampling*****:** According to Polit and Beck (2006: 507), this entails *"a non-probability sampling method in which the researcher selects participants based on personal judgment about who will be most informative".* Purposive sampling, an example of non-probability sampling, was utilised to ensure that the participants were able to provide rich, valuable data.

2.4.3 Dependability

Dependability implies that the study findings are truthful and reliable (Holloway & Wheeler 2002: 255). According to Lincoln and Guba (1985: 316) and Streubert Speziale and Carpenter (2007: 49), demonstrating credibility is sufficient to also exhibit dependability. The researcher provides evidence on how the conclusions are reached and these will guide other researchers who are embarking on an analogous study (Holloway & Wheeler 2002: 255). To ensure dependability, the researcher implemented the following: dependability audit, dense description, triangulation, peer examination and code-recode procedure (Lincoln & Guba 1985: 316-318).

- ***Dependability audit*:** Entails the assessment of truthfulness of study results (Holloway & Wheeler 2002: 255). Personal logs and field notes were kept to ensure that decision-making processes could be evaluated. The service of an independent coder was used to ensure that data analysis results were objective and accurate.
- ***Dense description of research method*:** The researcher provided a comprehensive description (Polit & Beck 2006: 44) of the research methodology to ensure that, should other researchers undertake a similar study, the research methodology can be refined or used in the same way.
- ***Peer examination*:** As suggested by Lincoln and Guba (1985: 318), the researcher made use of expert supervisors to reinforce dependability of the study.
- ***Code-recode procedure*:** Polit and Beck (2006: 401) advised that the data is coded by an independent coder and the researcher. The results were discussed by the mentioned parties. After the discussion and review of the results, it was discussed with the expert supervisors and consensus was reached.

2.4.4 Confirmability

Confirmability refers to the objectivity of the data (Polit & Beck 2002: 336). To ensure confirmability the researcher made use of an independent coder and expert supervisors (De Vos *et al* 2002: 352). Bracketing further enhanced confirmability. Bracketing *"is the cognitive process of putting aside one's own beliefs, not making judgements about what one has observed or heard and remaining open to data as they are revealed"* (Streubert Speziale & Carpenter 2007: 27). The process of bracketing is important, if the researcher is to share the study participants' views of the studied phenomena (Streubert Speziale & Carpenter 2007: 28). Bracketing was an ongoing process and the researcher was attentive not to allow predetermined ideas to direct the study.

Table 2.2: Summary of the strategies utilised to ensure the trustworthiness of the study

STRATEGY	ACTIONS	REALISATION IN THE STUDY
Credibility	Prolonged engagement	Researcher's profile: • Researcher was involved in emergency nursing practice • Researcher was involved in clinical accompaniment, and personal and professional development of emergency nurses • Researcher had worked in multiple positions in the emergency environment: pre-hospital, critical care, unit management • Open-ended questions for naïve sketches
	Triangulation	• Open-ended questions for naïve sketches • Literature control/review • Focus group process • Using an independent coder • Tesch's method of data analysis • Using experts to validate data
	Referential adequacy	• Audio tape recording of focus group • Researcher as field worker • Verbatim transcription of focus group data
	Peer debriefing	• Independent coder • Expert study supervisors
	Member checks	• Preliminary data obtained validated by focus group participants
	Thick transcription	• Provide comprehensive description of data collection processes • Provide research methodology
Transferability	Purposive sampling	• Intentionally selecting participants
	Consecutive sampling	• Intentionally selecting *all members* of the accessible population
	Dependability audit	• Keep personal logs and field notes • Use an independent coder
Dependability	Dense description	• Describe research methodology comprehensively
	Triangulation	• Compare independent coder's data analysis with researcher's version to identify commonalities • Using two sources of data, the naïve sketch and the focus group • Tesch's method of data analysis • Independent coder • Literature control
	Peer examination	• Review by expert supervisors • Use of an independent coder
	Code-recode procedure	• A consensus discussion between coder, researcher and supervisors
	Peer examination	• Using independent coder • Using expert supervisors
Confirmability	Bracketing	• Set aside own beliefs and remain open to revealed data
	Confirmability audit	• Consensus discussion between researcher and independent coder

Source: (Lincoln and Guba: 1985)

2.5 CONCLUSION

This chapter provided an in-depth description of the research methodology for the study. Chapter 3 contains the findings and literature control.

Chapter 3

Data analysis, findings and literature control

Hear one, I forget,
See one, I remember
Do one, I understand

Chinese Proverb

3.1 INTRODUCTION

In chapter 2, the research method, including the research design and methodology, were explained in depth. The emergency unit is an area where specially trained emergency nurse practitioners work. Chapter 3 focuses on the report of the research findings and discusses the related literature to each of the findings. The research findings relate to the experiences and recommendations regarding the clinical learning environment of students who rotate through the emergency and critical care units as part of the emergency nursing programme.

The emergency unit is where the majority of the students' clinical learning takes place. In this clinical learning environment, the students must utilise the learning opportunities to which they are exposed, while actually managing ill and injured patients. The emergency unit, also referred to as the front door of a hospital, is the first port of call for most patients. This is where initial assessment, diagnosis and management of a broad spectrum of illnesses or injuries starts. The patient turnover is rapid and this requires quick and accurate judgement so that priorities for management can be identified for management of the patient (Wolf 2005: 298). Patient management focuses on the assessment and management of life-

threatening situations. Patients require constant re-evaluation and emergency nurse practitioners need to be adaptable to priorities that shift constantly.

The next patient care environment in a critically ill or injured patient's journey is the critical care unit. In the critical care unit the patient management that commenced in the emergency unit is now broadened and deepened. The management of critically ill and injured patients who are admitted to the critical care unit is characterised by planning and treatment that is in line with critical long- and short-term therapeutic goals.

3.2 OVERVIEW OF PARTICIPANTS

A total of 33 participants partook in the study. Seventeen (52%) were students currently enrolled for the emergency nursing programme and 16 (48%) were emergency nurse practitioners who had completed the programme within the last three years. Eighteen participants (55%) worked in the public health sector and the other 15 (45%) worked in the private sector. Seven (47%) of the 15 participants from the private sector completed only naïve sketches. Participant information and frequency repetition is summarised in Table 2.1 (see page 50).

3.3 RESEARCH FINDINGS

The objectives of this study were to:

- explore the clinical learning needs of students rotating through the emergency unit
- explore the clinical learning needs of students rotating through the critical care unit
- propose recommendations towards programme refinement pertaining to the clinical component of the emergency nursing programme

The clinical learning environment of the students comprises the emergency unit and the critical care unit where they work during the emergency nursing programme. The objectives were used to guide the researcher constantly through each phase of

the research. Each of the questions posed as part of the focus group and naïve sketch were specific to either the emergency or critical care units. However, upon analysis of the data, it was clear that when participants provided insights into their clinical learning needs, that they followed the structure of the naïve sketch, but not of the focus group. When commentary was specifically aimed at the emergency unit or critical care unit, the participants indicated this. The researcher thus colour-coded (see Table 3.1) the applicability of the research findings and recommendations to indicate whether they were:

- Applicable to the emergency unit only
- Applicable to the critical care unit only
- Comprehensive (applicable to the emergency and critical units)

Table 3:1: Colour coding system

Colour coding	
Emergency unit	
Critical care unit	
Comprehensive	

The research findings were based on the data collected during the two focus groups and the naïve sketches completed by the participants. One broad central theme emerged, namely, learning support (view Table 3.2).

3.3.1 Learning support

Students in an emergency nursing programme desire to acquire clinical skills within a supportive emergency and critical care learning environment, as is evident by the description of their needs and recommendations. These are clearly embedded in a current reality that the learning environment is not supportive to their learning needs.

The central theme was confirmed by the participants' reflections:

- ⇨ "… more support, I think more support for the students …"
- ⇨ "… we feel more confident when we do have that [support] ..."
- ⇨ "… you have got the stress of working, you have got the stress of studying … and that is a lot to handle …"
- ⇨ "… it is difficult these two years … both physically, mentally, personally … everything … you get drained, you don't get enough time for simple things …"
- ⇨ "… you feel lost …"
- ⇨ "… you doubt your abilities because you are working with a whole different type of patient than what you were used to …"

Literature control: Teaching, learning and assessing are crucial aspects within the clinical learning environment; they generate the evolution of knowledge and skill, ensuring the development of competent practitioners (Lambert & Glacken 2005: 664). The clinical learning environment is where the students find themselves whilst enrolled for the emergency nursing programme. The clinical learning environment is one that comprises many facets and role players; this includes staff, equipment, patients, the clinical facilitator, the nurse educator and the clinical setting (Papp *et al* 2003: 263). These role players are there to make the students' clinical learning journey as smooth as possible. This is important because one of the most anxiety-producing components of a nursing programme, identified by nursing students, is clinical experience (Sharif & Masoumi 2005: 1).

The clinical learning environment is one where all types of nursing students find themselves, from the assistant nurse trainees to the registered nurses specialising in specific fields of nursing, such as emergency nursing. It can be surmised that in many instances the presence of different types of student overlaps and all find themselves in the same clinical learning environment, even though they may not be aware of this. Education and training is regarded as important in the public sector hospital and students from other fields, such as physiotherapy, radiography and medical students work in this environment in order to learn.

In a study conducted in the United Kingdom by Bradbury-Jones, Irvine and Sambrook (2010: 346, 347) regarding empowerment of nursing students in clinical practice, having knowledge and confidence; being valued as a learner, a team member and a person; good mentorship and clinical placements as well as a positive ward culture were some of the factors that were essential to their sense of empowerment. A suitable learning environment is thus not only a desire of the student enrolled for the emergency nursing programme but all nursing students need to have an environment that is conducive to learning, in other words one that empowers them.

Similarly, in this study, factors such mentoring, being a member of the team, the unit where the student works and the nature of the ward (working relationships and exposure) were also identified by participants as having a collective impact on their clinical learning experiences (see Sections 3.3.1.5.2, 3.3.1.6.2 and 3.3.1.7.2).

As with life, the clinical learning environment has positive and negative influences on the people within it. The development of a supportive learning climate is a critical element and this can be done by improving the educational quality of the environment (Chan 2002a: 74). The clinical learning environment is where experiential learning occurs and it is an entity with multiple dimensions and a complex social context (Chan 2002a: 69). Clinical learning is important, yet clinical education has been problematic, and the question is asked as to why some clinical experiences are better than others (Chan 2002a: 69). During Chan's project on developing a Clinical Learning Environment Inventory (CLEI), it was highlighted that certain aspects affect the quality of student nurses' learning. These include the quality of students' preparation, characteristics of the instructor and ward staff, peer support, and the variety of clinical opportunities to which students are exposed (Chan 2002a: 69).

The CLEI is comprised of 6 scales used to assess the clinical learning environment, namely individualisation, innovation, satisfaction, involvement, personalisation and task orientation (Chan 2002a: 74).

- **Individualisation**

Individualisation refers to the extent to which students are treated differently according to their ability and are allowed to make their own decisions (Chan 2002a: 74). Students should be able to have some control over their clinical experience and facilitate achieving their individual learning needs. This includes them being allowed to learn and work at their own pace and play a part in determining how their working shift is spent (Newton, Jolly, Ockerby & Cross 2010: 1375, 1376).

- **Innovation**

Innovation refers to the effectiveness of the clinical teachers' planning of new and productive clinical experiences, learning activities and teaching techniques (Chan 2002a: 74). Theory-guided, evidence-based practice is the hallmark of any professional discipline (Smith & Liehr 2008:1). The clinical teacher should teach new and relevant techniques that will keep students intrigued. Students see innovation as a task of educators in the clinical environment and rely on these individuals to think of interesting activities for them (Newton *et al* 2010: 1376) because they don't want to do the same mundane tasks on every shift.

- **Satisfaction**

Satisfaction indicates the extent to which the students enjoy clinical placement (Chan 2002a: 74). In a study by Newton *et al* (2010: 1376), part of their analysis of satisfaction involved asking students to comment on whether they found clinical placement boring, interesting or a waste of time; and if they felt satisfied after working a shift. Students need to feel satisfied after they have worked in the clinical learning environment. Personal factors and institutional factors affect student retention and satisfaction (Walker 2008: [Sa]). Personal factors can mean the influences of life experiences and social factors unrelated to the emergency nursing programme. Institutional factors can be learning styles and rules of the specific nursing education institution and the specific clinical learning environment in which students work.

- **Involvement**

Involvement refers to the extent to which students have participated actively in hospital ward activities (Chan 2002a: 74). This includes whether ward staff in the ward have allowed them to be involved in ward activities and asked them for their opinions regarding approaches to patient care (Newton *et al* 2010: 1376). Students are not spectators in the clinical learning environment; they are there to play an active part in patient care and, subsequently, acquire new insights and skills that are relevant to emergency nursing science.

- **Personalisation**

Personalisation has its emphasis on the opportunities for the individual students to interact with the clinical teacher, as well as the concern for the students' personal wellbeing (Chan 2002a: 74). The need to personalise learning has been documented in research where students did not like a "*one size fits all*" approach to teaching; all students are not the same (Kneafsey 2007: 368). The need to personalise relates to the students being adult learners, who are unique, and have specific individual clinical learning needs.

- **Task orientation**

Task orientation reflects the extent to which activities at ward level are clear and well-organised (Chan 2002a: 74). The way in which students are supported and presented with opportunities to learn affects their professional development (Brammer 2008: 1869). Clinical learning activities need to be as organised as possible even though the clinical learning environment constantly changes according to the needs of patients who are in need of care. When Registered Nurses (RN's) actively promoted and supported student learning, students gained confidence (Brammer 2008: 1874). Students need to be incorporated into ward activities and staff members' attitudes toward students and their needs in the workplace are factors that influence their clinical learning needs.

Learning support in the clinical area is a factor that has been researched in nursi education in mostly pre-graduate and newly-graduated nurses. In a study on the experiences of learning in clinical practice of pre-graduate nursing students from two nursing colleges in Sweden in 2000, these students described certain shortcomings relating to clinical practice – "*lack in the student-supervisor* [clinical facilitator] *relationship", "insufficient supervision", "lack of feedback and opportunities to reflect", "supervision* [clinical facilitation] *lacks continuity", "lack of opportunities to practice"* (Löfmark & Wikblad 2001: 46, 47). These descriptions relate to categories of this study, such as, the need for improved clinical accompaniment, and exposure to learning opportunities in the clinical setting (see Sections 3.3.1.3 and 3.3.1.5). A need for more support from ward staff is another factor that has been reported in research relating to support for students in the clinical learning environment (O'Haja 2010: 14.5). Although the factors mentioned have related mostly to clinical facilitation, support and exposure, the message is there that the clinical learning environment has its obstacles that affect nursing students, regardless of whether they are pre-graduate or post-basic.

From the central theme, categories, clusters and sub-clusters were delineated based on the study findings (view Table 3.2). These further describe the clinical learning needs of the students and the recommendations to enhance clinical learning in the emergency and critical care units

Table 3.2: Summary of identified themes, categories, clusters and sub-clusters

THEME	CATEGORY	CLUSTER	SUB-CLUSTER
Learning Support	Private versus public sector (3.3.1.1)	Degree of exposure (3.3.1.1.1)	
		Business efficiency (3.3.1.1.2)	a Cost b Medico-legal aspects
		Clinical facilitation (3.3.1.1.3)	
	Student status (3.3.1.2)		
	Exposure to learning opportunities (3.3.1.3)	Exposure to specific procedures (3.3.1.3.1)	
		Exposure in private versus public health sector (3.3.1.3.2)	
		Value of exposure to a critical care (3.3.1.3.3)	
	Theory-practice integration (3.3.1.4)		
	Clinical accompaniment (3.3.1.5)	The clinical facilitator (3.3.1.5.1)	
		The mentor (3.3.1.5.2)	a The emergency nurse practitioner as mentor b The second year student as mentor
	Management "buy-in" (3.3.1.6)	Recognition and support (3.3.1.6.1)	
		Unit manager support and orientation (3.3.1.6.2)	
	Working relationships (3.3.1.7)	"Them-us" dichotomy (3.3.1.7.1)	
		Improved interpersonal relationships (3.3.1.7.2)	
		Collaboration(3.3.1.7.3)	

The seven categories that were identified included:

- private versus public health sector
- student status
- exposure to learning opportunities
- theory-practice integration
- clinical accompaniment
- management "buy-in"
- working relationships

Each of these categories, clusters and sub-clusters will be discussed in detail (view Sections 3.3.1.1 to 3.3.1.7).

3.3.1.1 Private versus public health sector

During data analysis, it became evident that there were differences between the clinical learning environments in the private and public sectors of health care.

A participant reflected:

⇨ "... it is a need in your area [private sector], but in public hospitals [public sector] I must say…we definitely get a lot of opportunity to learn …"

⇨ "… exposure is more of a problem for the private hospital [sector] students …"

Literature control: The health care sector in South Africa consists of the private health sector and the public health sector. The private sector health care provides for middle and higher income users; this only constitutes 18% of the population (Health Care in South Africa 2008: [Sa]). The remaining 82% of the population is serviced by the public health sector which forms a major part of the population.

The segregation of health care into private and public health sectors is not unique to South Africa, but prevalent worldwide in countries such as China, Japan, UK and USA (Germishuizen 2009: 11, 12, 13, 14). Internationally, the public health sector

is understood as simply the Ministry of Health and its state-owned or state-funded health services, and the private sector refers to "*For-profit*" health services which operate as profit businesses (Balabanova, Oliveira-Cruz & Hanson 2008: 5). In Spain, the health care sector (private *and* public sector) and nursing education is being affected by the global economic crisis due to budget constraints (Zabalegui & Cabrera 2010: 509). It is seen as a possibility that fewer students will have access to university nursing studies due to the cost of education and the number of available scholarships provided (Zabalegui & Cabrera 2010: 507). This shows that regardless of the sector of health care, budgets and funding can also influence nursing education. This is discussed under the cluster "business efficiency" (Section 3.3.1.1.2).

The clinical learning environment, whether in the private or public sector, that is utilised for the student should be one in which learning is optimised. Literature indicates that "*there is a need for clinical placements that are effective in guiding, assisting and progressing the learning of the students*" (Henderson, Heel & Twentyman 2007: 92).

The category of private versus public health sector is discussed in the three clusters identified in the study:

- Degree of exposure
- Business efficiency
- Clinical facilitation

The three clusters identified are discussed in sections 3.3.1.1.1 to 3.3.1.1.3.

3.3.1.1.1 Degree of exposure

The study participants reported a difference between the degree of exposure in a private hospital and public hospital setting. The students agreed that they had greater exposure to various pathologies and disease processes in the public hospital.

The tertiary public hospital's emergency unit, in which the public sector participants worked, was not zoned to treat minor ailments. The spectrum of ill or injured patients was narrowed to include the more seriously ill or injured. This is in contrast to the private sector setting, where any patient, whether they have minor or major illnesses or injuries, are admitted and managed via the emergency unit. Based on acuity of patients and patient numbers, this translates to learning opportunities being more frequent in a public hospital. Participants who worked in the public hospitals even suggested that those from private hospitals should work shifts in the tertiary public hospital where they were working.

Supportive reflections by the participants relating to "degree of exposure" were:

- ⇨ "… we [private sector students] do not get the opportunities to do certain procedures because we do not see much trauma patients and that is a problem …"
- ⇨ "… I think all private students should go to government [public sector] …"
- ⇨ "… we definitely get the opportunity to learn, so that's maybe just a need in private [sector] …"

Literature control: The size of hospital greatly determines the educational resources available and impacts on the learning opportunities (Leon & Morris 2008: 54); another factor is the classification of the hospital. The hospital, in which public sector students, worked at is a Level III public hospital. Based on the classification of health establishments in the National Health Act, Act No. 61 of 2003 (Department of Health 2003: 10), it was decided on the following preliminary definition of a Level III public hospital, namely, that such a hospital includes a facility that provides in-patient services, as well as specialist and sub-specialist care within the public sector. The emergency unit is a 40-bed division which includes seven resuscitation beds – six beds for adult patients and one paediatric resuscitation bed. As a result of the shortage of beds available for critical care and high care patients in the hospital, two additional beds for critical care patients and four for high care patients are provided in the emergency unit of the hospital (Van Eeden 2010). The hospital has 832 beds in total of which ninety-two are critical

care beds, forty-four are intended for adult critical care patients and 12 beds for high care adult patients. There are 29 neonatal critical care beds and seven paediatric critical care beds available in the hospital (The Hospital 2010; Van Eeden 2007).

The students employed in private sector hospitals were not employed in one hospital; they were spread across more than 5 different hospitals. The private sector hospitals have less than half of the total bed capacity when compared to the public sector hospital. On average, the emergency units of the private sector hospitals have 12 beds of which 4 are resuscitation beds and there are no additional beds for critical care or high care patients (Grobler 2009). The public sector hospitals have greater capacity to see patients and their high level of specialist and sub-specialist capabilities ensure that non-urgent cases are not dealt with at the hospital. The private sector hospitals, where students are situated, are accredited by a specific nursing education institution according to hospital size, specialist and sub-specialist capabilities (Heyns 2010); this is to ensure that exposure to clinical learning opportunities in the clinical learning environment will occur.

It is clear that the most elementary educational resource in the clinical learning environment is the degree of exposure, which is related to size of the hospital and the classification that determines severity of cases seen.

The degree of exposure is related to "Business efficiency" (see Section 3.3.1.1.2). Placing the students from the private sector in the public sector to enhance their degree of exposure increases the costs to the private sector hospital (Dance 2010). The estimated cost of placing a private sector student in a public sector hospital for one month is R 29 000. The students' basic salary will still be paid by the private hospital and, while the student is working in the public hospital, another staff member has to be paid to work in the place of that student (Dance 2010).

Recommendations relating to "degree of exposure":

- Private health sector students must be permitted to work a portion of time in a public health sector emergency unit during the emergency nursing programme.

3.3.1.1.2 Business efficiency

A business is "*a commercial or industrial enterprise*" and business is further described as "*the acitivity of providing services involving financial aspects*" (*Wordweb Dictionary* 2009: [Sa]). Efficiency is defined as "*the ratio of the output to the input of any system*" (*Wordweb Dictionary* 2009: [Sa]). Thus, in the context of this study, business efficiency is the term used to describe the provision of cost-effective quality health care to a patient while simultaneously and responsibly limiting the operational costs of such care. Operational costs include the nursing staff workforce that provides nursing care in the clinical learning environment. Students are counted as workforce and subsequently, form part of the operational budget.

Participants remarked that certain procedures, especially endotracheal intubation and wound suturing, that are required for the emergency nursing programme could not be done in the private sector due to financial reasons emanating from the emergency doctors working in the clinical learning environment, as wells as the private hospitals' financial reasons. The business efficiency cluster is discussed in two sub-clusters, namely:

- Cost
- Medico-legal aspects

a Cost

Students stated that their opportunities to do procedures in the clinical learning environment were minimised in the private sector because patients in this sector

pay for their health care and doctors in the emergency care facilities charge patients money for services rendered.

Supportive reflections by the participants relating to "cost" were:

- ⇨ "…our doctor [emergency doctor]…she says you are not allowed to charge [money] a patient if it [procedure] is done by a student, so if we put in stitches they cannot charge [money] the patient…"…, "…it is a private sector problem…"
- ⇨ "…they don't want to give you the opportunities because privates patient pay…"

Literature control: In the private sector in South Africa, emergency units are operated by emergency doctors and function as an independent private practice. The private practice operates as a business where the emergency doctors' consultations and procedures that they execute are invoiced and paid by the patients' medical insurance or directly by the patient. An emergency doctor may only charge a patient for procedures that they perform directly on a patient. If they permit a student to do procedures, this poses a financial loss for the private practice. This is why some students in the private sector do not always have opportunities to perform procedures in the clinical learning environment and their clinical learning is adversely affected by this.

Emergency health settings have been affected adversely by economic crises and staff shortages (Emergency Nurses Association 2007b: 3). Leon and Morris (2008: 57) report that a key aspect to the success of education is funding. Funding, means financial support for nursing education programmes, of which the emergency nursing programme is one. Private sector hospitals, that have students enrolled for this programme, should show commitment by supporting the students' need for exposure, even if it will affect the efficient operation of their business.

The public sector is on the other end of the continuum. The emergency unit in the pubic sector is not operated in a business-like fashion and, as a result, there are no negative financial implications for emergency doctors when students perform procedures.

Recommendation relating to "cost":

- Students should be allowed to perform skills required as prescribed by the emergency nursing programme, regardless of cost implications.
- Private health sector senior hospital management should support exposure to clinical learning environments that optimise clinical learning.

b Medico-legal aspects

Medico-legal is defined as "*of or pertaining to law as affected by medical fact*" (*The Free Dictionary* 2010: [Sa]). Medico-legal is a term used to describe medical issues in health care that can lead to litigation against any member/s of the multi-disciplinary health team, if there is any alleged misconduct or mismanagement of a patient.

Students reported that some private sector hospitals did not permit them to perform certain procedures; they specifically mentioned endotracheal intubation. This is due to the medico-legal risks, if a patient's health is affected adversely. The private sector hospital can suffer financial loss, if litigation instituted by a patient against a private hospital is successful and the judgement issued involves paying large sums of money for compensation.

Supportive reflections by the participants relating to "medico-legal" were:

⇨ "… there are a lot of procedures that need to be done and completed, the private hospitals don't always allow it, especially in my hospital …"

⇨ "… you are not allowed to intubate [endotracheal intubation] in private hospitals"

⇨ "… medico-legal risk …"

⇨ "… say the patient sues the hospital …"

⇨ "… privates patient pay, so if you want to intubate them and then there is a court case ... there is more implications …"

Literature control: The SANC has not created a scope of practice specifically for the emergency nurse practitioner. Heyns (2003: 243) identifies core competencies of emergency nurse practitioners in life-threatening situations in South Africa and orotracheal intubation is noted as a competency within the context of South Africa.

A registered nurse is responsible for the diagnosis of a health need and the prescribing, provision and execution of a nursing regimen to meet the need of a patient, as well as the supervision over and maintenance of a supply of oxygen to the patient (SANC 1984, Regulation 2598: 2[a, h]). The SANC may also take disciplinary steps against a registered nurse who wilfully or negligently omits to maintain or carry out acts in respect of treatment of the very ill or high risk patient (SANC 1985, Regulation 387: 3[g]). These SANC regulations can be applied to the emergency nurse practitioner in a life-threatening situation, where an advanced skill such as endotracheal intubation forms part of care rendered to meet the emergent need of a critically ill or injured patient. It is thus important that an emergency nurse practitioner is competent to perform this life-saving skill and the only way to do so is by being allowed to practise this skill in the clinical learning environment while enrolled for the emergency nursing programme. In private sector hospitals, the emergency nurse practitioner is permitted to perform advanced skills, for example, orotracheal intubation, in a life-threatening situation, but only under extreme circumstances such as a disaster situation with mass casualties or where a medical doctor is not available and where a delay in treatment will result in permanent death or disability to the patient.

The identification of core competencies and a legal scope of practice for emergency nurse practitioners is not only a short-coming in South Africa. In Thailand, there is also no scope and no competencies described either, and recent research in that country has been directed at identifying core competencies, with a view to enable specialised care and higher education for this nursing speciality (Unhatsa, Robinson & Magilvy 2010: 3).

"… Private health bodies …" are *"… vicariously liable for the intentional or negligent wrongful acts or omissions of their …"* …*"… clinical staff during their course or scope of employment …"* (Mc Quoid-Mason 2010: 574). Certain procedures, such as

endotracheal intubation, that students have to be able to do, are invasive. If the student performs a procedure on a patient and that patient is compromised or perceives to have been compromised, then there can be legal repercussions; for a private hospital business this means the possibility of financial loss. Some private sector hospitals are not prepared to allow students to do certain procedures because they might see it as putting the hospital and staff at risk for litigation.

It can thus be postulated that it is the concept of "business efficiency" that is one of the factors that affects the clinical learning environment of students and their needs within it.

Recommendations relating to "medico-legal aspects":
Private sector students should be permitted to perform advanced skills needed for life-threatening situations under direct supervision in the private sector.

3.3.1.1.3 Clinical facilitation

One student stated that there were fewer emergency nurse practitioners in the emergency units in the private sector than in the public sector. The students agreed that this influenced the expert assistance they received in the emergency unit while they were working in that clinical learning environment.

The students working in the private sector were of the opinion that they had less access to clinical facilitation. The participants stated that there was not a dedicated clinical facilitator in the emergency unit on a daily basis with whom they could consult with.

The clinical facilitators in the private sector were also responsible for the clinical facilitation of other students, such as students enrolled for the four-year comprehensive nursing programme and students enrolled for the critical care and

operating theatre programmes. This had a negative impact on the time that the clinical facilitator had available to spend with the students.

Supportive reflections by the participants relating to "clinical facilitation" were:

- ⇨ "… it is also a problem in the private hospital…I think it's probably even a bigger problem in private hospitals…there's less people [emergency nurse practitioners] …"
- ⇨ "… what also happens in private [sector] is that we like have one facilitator that is allocated to the unit and say there is 10 students and it is ONLY her that is going to help …"… "… so you only have that one person that needs to support you, that needs to guide you, to teach you and to do everything to everyone and they just don't get to everything …"
- ⇨ "… I am at a learning centre and visit students in various hospitals. If we could have a specialist facilitator [clinical facilitator] for our emergency units and ICU's [critical care units] in each hospital, I trust that it would help students more…"
- ⇨ "… more clinical facilitation in private sector …"

Literature control: The migration of medical professionals is a source of major concern for developing countries and it worsens already depleted health care resources (Pang, Lansang & Haines 2002: 499). The migration of nurses occurs in South Africa and this also impacts on the prevalence of specialised nurses, such as emergency nurse practitioners, in the public and private sector emergency units.

Hospitals are staffed according to their size and patient volumes that they see, emergency units are also staffed accordingly. It can be surmised that there could be fewer emergency nurse practitioners in the private sector because fewer staff are needed on each shift due to lower patient numbers. In order for a hospital to be accredited as a clinical environment for students enrolled for the emergency nursing programme, the specific nursing education institution requires that there must be at least one emergency nurse practitioner on duty at any given time (Heyns 2008).

The need for clinical facilitation and the importance of colleagues in the workplace who are emergency nurse practitioners is discussed in the clusters referred to as "the clinical facilitator" and "the mentor" in sections 3.3.1.5.1 and 3.3.1.5.2 respectively.

Recommendations relating to "clinical facilitation":

- There should be an adequate number of clinical facilitators in a private sector hospital.
- There should be clinical facilitators in a private sector hospital, specifically for the students enrolled for the emergency nursing programme.

3.3.1.2 Student status

Students desire to have student status. The participants reflected that they do not want to be seen as part of the workforce. The finding "student status" carried significant weight because it was agreed upon by all participants of both the focus groups.

In the emergency unit, it is expected of the students to work a 42-hour working week divided over a period of 7 days. The lecture day, consisting of one 8-hour day, is subtracted from the 42 hours, leaving them with 34 hours in the clinical learning environment per week. The shifts that the students work are 12 hours shifts. The working week consists of day shifts (07:00-19:00) and/or night shifts (19:00-07:00). The students are allowed to work only four night shifts per month in the private sector (Heyns 2010) and three in the public sector (Van Eeden 2010). In the private sector, the student is expected to work two weekends (Heyns 2010) and in the public sector one weekend (Van Eeden 2010).

Students are counted as part of the staff contingent on duty for the shift and are allocated with tasks and specific areas in the emergency unit in which to work, such as the medical resuscitation area, trauma resuscitation area or orthopaedic

emergency area. It is while working in these specific areas that they must utilise clinical learning opportunities.

The participants emphasise that the situation is not ideal for education and training, because the responsibilities they have while on duty often prevent them from using all the learning opportunities in the emergency unit, for example, they cannot practise or witness central venous catheter or arterial line insertion. This leaves the student with less time to focus on patient care.

The responsibilities to the employer and the ill or injured patient affect the contact which the students can have with the clinical facilitator. The participants reflected that they were expected to make appointments with the clinical facilitator on their off days. The participants viewed this as unfair.

The participants indicated that they should not work night shifts during the emergency nursing programme. An important issue that emerged from discussions regarding student status was that some of the participants indicated that they understood why they were being counted as part of the workforce and why they were working night duty. Despite them understanding the reasons for being counted as workforce, the participants suggested compromise, for example, not working night duty and working fewer weekends.

Part of the quest to be acknowledged as students is the need for fair treatment and equal learning opportunities. The participants indicated that there were various students with similar learning needs rotating at the same time through the emergency and critical care unit. These other students included medical students who had to perform similar advanced skills than that of the emergency nursing programme students. In some situations, medical students were given preference over students enrolled for the emergency nursing programme and the participants regarded this as an unfair practice.

Supportive reflections by the participants relating to "student status" were:

- ⇨ "… students aren't seen as students, they are seen as workforce …"
- ⇨ "… but they still need to do their nightshifts …"
- ⇨ "… I felt that working only 34 hours or 32 hours a week made a huge difference …"
- ⇨ "… when you are delegated in that area and you are so busy in that area and there is learning opportunities everywhere else in the unit but you don't get to go there to get your procedures done because you can't leave …"
- ⇨ "… if there is a medical student and a trauma student, the preference for practice is given to the medical student …"
- ⇨ "… a student is a student no matter for which field do they come from …"
- ⇨ "… so you have to go in on your off days for clinical facilitation …"
- ⇨ "… no one wants to come in on their off day for clinical facilitation …
- ⇨ "… I think it is good if students are being allocated as students …"
- ⇨ "… but being allocated as students…that is not cost-effective…"
- ⇨ "… there is such a short staff that they have to make it safe for the patient to have us [students] working there…"
- ⇨ "… if you are not being allocated at night in that area it is better because during the day you are more likely to be recognised as a student than at night …"
- ⇨ "… but they [management] will not change because there is a shortage of staff …"
- ⇨ "… but in reality that [student status] will never happen because we are too short-staffed for that to happen …"

Literature control: The current situation of the impact of business precepts on health care is not unique to this study setting, it is a worldwide phenomenon. In a study in Philadelphia in 2009, it was noted as a reality that staffing shortages do impact on the ability to provide learning opportunities that promote clinical competency and critical-thinking skills (Potts & Finn Davis 2009: 375). During research further a field in New South Wales in 2008, the researchers grasped that workload pressures and fewer staff resources in the emergency department make

provision of education increasingly difficult, thus, causing significant disruptions to the education programme (Leon & Morris 2008: 54). Similarly, in a study in the United Kingdom in 2008, Pearcey and Draper (2008: 595) remarked that in the current climate of consumerism, the values [and needs] of nurses were not necessarily congruous with what was considered as cost effective or efficient. Similarly, in this research study, phenomena such as staff shortages, workload pressures and business efficiency were all reasons given by students as to why they were counted as workforce. Although this is a seemingly valid rationale, there ought to be some consideration for the students' educational programme and the clinical learning needs of the student.

There are arguments for and against supernumerary status and research consistently provides insights into the positive and negative aspects thereof**.** The apprenticeship model dominated nurse education for most of the twentieth century (Begley & Brady 2002: 339). The apprenticeship model is a model where nursing students spent their time in practice where they worked as part of the nursing team, learning from qualified nurses; but learning was often unstructured and task-orientated (Elcock, Curtis & Sharples 2007: 4, 5). Apprenticeship training has also been replaced in Ireland by diploma nursing programmes offered in higher education institutions (McNamara 2007: 1517).

In the United Kingdom, nurse education moved into higher education institutions in the late nineties and supernumerary status was implemented; the goal for the student was to become a self-directed learner (Elcock *et al* 2007: 5). Subsequent to this move, there have been studies regarding supernumerary status. In a 2007 study of staff nurses' [registered nurse] perceptions of supernumerary status of diploma nursing students, staff nurses perceived supernumerary students as being excessively theory-focused, they were also frustrated because they could not delegate work to the students during busy times; overall, there seemed to be an unwillingness to accept them (Hyde & Brady 2002:629). This non-acceptance can thus deny students access to clinical learning opportunities. Exclusion of supernumerary nursing students from learning opportunities in practice has also been reported on by O'Callaghan and Slevin (2003: 127); they cite that a perception by other staff that students were just there to observe caused them to

feel left out. The challenge for supernumerary students is to participate in practice while becoming part of the nursing team; some find this difficult to achieve (Elcock *et al* 2007: 6).

Evidence in favour of supernumerary status is also portrayed in literature. It has been reported by supernumerary students, themselves, that they enjoyed their work more, they appreciated their student role and had increased confidence (Begley & Brady 2002: 344). A recommendation resulting from their study was that all supernumerary students should be encouraged to render full patient care under supervision so that they can learn and attain proficiency in all clinical skills (Begley & Brady 2002: 346). Social acceptance and professional incorporation are cited as two elements of joining the nursing team in practice (Cope, Cuthbertson & Stoddart 2000: 853); both are earned by working and demonstrating competence. If applied to this study, if the supernumerary student works and shows competence then exposure to adequate clinical learning opportunities should not pose a problem.

Even though the supernumerary status of students frees them from mandatory clinical duties it is possible that they may lack direction and guidance in the clinical setting. This can be attributed to lack of clarity on what their objectives are in practice, being shunned by ward staff or lack of presence of a clinical facilitator. Research pertaining to supernumerary status of nurses who have completed a post-basic clinical speciality similar to that of the emergency nursing programme, could not be found. However, the researcher is of the opinion that the dynamics and challenges relating to supernumerary status will transcend the settings in which they were conducted. In some the studies referred to in this section that touched on supernumerary status, it is noteworthy to mention that a commonality in the learning environments in each study was a person who teaches and facilitates (Brady & Begley 2002, Cope *et al* 2000; Elcock *et al* 2007). The success of supernumerary status is dependent on the critical presence of a clinical facilitator and a mentor who is there for the student for the entire duration of each practice rotation/experience; however, this is not necessarily a realistic expectation.

In the context of this study, it can thus be said that the students work according to an apprenticeship model whilst enrolled for the emergency nursing programme. The student reports for scheduled work shifts and is allocated duties and responsibilities that they must perform while working alongside skilled emergency nurse practitioners from whom they can learn. At other tertiary nursing education institutions in South Africa, all students enrolled for post-basic programmes have supernumerary status (Brysiewicz 2010; Nel 2010).

Recommendations relating to "student status":

- Students should not work night duty before scheduled theoretical lectures, semester tests and examinations.
- Students should only work night duty when the specific nursing education institution is in a period of academic recess.
- Student status must be enforced as one of the accreditation criteria for the accreditation of hospitals.

3.3.1.3 Exposure to learning opportunities

The students reflected that they have to be exposed to clinical learning environments where the objectives specific to their field of study can be realised. Students expressed the need to be exposed to a clinical learning environment where they can integrate what they learn in theory to what they experience and do in practice.

Supportive reflections by the participants relating to "exposure to learning opportunities" were:

- ⇨ "… the most important thing about the learning needs for trauma students is clinical skills that you will be taught here …"
- ⇨ "… each and every day you are on duty you need to practice certain skills …"
- ⇨ "… to be allocated to patients that will accommodate your learning needs …"
- ⇨ "… if you are not exposed to it [learning opportunities] then you don't get your practical skills …"

Literature control: Exposure occurs in the clinical learning environment. The clinical learning environment is where experiential learning occurs (Chan 2002a: 69) and that is why exposure is needed. The Experiential Learning Theory defines learning as *"the process whereby knowledge is created through the transformation of experience; knowledge is a result of grasping and transforming experience"* (Kolb & Kolb 2005: 194). Kolb and Kolb (2005: 194) summarise that the Experiential Learning Theory is built on six propositions, namely:

- **Learning is conceived as a process, not in terms of outcomes** (Kolb & Kolb 2005: 194): The proposition implies that learning is a knowledge- and skill-building process. The student needs to be exposed to opportunities in practice for the learning process to occur.
- **All learning is relearning** (Kolb & Kolb 2005: 194): The students have certain beliefs and ideas about a topic. Through integrating new knowledge with current ideas and experiences, they develop more refined insights into emergency nursing. Students have each been exposed to different emergency unit environments and have existing knowledge that is built upon during the emergency nursing programme.
- **Conflict, differences and disagreement are what drive the learning process** (Kolb & Kolb 2005: 194): When acquiring new knowledge, the students continually reflect on their current frame of reference and how it compares with the knowledge that they are currently acquiring. As a result, they come to a greater understanding and interpretation of the world of emergency nursing. When students are exposed to clinical learning opportunities they are continually reflecting on what they currently know and linking that with new knowledge.
- **Learning is a holistic process of adaptation to the world** (Kolb & Kolb 2005: 194): Students are not sponges who just absorb knowledge; they are holistic people who think, feel, and perceive the world in a unique way. Their past and current experiences within unique environments influence the way they integrate new knowledge into their worlds. The students have been previously exposed to other learning environments in their past, and their experiences there are affected by their exposure to the clinical learning environment of the emergency nursing programme.

- **Learning results from synergy between person and environment** (Kolb & Kolb 2005: 194): Students assimilate new experiences into their existing frame of reference and conciliate these new experiences; these result in a change in the way they perceive their worlds. The students find themselves in a clinical learning environment where their exposure to learning opportunities shapes and changes their frame of reference regarding emergency nursing.
- **Learning is the process of creating knowledge** (Kolb & Kolb 2005: 194): Based on a constructivist theory, the Experiential Learning Theory proposes that social knowledge is created and re-created in the personal knowledge of the learner. During exposure in the clinical learning environment, the student links theory with practice and new knowledge is created by the student that is specific to emergency nursing.

Bearing in mind the six propositions of the Experiential Learning Theory, it is clear that learning is a process of watching, thinking, feeling and doing (Kolb & Kolb 2005: 194). The student goes through a process of experiencing, reflecting, thinking and acting - in a recursive process - that is related to the learning situation and what is being learned (Kolb & Kolb 2005: 194).

Participants' reflections regarding different aspects of exposure were numerous and are discussed under the following clusters:

- Exposure to specific procedures
- Exposure in private versus public health sector
- The value of exposure to the critical care unit

3.3.1.3.1 Exposure to specific procedures

Students enrolled for the emergency nursing programme have to practise and acquire advanced skills and competencies specific to the care of the ill or injured patient. Participants listed some of the skills they found were important.

Supportive reflections by the participants relating to "exposure to specific procedures" were:

- ⇨ "… endotracheal intubation …"
- ⇨ "… intercostal drain insertion …"
- ⇨ "… central venous catheter insertion …"
- ⇨ "… arterial blood gas sampling …"
- ⇨ "… wound suturing …"
- ⇨ "… mechanical ventilation …"
- ⇨ "… primary and secondary survey assessment …"
- ⇨ "… the assessment, treatment and management of a critically ill or injured patient …"

Literature control: The clinical workbook, forming part of the emergency nursing programme, is used to guide the learning of the students in the clinical learning environment (Heyns 2008: 3). The clinical workbook indicates the specific types of ill and injured patients that the students are required to manage in the clinical learning environment. This includes medical emergencies such as respiratory, cardiovascular, neurovascular, neurosurgical, surgical, genito-urinary and renal disorders. Furthermore, it includes injured patients, varying from the minor to severely injured. The student is also expected to manage patients from different age groups, for example, the infant and child. Specific skills are required, focusing mainly on the advanced life support skills required in life-threatening emergencies, such as endotracheal intubation, insertion of high flow intravenous catheters and intraosseus lines. Some skills are required to at least be witnessed, such as insertion of a central line. It is preferable that, if possible, all skills be performed by the student. In the South African context, the following are some of the competencies that the emergency nurse practitioner must have in a life-threatening situation, namely, orotracheal intubation, intercostal drain insertion, central venous catheter placement, mechanical ventilation, arterial blood gas sampling, primary and secondary assessment (Heyns 2003: 239, 243, 245).

Recommendations relating to "exposure to specific procedures":

- Students must be exposed to emergency unit clinical learning environments where there are learning opportunities to acquire advanced core competencies for life-threatening situations.

3.3.1.3.2 Exposure in private versus public health sector

Private sector student participants again suggested rotation in the public sector emergency unit in order to acquire more exposure. This statement was supported by all the participants working in the private and public sectors.

Supportive reflections by the participants relating to "exposure in private versus public health sector" were:

⇨ "… I work in the private sector so it is difficult to get all the exposure that you get in the government hospitals; you get a lot of minor ailments, people doesn't want to go to his GP room, they come to the hospital instead, so you do not get the exposure and that makes you feel…not confident as well because you don't get the necessary exposure …"

⇨ "… the clinical learning opportunities [in public hospital] are excellent. We learn a lot and it makes you feel confident …"

⇨ "… the hospital [private] does not want to buy into allowing people to get the necessary exposure …"

⇨ "… move private students [students] to government hospitals [public sector] …"

Literature control: Refer to section 3.3.1.1, which discusses the category "private versus public health sector", which elaborates on the difference in degree of exposure for participants situated in these two sectors of health care.

Recommendations relating to "exposure in private versus public health sector":

- Private health sector students must be permitted to work a portion of time in the public health sector emergency units as during the emergency nursing programme.

3.3.1.3.3 The value of exposure to the critical care unit

The student spent approximately six to eight weeks in the critical care unit. Even though the time spent in the critical care unit is a comparatively short amount of time, the participants indicated the value of this exposure. The participants indicated that they viewed it to be an excellent clinical learning environment, which provided ample learning opportunities. The participants continued to say that they were able to develop an all-encompassing view of all the care that is rendered for critically ill and injured patients. This, in turn, enhanced their understanding of how a critical care unit operated and they also had more time to spend time with the patients' family and provide them with meaningful emotional support.

The participants stated that the exposure to mechanically ventilated patients in the critical care unit, which they regarded as a less emergent environment, enabled them to understand the concept of mechanical ventilation fully and grasp the knowledge and skill that is required to manage these patients. In summary, the value of exposure to the critical care unit was acknowledged by the majority of students. The participants regarded it as a good learning opportunity and said that it promoted feelings of confidence and competence. Two participants made suggestions regarding rotation in the critical care unit. The one participant suggested that only assistant care be rendered; meaning that students should not take care of patients on their own, but should work side by side with a critical care nurse. The other participant recommended that they should be required to start with their exposure in critical care units during their first year of the emergency nursing programme, not only during the second year.

Supportive reflections by the participants relating to "the value of exposure to the critical care unit" were:

- ⇨ "… it is important … because we [students] work pre-hospital, emergency unit, critical care…so you can follow the process all the time…of where the patients comes from [managed on the scene] and where he ends up [critical care unit] … it's the follow-through of it all …"
- ⇨ "… learning the routine of an ICU [critical care unit] …"
- ⇨ "… learning skills such as suctioning [endotracheal suctioning] and invasive [haemodynamic] monitoring …"
- ⇨ "… to be able to manage the patient and support the family … but still learn new things from the staff [critical care nurse] …"
- ⇨ "… becoming more knowledgeable, especially relating to the different equipment …"
- ⇨ "… learning more on ventilation [mechanical ventilation] … the different modes, integrate [ventilator] settings with the [arterial] blood gas …"
- ⇨ " … I think ventilation [mechanical ventilation] and then manipulating you [arterial] blood gases …"
- ⇨ "… I felt that it [critical care unit] was important and it was good for me to learn …"
- ⇨ "… you learn what the difference between the emergency care and critical care is …"
- ⇨ "… learning about the different approach of care ICU [critical care] nurses have in comparison with trauma [emergency] nurses …"

Literature control: Exposure to clinical learning is one of the cornerstones of nurse education. Almost all nursing programmes have a clinical element related to them and this makes the clinical learning environment crucial to the success of nurse education. The emergency nurse practitioner must be experienced in the assessment and management of *"urgent and emergent conditions"* (Cole & Ramirez 1997: 112; Heyns 2003: 17). Therefore, appropriate exposure to a clinical learning environment with these types of patients is essential during the emergency nursing programme.

The skills required and taught for the emergency nursing programme are not unique to the programme presented at the specific nursing education institution

where the study was conducted. During the evaluation of an emergency nurse practitioner educational program taught in Texas in 1999, the procedures, namely central line insertion, intraosseous infusion, chest tube insertion, needle decompression of the chest, cricothyroidotomy, suturing of simple and complex lacerations, and advanced cardiac life support were part of the clinical skills component described (Cole & Ramirez 1999: 549). Skills, as mentioned above, are taught in emergency nursing programmes in the United States of America (USA) and the United Kingdom (UK) (Heyns 2003: 242, 245, 247) and are also taught in the emergency nursing programme in this study.

Nursing practice requires the applications of complex combinations of knowledge, performance, skills, values and attitudes (Cowan, Norman & Coopamah 2007: 26); the opportunity to satisfy these combinations is offered through exposure in a clinical learning environment. It is during the students' employment that they seek out informal teaching and learning opportunities in the clinical learning environment (Mannix, Faga, Beale & Jackson 2006: 4). Exposure to relevant and appropriate clinical learning environments, while students are working, has an impact on the clinical learning needs of the student.

There were some negative experiences reported relating to exposure to the critical care unit. Analysis of these experiences revealed that these were related to a 'them-us' dichotomy that existed between staff working in the emergency unit and staff working in the critical care unit. This phenomenon formed a sub-category of this study and is discussed in section 3.3.1.7.1.

Exposure to clinical learning opportunities was closely linked to the category relating to "theory-practice integration". View section 3.3.1.4 where the category is discussed in depth.

Recommendations relating to "the value of exposure to a critical care unit":

- Students must work in the critical care unit clinical learning environment in accordance with requirements of the emergency nursing programme.
- Students should complete a 2-week rotation in a critical care unit during the first year of the emergency nursing programme.

3.3.1.4 Theory-practice integration

The students' goal is to become competent and confident emergency nurse practitioners. The participants indicated that they wanted to be part of the team that saves a life. A need expressed by the participants was to be able to know the rationale for the interventions performed in the clinical learning environment. The participants emphasised that they wanted to develop critical thinking skills and apply the "*correct knowledge*" and implement the "*correct skills*" when rendering total patient care.

The need to link skills and interventions was expressed. The participants indicated that they wanted to use the "*new theoretical knowledge*" learned in the classroom and link it to management protocols and evidence-based literature. The majority of participants agreed that clinical learning increased their self-confidence in the clinical learning environment because they could link theory to what they do in practice.

Participants mentioned the need to complete a clinical workbook. A recommendation was made that they could already start completing the workbook during the first year of the programme. The participants indicated that the clinical workbook was one of the tools they were able to use to link theory and practice; there are sections of the workbook that required them to report on medical treatment, interventions and management of specific illnesses and injuries with which patients presented. The participants pointed out that they wanted to be able

to recognise specific diseases and then be able to develop a nursing care plan for a specific patient that was based on their *"new theoretical knowledge".*

Supportive reflections by the participants relating to "theory-practice integration" were:

- ⇨ "… I think that a big change is to link you theoretical and practical work and find a rational for why you [student] are doing procedures and interventions …"
- ⇨ "… correlating theory with practice …"
- ⇨ "… theory-practice correlation…it's not separate entities and one needs to integrate the theoretical knowledge obtained with that what is happening in the practical field …"
- ⇨ "… if you are able to be confident and have the knowledge to back up your actions … what you know is right … especially sometimes a doctor … they will do something that you do not agree with and just having that confidence and knowledge to say "that is not right, you should do it this way or that way, because …."
- ⇨ "… link skills and knowledge to protocols and literature such as American Heart Association …"
- ⇨ "… I want to feel competent …"
- ⇨ "… how to critically think as an emergency RN [emergency nurse practitioner] and how to apply the knowledge I learnt …"
- ⇨ "… to integrate your work because they will ask you, *"Why are you doing this? What's the reason for it? …"*
- ⇨ "… for instance in our first year [students] we had a much lighter workload [theoretical and practical] … I feel … and a lot of the skills that needs facilitation now in second year could already be sorted out [in the first year] …"

Literature control: Nursing theory *"must be intimately related to practice"* (Vaughan 1990: 931). This quote supports the reality that students need to make sense of what they have learned in the classroom and apply it in the clinical learning environment; it is the *"transformation of formal knowledge into craft knowledge"* that occurs in practice (Field 2004: 560). The students attend lectures in a classroom setting and, while they are at work in practice, they apply their

knowledge to the management of patients. Critical thinking and advanced problem solving are integral parts of nursing practice and should be developed through nursing education programmes (Fero, Witsberger, Wesmiller, Zullo & Hoffman 2008: 146). The emergency nursing programme allows the student to apply knowledge to the pathophysiology of illnesses and injuries that are experienced in the clinical learning environment; this is when theory-practice integration occurs.

When theory-practice integration is limited, then a common term such as "theory-practice gap" comes to mind. The theory-practice gap is a metaphor; analysis of the meaning of this metaphor implies that there is a separate location of theory and practice (Gallagher 2007: 44). There is also a negative connotation attached to this term because it gives the impression that there is something lacking. In whatever manner this is perceived, it should not be ignored, and the concept should be embraced and used to integrate theory with practice. The theory-practice gap is not always perceived as negative. A study was done in the United Kingdom in 2000 into the perceptions of nurse teachers, student nurses and preceptors about the theory-practice gap; teachers viewed the gap as a beneficial phenomenon that encouraged students to develop problem-based learning and reflective skill to overcome that gap; alternatively, student nurses felt that a shortage of preceptors [mentors] affected the important role that preceptors have in helping students to relate theory to practice (Corlett 2000: 502, 503).

The theory-practice gap has been described and investigated extensively in literature. There are two factors that affect the theory-practice gap, namely, educational factors and clinical setting factors; it is assumed that if these two factors can be manipulated, then the gap will be reduced (Ousey & Gallagher 2007: 199). Educational factors imply that the style and method of education can narrow the gap. With regard to educational factors, the emergency nursing programme, just like any other, has objectives and outcomes that are determined by the specific nursing education institution. These objectives and outcomes are accepted as valid because the co-ordinators of such programmes are considered to be up-to-date with the rapid changes, locally and internationally, in the speciality of emergency nursing. The emergency nursing programme appreciates the value of learner-centred education. This is reflected by the fact that they involve students in the

evaluation of the emergency nursing programme annually so as to maintain the balance between what the specific nursing education institution regards as important and what the students' needs are.

Nurses prefer being taught through teaching methodologies that are learner-centred; although some students have a negative attitude towards the lecture method, this method cannot be discounted as having no place in nursing education (Vaughan 1990: 933). Students have their own role to play in integrating theory and practice. They know their cognitive and practical abilities and short-comings; therefore, specific individual learning needs can differ. Self-directed students are aware of their limitations and potential and have a sense of responsibility and an "*active attitude*" (Papp *et al* 2003: 266); if the student is self-aware then they will be able to fulfil their role in tailoring and personalising their theory-practice integration needs.

Clinical setting factors influencing the theory-practice gap, such as clinical facilitation, mentoring, positive working relationships and the actual clinical learning environment, can promote theory-practice integration. The clinical learning environment, in which the student is situated, in is important. This is supported by literature which states that "*practice placement is the interface between theoretical perspectives and the realities of practice"* (Cope *et al* 2000: 850). The researcher postulates that if this interface is conducive to learning, then theory-practice integration will be optimised for the student.

Clinical learning is important because it provides opportunities for "*role learning*", application of learned knowledge and skills, uniquely clinical learning, "*service learning*" and "*repeated practice*" (Uys & Gwele 2005: 79, 80).

- **"*Role learning*":** Clinical learning gives a student the opportunity for "*role learning as opposed to learning portions of a role*" (Uys & Gwele 2005: 79). While working in the clinical setting, the student learns how to fulfil the role of an emergency nurse.
- **Application of learned knowledge and skills:** The students have the opportunity to integrate what they have learned when caring for patients in a

real life situation (Uys & Gwele 2005: 79). The students are able to integrate theory from the classroom setting into practice in the clinical setting. This integration is a clinical learning need.

- **Uniquely clinical learning:** Certain things can only be learned directly in the clinical learning environment. This is especially relevant to technical competence because the student needs to apply various skills while working with patients (Uys & Gwele 2005: 80).
- **"*Service learning*":** This is learning that takes place while rendering a service like nursing. This type of learning promotes social, psychological and intellectual development of the student (Uys & Gwele 2005: 80).
- **"*Repeated practice*":** Student competence relies on the students repeatedly practising skills in different situations so that they can become competent emergency nurses (Uys & Gwele 2005: 80).

Another link in promoting theory-practice integration is the concept of clinical accompaniment, which is discussed in a category of its own (view Section 3.3.1.5).

Recommendations relating to "theory-practice integration":

- Students should start completing the clinical workbook in their first year.

3.3.1.5 Clinical accompaniment

When students join the programme, they experience feelings of uncertainty and self-doubt in practice and this is when clinical accompaniment is valued.

Supportive reflections relating to "clinical accompaniment" were:

- ⇨ "… I think it is important to have people in the unit who are willing and available to answer questions and to help you … to have someone to go to and say "I am stuck here, can you help me? …"
- ⇨ "… working with a knowledgeable staff member proved to be valuable"
- ⇨ "… we need to be accompanied and things explained …"
- ⇨ "… you doubt yourself …"

Literature control: "Escorting" refers to a person who is accompanying and guiding another person who does not know the intimate details of the path that they are walking (*Wordweb Dictionary* 2009: [Sa]). The word accompaniment is thus synonymous with the word "escort" because it suggests that there is a person present for support, advice and knowledge. This is true in the context of this study, where the student is accompanied and guided by nurse educators, who are experienced individuals, while they are in the clinical learning environment. In the context of this study, there is a nurse educator role in the clinical setting where skills development, theory-practice integration and clinical competence are key performance areas. The role in each setting is not fulfilled solely by one specific individual; it is rather shared with clinical facilitators and emergency nurse practitioners working alongside the student. In order for clinical accompaniment to be optimal, six of the core competencies of the nurse educator as described by The National League of Nursing, Minnesota, USA in 2005 (cited in Kalb 2008: 217) can be applied:

- ***"Facilitate learning"*** (The National League of Nursing, Minnesota, USA in 2005 [cited in Kalb 2008: 217]): Nurse educators are responsible for creating an environment in the clinical setting that facilitates student learning. Nurse educators ought to ensure that the clinical learning environment in which the nurse is situated can provide the necessary learning opportunities in order to produce competent nurse practitioners.
- ***"Facilitate learner development and professional socialization"*** (The National League of Nursing, Minnesota, USA in 2005 [cited in Kalb 2008: 217]): Nurse educators have a responsibility to help students to develop into

emergency nurse practitioners and become successfully incorporated into the profession.

- **"*Use assessment and evaluation strategies*"** (The National League of Nursing, Minnesota, USA in 2005 [cited in Kalb 2008: 217]): Nurse educators must use creative strategies to assess and evaluate students. Educators are challenged to provide learning opportunities that promote clinical competency and critical thinking skills (Potts & Finn Davis 2009: 375). If the nurse educator is aware of the clinical learning needs of students then current assessment and evaluation strategies can be maintained and even improved on, if needed.
- **"*Participate in curriculum design and evaluation of programme outcomes*"** (The National League of Nursing, Minnesota, USA in 2005 [cited in Kalb 2008: 217]): Nurse educators must help students to prepare to function effectively in the health care environment. Feedback is a fundamental aspect of teaching and learning (Clynes & Raftery 2008: 405). Although this statement is made in the context of educators giving feedback to students, the opposite to this statement can be applied. The students' reflections on clinical learning experiences are a resource that can produce insights from their point of view and, as a result, the nurse educator can consider these in order to ensure that clinical learning needs are met.
- **"*Function as change agent and leader*"** (The National League of Nursing, Minnesota, USA in 2005 [cited in Kalb 2008: 217]): Nurse educators must be individuals who can lead nursing education and practice, they are the ones who can effect changes. The student enters the clinical learning environment as a beginner and the nurse educator plays a role in leading the transformation of the student into a competent emergency nurse practitioner. As a "*change agent*", the nurse educator can also bring about changes in the clinical learning environment in order to meet the clinical learning needs of students.
- **"*Pursue continuous improvement in the role of nurse educator*"** (The National League of Nursing, Minnesota, USA in 2005 [cited in Kalb 2008: 217]): Nurse educators must consistently strive to improve on their role in the education of nurses. The nurse educator is there for the student and therefore, it is important to know if the student is having positive, valuable

learning experiences in the clinical learning environment. The nurse educators are ideally situated (within the clinical and classroom settings of the emergency nursing programme) to be able to adapt their role to ensure that clinical learning is aligned with clinical learning needs of students.

The abovementioned core competencies thus indicate the crucial and influential role that the nurse educator plays in the clinical learning environment and the fact that they are there to promote optimal clinical education of students enrolled for the emergency nursing programme.

The application of the principles associated with the problem-based learning approach in the clinical learning environment are that knowledge is constructed, the lecturer facilitates learning, learning is contextual and learning is the responsibility of the learner (Uys & Gwele 2005: 127).

- ***"Knowledge is constructed"*** (Uys & Gwele 2005: 127)***:*** Details of the problem have to be analysed or explained in terms of underlying principles, mechanisms and processes (Uys & Gwele 2005: 127). In the clinical setting clinical facilitators for the programme are urged to present the student, or a small group of them, with a case study or a clinical problem that they have to analyse and solve by applying new theory that has been learnt.
- ***"The lecturer*** **[nurse teacher]** ***is a facilitator of learning"*** (Uys & Gwele 2005: 128)**:** The nurse teacher is a facilitator of learning, not just a transmitter of knowledge (Uys & Gwele 2005: 128). In the clinical learning environment of the emergency nursing programme, the goal is not just to teach new information, but to facilitate a thinking pattern in the student which helps them to analyse and solve any problem with which the patient presents.
- ***"Contextual learning"*** (Uys & Gwele 2005: 129)**:** Learning in the clinical learning environment is "contextual learning" and research supports the value of situated, integrated learning (Uys & Gwele 2005: 129). This reinforces how ideally situated the students are to learn and how important it is to meet their clinical learning needs.
- ***"Learning is the responsibility of the learner"*** (Uys & Gwele 2005: 129)**:** This principle is communicated to the students when they join the emergency

nursing programme so that there is a shared responsibility and commitment to the learning process. Students have a role in extracting as much as they can out of their learning experience (Papp *et al* 2003: 266).

Recommendations relating to "clinical accompaniment":

- Clinical accompaniment should be a function of a clinical facilitator and mentor.

Two facets of clinical accompaniment were identified as important in this study and are discussed in two clusters, namely:

- The clinical facilitator
- The mentor

3.3.1.5.1 The clinical facilitator

The students expressed numerous needs regarding their experiences and expectations of the clinical facilitator. Participants said that more clinical facilitators were needed within the hospital. Some recommended a dedicated practice day be set aside so that time with a clinical facilitator was guaranteed and that the chance of interruptions during their contact could be kept to a minimum. It was also reported that completion of skills, according to the clinical workbook, were delayed because clinical facilitators were not always available or present. Mention was made of on-the-spot training so that all teachable moments in practice could be utilised as they occurred.

Supportive reflections by the participants relating to "the clinical facilitator" were:

- ⇨ "… more clinical facilitators within the hospitals."
- ⇨ "… on-the-spot training and facilitation …"
- ⇨ "… a dedicated practise day with clinical facilitator …"

Students also said they would like a clinical facilitator to be available to them on a daily basis. In the units where there were many students, they even suggested more than one clinical facilitator be available so that each student has an individual, productive session of contact. The participants' comments also indicated that they needed a clinical facilitator to explain and then demonstrate skills in order for them to know how to do it. Study participants from private hospitals stated that more than one clinical facilitator was needed due to most facilitators having the responsibility to facilitate other students too (see Section 3.3.1.1.3). The students also suggested that clinical facilitators be available over weekends and during night duty. In addition, the clinical facilitator should be made available to assist them during their rotation through the critical care unit.

Supportive reflections by the participants relating to the availability of "the clinical facilitator" were:

- ⇨ "… more support and accompaniment by clinical facilitator; often one is left alone with a patient and there are doubts as to whether your nursing interventions are correct. It would be beneficial to have better support from the clinical facilitator in order to gain more confidence and improve your skills and knowledge in practise …"
- ⇨ "… a clinical facilitator who is willing and available!! …"
- ⇨ "… facilitator sessions weekly with more than one facilitator …"
- ⇨ "… weekend and night duty facilitation…"
- ⇨ "… we need to be accompanied and things explained and demonstrated first then I can be expected to know it …"
- ⇨ "… we have a facilitator here one day a week to accompany us and we cannot do

Literature control: Teaching roles in the clinical learning environment have been described in literature worldwide, of which a few are: preceptor, clinical placement co-ordinator, clinical supervisor, clinical practice facilitator and lecturer practitioner.

"*Clinical placement coordinators*" are described as support staff for nursing students, they are responsible for ensuring that students achieve their learning outcomes; their responsibility is to "*ensure safe practice and facilitate*[s] *the establishment, maintenance and development of the clinical teaching partnership between staff nurses and students"* (McNamara 2007: 1520). In the context of this study this specific person with this unique role does not exist, but the clinical facilitators have a role in ensuring that students achieve learning outcomes. They also facilitate teaching in the clinical learning environment where other nursing students work.

A "*clinical supervisor"* plays a role in professional nursing studies; this person plays a part in guaranteeing the quality of nursing education (Häggman-Laitila *et al* 2007: 382). When applied to this study, the clinical facilitators do fulfil the role of clinical supervisor because they are expected to maintain the quality of education in the clinical learning environment through spending time demonstrating, teaching and assessing advanced skills.

"Link teacher" is another term used to describe the role of a teacher employed by a nursing education institution; this person mentors and supports students in practice and their role can cover theoretical and clinical teaching (Saarikoski, Marrow, Abreu, Riklikiene & Öznicakçi 2007: 409). When related to this study, a link teacher *per se* does not exist, yet the clinical facilitator does teach clinical and theoretical content while actively bridging the theory-practice gap.

A "*clinical practice facilitator*" is the description for a person whose role it is to identify clinical skill, educational and professional needs amongst all levels of staff (Ross & Clifford 2002: 546). When related to this study, this specific person does not exist, yet the clinical facilitator is involved in identifying educational and professional needs of students.

The "*lecturer practitioner*" role was introduced in Ireland because of the need for protected time with students; this person is employed by the specific nursing education institution and time is divided 50/50 between the institution and the practice setting (Noonan *et al* 2009: 561). When related to this study, there was not a dedicated person that fulfilled this function. Clinical facilitators were employed by the hospital for which they worked and the bulk of their time was spent at their workplace, not at a nursing education institution. In a study in Ireland into the effectiveness of the lecturer practitioner role, it was found that the lecturer practitioner plays an important role in unit-based teaching, as well as one-to-one teaching and was found to be an important resource of students and registered nurses (Noonan *et al* 2009: 563).

When reflecting on the various teaching roles mentioned in literature internationally, it is noticed that these roles or titles do not exist as separate entities in the context of this study. The participants' expectations of clinical facilitation are clearly stated in their quoted reflections. The role of clinical facilitators is pressurised and this has been acknowledged in literature. Heavy workload, insufficient time, and lack of appreciation of the clinical role are themes that have been identified surrounding the realities of clinical facilitators (Williams & Taylor 2008: 906). In order to satisfy the needs of the students, it is suggested that a few critical functions, which relate to the emergency nursing programme, be identified for the clinical facilitator to fulfil. There are also some functions of the clinical facilitator, which are described by participants, which can be fulfilled by a mentor. This is discussed in section 3.3.1.5.2.

Students agree that the best clinical teachers are ones who have *"sound interpersonal skills",* have the *"ability to produce feedback",* are clinically competent and *"know how to teach"*; they are *"good role models and encourage mutual respect"* (Kelly 2007: 886).

In the discussion that follows it is important to remind the reader that the conceptual definition of the clinical facilitator applies, namely, "*For the purpose of this study the clinical facilitator is an emergency nurse specialist appointed in an*

emergency unit to facilitate the development of skills and knowledge of students, who are enrolled for the emergency nursing programme." (view Section 1.8.5.1.)

The clinical facilitator referred to in this study is a person, appointed by the hospital in which the student works. The clinical facilitator needs to be an emergency nurse practitioner with experience in the field of emergency nursing. The clinical facilitator is responsible for enhancing the competencies of the student in the clinical learning environment. This is conducted by ensuring that the students acquire the skills necessary to be competent emergency nurse practitioners and facilitate theory-practice correlation. These competencies are vital in order to "*prepare advanced practice nurses for work in their specialty area"* (Hoyt & Proehl 2009: 91).

The clinical facilitators' role is central to the clinical learning of the students; they play a significant role in the clinical learning of students; they are meant to accompany the student and help to bring theory and practice together. This is consistent with the view of McNamara (2007: 1517) who states that the clinical facilitator acts as a change catalyst, educator and a monitor of student progress. The clinical facilitators' role is further reinforced by Murray and Williamson (2009: 3147) who state that clinical placements, provision of supportive learning environments and the role of mentors in supporting learners is important for students.

The participants requested that more clinical facilitators be available and there seems not to be enough of them in the clinical learning environment. This challenge was also noted during a study in Australia, where recruiting and retaining appropriately prepared facilitators was identified as a challenge that impacts on student learning (Mannix *et al* 2006: 6).

Pitfalls relating to clinical facilitation in the clinical learning environment have been described in literature and are congruent with statements made by participants. In a study in the United Kingdom into the transition of students to RN's, the following needs regarding the clinical learning environment were reported … "more *opportunities to practise under supervision", "more allocated time for reflection and*

learning" and "more attention to reinforcing knowledge and skills related to clinical practice and placement experiences" (Ross & Clifford 2002: 552).

The student's needs have to be analysed in a programme. Heimlich and Norland (1994: 192) denote the 4 steps of a needs analysis, namely, identifying the desired states, and the existing states, and assessing and prioritising the gaps.

- ***"Identify the desired state":*** This means that the clinical facilitators need to know what the student should be able to do upon completion of the programme (Heimlich & Norland 1994: 192). In the context of this study, the course objectives and expected outcomes of the emergency nursing programme are the "*desired state*" and these determine classroom and clinical teaching. The course objectives and outcomes should be communicated to the students so that they will know what they have to achieve in order to complete the emergency nursing programme successfully; this appears in detailed study guides that students receive for each theoretical and clinical subject. Alternatively, each autonomous student commences the emergency nursing programme with their own unique goals that they envisage for themselves and this is also part of the "*desired state*." This means that students' clinical learning needs are not completely congruent with the "*desired state*" as prescribed in the emergency nursing programme.
- ***"Identify the existing state":*** This indicates the extent to which the student already possesses the desired abilities (Heimlich & Norland 1994: 192). In the context of this study, this means that each student enters the emergency nursing programme with prior clinical experience and skills. These skills have been acquired in different clinical learning environments and this influences their uniquely individual clinical learning needs.
- ***"Assessing the gaps":*** The extent of the gap between the "*desired state*" and the "*existing state*" must be assessed (Heimlich & Norland 1994: 192). The student enters the emergency nursing programme because there is a gap between what they know and what they want to know once they have completed the programme. If nurse educators assess the gap, it can give them an indication of what clinical learning needs they have to focus on.

- ***"Prioritising the gaps":*** The gaps need to be translated into needs that have to be addressed (Heimlich & Norland 1994: 192). Once the gap between the existing state and the desired state is identified, the nurse educators' and students' roles are to prioritise and to then put strategies in place that address clinical learning needs.

One factor that influences students' satisfaction in a course is his/her expectations (Appleton-Knapp & Krentler 2006: 254) which further highlight the importance of a needs assessment. Clinical learning can be erratic and not all experiences are the same; therefore, it demands planning to maximize learning opportunities (Lambert & Glacken 2005: 665). A learning needs assessment, specifically for the clinical learning environment, provides direction and structure for reaching clinical learning needs of students.

Recommendations relating to "the clinical facilitator":

- A needs analysis should be conducted by a clinical facilitator and the student before the second year of the emergency nursing programme commences.
- Protected time must be allowed for the student to spend with their clinical facilitator while in the clinical learning environment.
- The clinical facilitator should know and understand the clinical learning objectives of the emergency nursing programme.
- The role of the clinical facilitator in the context of this study needs to be revised and redefined.
- The clinical facilitator must allocate specific protected time for one-on-one clinical facilitation on a weekly basis.

3.3.1.5.2 The mentor

Study participants made numerous suggestions for having a mentor. The participants mentioned the usefulness of having someone working with them, who understands the demands of the emergency nursing programme, who is

approachable and willing to teach, and can teach while on duty and working with patients. Participants gave feedback about the supportive role of a mentor. They did not give feedback or commentary on a mentoring role that can be fulfilled by a clinical facilitator.

Supportive reflections by the participants relating to "the mentor" were:

- ⇨ "… mentor-mentee project was used …"
- ⇨ "… buddy system for unskilled students …"
- ⇨ "… to have people who can actually work with students on their shift and lead/guide them …"
- ⇨ "… peer evaluation/learning I found was where I learnt the most, my trained colleagues [emergency nurse practitioners] doing on-the-spot teaching….those are the things I remembered the best … even in a stressful resus [resuscitation] situation …"

Literature control: The term "*mentor*" began to appear in nursing literature in the early 1980's; it is concerned with nurturing, inspiring and supporting (Yonge *et al* 2007: 1). The presence of a mentor influences the smooth transitions of students into new environments and their self-reported clinical experience (Andrews, Brodie, Andrews, Hillan, Thomas, Wong & Rixon 2006: 866). A mentor, at a basic level, is intended to support students and facilitate their learning experience in the clinical area; they also act as role model, supervise students' work and undertake clinical teaching (Andrews *et al* 2006: 866). In the context of this study, the role of the mentor must include nurturing, supporting an inspiring students while facilitating their learning experience. It is essential that they act as role models and are present in an assisting capacity.

Recommendations relating to "the mentor":

- Students should have a mentor in their clinical learning environment.
- Students should be scheduled to work whenever their mentor works.
- Protected time must be allowed for students to spend with their mentor while in the workplace.
- The role of the qualified registered nurse as clinical teacher in the clinical learning environment needs to be revived and by doing this there will be more informal teaching in practice and a greater sharing of knowledge.

The mentor cluster is divided into two sub-clusters, namely:

- The emergency nurse practitioner as mentor
- The second year student as mentor

a The emergency nurse practitioner as mentor

Participants highlight the benefit of having trained emergency nurse practitioners working with them in the clinical learning environment because they understand the requirements of the emergency nursing programme. They are a source of emotional support, and they have advanced knowledge and assist the students when they are practising newly-acquired skills. One participant suggested that mentoring and assessment had a positive impact on the attitude of all nursing staff to learning in practice and presented more opportunities for procedures to be assessed and signed-off.

Supportive reflections relating to "the emergency nurse practitioner as mentor" were:

- ⇨ " … a positive thing is the fact that we have so many qualified trauma sisters in the department now …, ", "… there is literally not a shift that goes by when you do not at least have one trauma sister, qualified trauma sister that is working …"
- ⇨ "… I got a lot of experience and knowledge from the people that were there already, that had already done the trauma course, and that encouraged me to do my course …," "… you see that they excel in what they are doing, and you also want to be that …"
- ⇨ "… there has got to be at least a trauma sister watching you and guiding you towards doing it correctly …"
- ⇨ "… we have got a mentoring system in our company; so they do formal in-house mentoring and assessment course and then they are appointed as a buddy to a student and they can also sign procedures because we (from the nursing academy) only visit hospitals once a month …"
- ⇨ "… if they can like have a formal system in place where they can assign people in specific units and make it part of their professional development and then send those specific people for courses, they can work in correlation with the university …"
- ⇨ "… perhaps a system could be worked out where one or two other trauma trained personnel who are employed in the unit could be appointed to a position where they assist the clinical facilitator when he/she is unavailable. Put simply, just so that there are other people to help. Obviously with shift work one person cannot cover all the students all the time …"
- ⇨ "… the other trauma sisters…those are the people you want to ask …"
- ⇨ "… I went and suctioned onto the older people who were here before me and you know I really irritated them sometimes, but they helped me a lot, they taught me everything I know up to today …"
- ⇨ "… it is difficult for one clinical facilitator…there are going to be times when you need her and she is not there, so maybe just to have that, kind of like, even unofficially other people who are willing to help you when she is not there …"

Literature control: *"Preceptor"* is a role that originated in the United Kingdom. A description offered by (Yonge *et al 2007: 3*) state that preceptors are professional nurses that pair with newly graduated students in the hospital environment and aid

them in their transition into a professional nurse; they are competent, experienced practitioners in their field. When applied to this study, the preceptor would be a competent, experienced emergency nurse practitioner who pairs with graduate emergency nurse practitioners and aids them in their transition into emergency nurse practitioners. This role highlights the importance of having experienced people in the workplace that students can learn from.

A "*preceptor*" is situated in the clinical setting and is the guide to new graduate nurses to promote clinical competency in nursing and promote professional socialisation (Truman 2004: 46). The role is associated with the transfer of practical clinical skills and role transition of new graduates (Yonge *et al* 2007: 3). The faculty of the emergency nurse practitioner training programme in Texas selects willing preceptors based on their qualification [as an emergency nurse practitioner] and their willingness to work with students. They are typically, prior graduates of the emergency nurse practitioner programme and some are current members of the faculty (Cole & Ramirez 1997: 114). The specific nursing education institution advocates the presence of an emergency nurse practitioner in the clinical learning environment, who is willing to work with students and play a role in facilitating their clinical learning needs (Heyns 2008). Considering the reflections of the participants, their need is for a person who supports them in the workplace by being a person who understands the demands of the emergency nursing programme. This person also knows what the requirements of the programme are and is someone who can assist them in their transition from student to emergency nursing practitioner. Participants' expectations indicate that they require a mentor to fulfil a combination of a mentor and preceptors' role.

The issues surrounding the availability of trained staff to act as mentor is well-documented. Shift patterns are also problematic and mentors want "*protected time*" so that they can engage with students and work together with them (Corlett 2000: 502). If applied to this study, the emergency students would have to be scheduled to work with their mentor. Their employer would have to allow them time in the clinical learning environment, where there can be uninterrupted discussions, demonstration and teaching. The participants proposed that their emergency nurse practitioner colleagues be their mentors. This is supported by

Gravett who says that small group interaction with peers is a useful tool in exploring and clarifying ideas to solve problems and to discuss questions (Gravett 2005: 53). Peer group interaction and establishing effective working relationships is a responsibility of the students' mentor (Beskine 2009: 36).

Therefore, interacting with knowledgeable colleagues in the clinical learning environment is a valuable source of learning for the student. The mentor is also more suitably placed to use all the teachable moments in practice from which the student can learn because both are working together in the unit, whereas the clinical facilitator is not always present in the emergency unit. Emergency nurse practitioners, who work in the emergency unit, are effective mentors because they have experienced the stress and anxiety of being a new graduate in the emergency environment (Truman 2004: 47). Thus, it is clear that emergency nurse practitioners are a resource that can be used in emergency units to mentor students.

A study in 2007 in Australia suggested an agreement be reached between the hospital and nursing education institution, regarding supervision of students. One aspect proposed was a buddy Registered Nurse system where the buddy RN works in conjunction with the clinical facilitator. The buddy ensures that students' clinical activities are supervised, provision is made for unit-based learning experiences, immediate needs and concerns of the student are identified and feedback is given to the student and clinical facilitator (Henderson *et al* 2007: 94). This suggestion is congruous with what participants in this study were suggesting: the clinical facilitator and the mentor should work together in order to make clinical learning a valuable learning experience for the student.

It is crucial that emergency nurse practitioners must be willing to help students to learn and implement new skills while they are in the clinical learning environment. If this does not happen, then the student can become isolated and demotivated. In a study into student impressions of clinical nursing in the United Kingdom, content analysis identified that mentors were influential members of staff and that students can feel disillusioned when support received from their mentors is lacking (Pearcey & Elliot 2004: 386). Similarly, in a study in 2003 in Finland where students'

perceptions concerning clinical learning were investigated. Students had a negative experience in a unit when staff members were not interested in mentoring, this tied in with one of four key elements of the learning environment, that of *"quality of mentoring"* (Papp *et al* 2003: 265).

Mentoring in the UK is officially recognised as a function of a registered nurse and, in order to become one, they have to pass an approved mentor preparation programme and they have to undertake annual continuous professional development to maintain and update their knowledge (Beskine 2009: 35).

Recommendations relating to "emergency nurse practitioner as mentor":

- A formal mentoring programme should be started.
- Emergency nurse practitioners should be mentors for students
- Students must have a qualified emergency nurse practitioner assigned to him/her as a mentor.
- The mentor should understand the clinical learning objectives of the emergency nursing programme.
- Mentor supports the clinical facilitator by:
  - Demonstrating new skills.
  - Supervising students during new skills acquisition.
  - Uses clinical learning opportunities as they occur in the clinical learning environment.
  - Providing feedback to clinical facilitator regarding student progress, specific learning needs and readiness for evaluation.
- The mentor should have weekly communication with clinical facilitator.

b The second year student as mentor

Participants gave feedback that a buddy system, where second year students mentor first year students, started by the specific nursing education institution at the public sector hospital in which they were situated, was valuable. They suggested the system should continue.

Supportive reflections relating to "the second year student as mentor" were:

- ⇨ "I think the nice thing about this year is that they've got us mentoring the first years [students]… that would have been an excellent idea for us in our first year …"
- ⇨ "… like a buddy system where someone buddys you …"

Literature control: Even though there are clinical facilitators, the role of the qualified registered nurse as clinical teacher in the clinical learning environment needs to be revived, and by doing this, there will be more informal teachers in practice and a greater sharing of knowledge; a clinical nurse educators' role is distinct from that of a clinician, but clinical teaching is part of *every* registered nurse's role (Conway & Elwin 2007: 188). Peer-assisted learning involves students and peers learning *from* and *with* one another (Christiansen & Bell 2010: 804).

Recommendations relating to "the second year student as mentor":

- The second year student should be a "buddy" mentor for the first year student who is enrolled for the emergency nursing programme.

3.3.1.6 Management "buy-in"

The students want management, at hospital level and unit level, to acknowledge and support their commitment to studying towards advanced knowledge and skills.

Supportive reflections relating to "management buy-in" were

- ⇨ "… buy-in from management …"
- ⇨ "… they must understand our commitment …"

Literature control: Each hospital has a management team that is in charge of the smooth operation of the hospital; this includes cost-effective medical care and ensuring that enough staff is on duty to care for patients. Private and public sectors of healthcare have a duty to promote and support the continuous education of their staff but at the same time they have to ensure that the hospitals are adequately staffed with competent nurses to render patient care, day and night. The mandate of healthcare institutions is to provide safe, competent care to the public and they have a duty to provide adequate resources, including education, in order to maintain competency and currency of the nursing workforce (Dyson, Hedgecock, Tomkins & Cooke 2009: 821). There is a responsibility for management to ensure clinical training as well. Clinical placement schemes for training require *"commitment and vision"* from education and clinical sectors, there must be "*effective coordination and communications*" and *"support from hospital administration"* (Andrews *et al* 2006: 872).

Recommendations relating to "management buy-in ":

- Senior hospital management should show appreciation for the commitment of students specialising in emergency nursing.

Management "buy-in" is further divided into two clusters, namely:

- ○ Recognition and support
- ○ Unit manager support

3.3.1.6.1 Recognition and support

One of the participants referred to the need for the top and middle hospital management to recognise and support their training needs and commitment to further education. They believe that one of the ways that management can show this support is by changing their shift schedules and rules during the two year emergency nursing programme.

Supportive reflections relating to "recognition and support" were:

- ⇨ "… support from higher up in the hierarchy [management] as well … and … buy-in from management …
- ⇨ "… not working as many weekends and not working as much night duty …"
- ⇨ "… less people and funding becomes a problem as well because they don't want to send people for the courses because budgets are thin …"
- ⇨ "… the trauma course [emergency nursing programme] is quite new and to management that doesn't carry much substance…they don't understand what we do …"

Literature control: Commitment to education by management is required, but costs are involved in educating students; in literature it says that the cost of education to an organisation and to individual nurses, who are required to fund their own education, is high (Dyson *et al* 2009: 821). Some students enrolled for the programme were "self-funders", meaning that their programme costs were not being paid by the hospital for which they worked, but by themselves. Thus their hospitals would possibly benefit from their speciality qualification without committing any money to their cause. There is evidence in literature that the commitment of management to education is often not present. In a study in Illinois in 2003, a nursing education survey was done to assess needs of emergency nurses. There were serendipitous findings such as participants reporting the administrators seemed to cut costs by limiting educational opportunities for staff and devaluating the commitment to continuing education for staff; secondly, emergency nurses reported that short-staffing placed increased responsibilities

upon them (Keough, Schlomer & Bollenberg 2003: 17). Furthermore, a guest editorial by an A&E Lecturer Practitioner in Leeds in 2004 emphasised that *"the department* [emergency] *and the hospital must be truly committed to education for all disciplines"…" hospitals must commit funding for education"* (McClelland 2004: 195). The issue of management support for continuing education is thus not confined to this study.

Recommendations relating to "recognition and support":

- Senior hospital management should make an effort to understand the speciality of Emergency Nursing Science.
- Senior hospital management should enforce the appropriate scheduling of students' duty rosters during the emergency nursing programme.

3.3.1.6.2 Unit manager support and orientation

Participants also indicated that the unit managers of the units where they work in need to know beforehand what their clinical learning objectives are and what their clinical facilitator contact needs are so that their duties can be scheduled to allow for clinical accompaniment. In addition, the nurse manager needs to understand the students' roster regarding class days and clinical facilitation so that duty rosters can be worked out to accommodate the student and the unit. Night duty is a shift from 19:00 to 07:00 and students need rest and sleep after working a night shift. They will therefore not be able to prepare for the lectures the day after they have worked a night shift. If students are accommodated in the form of appropriate scheduling of their working hours, then the students will feel that they have support from the unit manager for their clinical learning needs. Students also want other staff and doctors to be aware that they are enrolled for the emergency nursing programme and then there will be awareness from the multi-disciplinary team that there are students who have clinical learning needs with which all team members can assist with.

Students also need *orientation* to the physical environment that they work because new working environments are foreign to them. There is new equipment, treatment protocols and documentation that they are exposed to while working in the emergency unit and critical care unit.

Supportive reflections relating to "unit manager support and orientation" were:

- ⇨ "… more clear guidelines to the unit manager to outline what is expected of students e.g. learning needs, class days and hours to be worked … to avoid conflict or confusion between unit manager and student ..."
- ⇨ "… make staff [nurses and medical doctors] aware of who is on trauma course [emergency nursing programme] …"
- ⇨ "... unit management did not communicate with the clinical facilitator … meaning that half the students were on duty and the other half were not … so no effort was made to ensure that the students were on duty every Wednesday … this influenced the clinical facilitation and the students missed out on learning opportunities …"
- ⇨ "… we need to know the unit layout … the equipment, the paperwork …"

Literature control: In the clinical area, there needs to be an awareness of the intended outcomes for the students' learning and skills development and this must be communicated to clinical staff (Henderson *et al* 2007: 94). This statement supports the participants' requirement for the unit manager to know the learning needs of the student. As a result, the unit manager can make sure that the unit staff members know what they can do to help them achieve their educational goals. The unit manager is the person who works out the duty schedule of the individuals rotating through the unit, if he/she is aware of the students' timetable then the duty roster can be worked out with their needs being considered. The support of nursing unit managers is pivotal to the success of an education programme in the units; this is supported by literature that says that managers' support for the educators to conduct lectures/workshops and releasing staff to attend the programmes is invaluable (Leon & Morris 2008: 57). Students should thus be

allowed to attend important workshops and lectures during 'on duty' time without there being a disruption of patient care in the unit where they are working.

Clinical teaching, assessment and accompaniment of students should officially be part of the responsibility schedule and job description of registered nurses in training hospitals (Carlson *et al* 2003: 38). In lieu of this statement, the unit managers' influence on the clinical learning environment is crucial and essential; he/she is the one who cultivates an environment of learning and makes teaching part of the duties of the registered nurses, who are working in the unit. The unit manager is the one who organises and creates structure in the unit and this is not always simple, especially when it comes to clinical learning of students. The provision of education to nursing staff in a meaningful, standardised and co-ordinated manner remains a challenge for managers and educators in emergency departments (Leon & Morris 2008: 54). In a study in the UK, participants identified the ward manager as one of the key professionals who influenced their experiences of the clinical environment (Andrews *et al* 2006: 862).

Recommendations relating to "unit manager support and orientation":

An emergency nursing programme information booklet should be developed.

This booklet should contain information such as:

- The need for and advantages of protected time between emergency nursing student and clinical facilitator.
- Timetable for the theoretical component to be considered when working out the students' work schedule.
- Hours to be worked in the emergency unit.
- Hours to be worked in the critical care unit.
- Specific learning objectives for the emergency unit.
- Specific learning objectives for the critical care unit.
- Specific skills acquisition in the emergency unit.
- Specific skills acquisition in the critical care unit.
- The contact number of the co-ordinator of the emergency nursing programme.

Students should make an appointment with the unit manager of the specific unit to introduce themselves and present the emergency nursing programme information booklet.

The emergency nursing programme information booklet must be given to unit managers of specific units, where the students are scheduled to work, 4 weeks before they are due to start working there.

3.3.1.7 Working relationships

Pertinent to this study are the interpersonal relationships between the student, the unit manager, the unit staff, the mentor and the clinical facilitator. If good relations are fostered between the various parties, then the experiences of clinical learning should be more positive. Further affirmation of the need for good relations is a statement by Henderson, Winch and Heel (2006: 105) that "*partnering*" is a

first step to create a supportive environment that facilitates learning; this includes the clinical unit and its individuals/teams that help the student to become part of the staff.

This category of working relationships is discussed under two clusters, namely:

- 'Them-us' dichotomy
- Improved interpersonal relationships

3.3.1.7.1 'Them-us' dichotomy

Participants reported a divide between the two specialities of emergency nursing and critical care nursing. There is a need for emergency nurse and critical care practitioners to have a greater appreciation for one another's disciplines and to work together as members of the health team. One participant recommended that a positive attitude could contribute to a better learning experience in the critical care unit. Participants said that if critical care and emergency nurse practitioners understood and actually worked in one another's specialised environments, then that would promote mutual respect between them and decrease the negative attitudes that some students have towards their rotation in a critical care unit.

The critical care unit was described as a new area for the participants and along with it came new routine and different patient treatment priorities. They expressed the need for approachable critical care nurses who understand the students' learning needs while they are working in the critical care unit and help them to develop insight into different treatment goals and priorities in the critical care unit. Participants also felt that the critical care unit nurses had a limited understanding of what emergency nursing specialisation entailed and the significance of what the qualification would enable them to do.

Supportive reflections relating to "'them-us' dichotomy" were:

- ⇨ "… there is a big competition between the two disciplines … so they [critical care units] are not as open arms…not all the units [ritical care units] accept you with open arms …"
- ⇨ "… more support from nurses in the critical care unit … as they often feel we are in their space …"
- ⇨ "… do not have attitude towards the ICU [critical care] nurses…work together with the multidisciplinary team …"
- ⇨ "… many of us do not like ICU [critical care unit] and therefore go there with a big negative attitude …"
- ⇨ "… just as we have to learn their environment [emergency unit]…they need to come and see our perspective as well and understand the way we work …"
- ⇨ "… I think they also need to come and see what our environment [emergency unit] is about …"
- ⇨ "… it is so different and our priorities [emergency care] are so different …"
- ⇨ "… they [critical care nurses] stick to a set routine …"
- ⇨ "… like the one critical care nurse said …"*So where do you want to work when you are finished* [emergency nursing programme]?"… I just looked at her and said …"*in the trauma unit, I am doing the trauma course* [emergency nursing programme]" … she [critical care nurse] did not even know what I was doing there [critical care unit] …"

Literature control: Chan (2002a: 20) states that feelings of vulnerability amongst students are very common because students are often in a clinical area for a short period of time. This is true of the emergency nursing programme where students spend two weeks or a month at a time in a critical care unit. This presents a challenge for the unit and the student to make a success of the rotation in a limited period of time. Collegiality, team work and willingness of staff to interact with the students are integral parts of the environment that have a positive impact on nursing (Somerville, McIlwrath, Johnson, Langdon & Jones 2000: 32).

Students need to be welcomed into the critical care nursing team for the time period they are there; they need to feel part of the team and there should be good interaction between unit staff and the students. This would make for a more positive clinical learning experience.

If students are successfully integrated into the critical care unit without negative feelings from them or the critical care nurses, then the clinical learning environment is likely to be a more pleasant place to work. This is supported by a study in Cyprus that defined the clinical learning environment as "*consisting of the ward atmosphere that incorporates items like how easy the staff members are to approach, the spirit of solidarity among nursing staff and encouragement of students to participate in the discussions"* (Papastavrou, Lambrinou, Tsanagri, Saarikoski & Leino-Kilpi 2010: 177).

The clinical learning experience is not always a pleasant one and this can be affected by ward staff to which the student is exposed. In a study in Australia in 2006 into student learning, staff who were hostile or unhelpful was identified as a problematic variable (Mannix *et al* 2006: 6). Efforts must be made by students and the staff of critical care units to promote a healthy learning environment; a positive clinical learning experience is essential to prepare graduates who can function as competent practitioners (Somerville *et al* 2000: 32).

Recommendations relating to "'them-us' dichotomy":

- Critical care nursing students enrolled for the critical care nursing programme at the specific nursing education institution should complete a one month rotation in the emergency unit.
- Critical care emergency nurse practitioners should work 2 weeks per year in the emergency unit.

3.3.1.7.2 Improved interpersonal relationships

One of the participants indicated that students must make an effort to ask people for help when they wanted to learn about something new. Another participant mentioned that approachable staff makes the clinical learning experience more positive for them.

Supportive reflections relating to "improved interpersonal relationships" were:

- ⇨ "… if you do not know something, then you must ask, it doesn't fall in you lap, you have to work for it to get what you want, and if you don't know something and you don't ask, then you will never learn anything …"
- ⇨ "… it also helps if sisters are more approachable …"

Literature control: The student is an adult learner (Gravett 2005: 8) and also has a responsibility for having their clinical learning needs met. *"Informal teaching and learning is what students seek out for themselves during employment in the clinical environment"* (Mannix *et al* 2006: 4). The student must feel that they can approach experienced co-workers when they need a question answered or need help performing new skills. Students involved in training acknowledge their responsibility for their learning, this is demonstrated in the following quote, *"your mentor is there to guide you, not to do all the hard work for you" … "talk to people in more senior positions than you, once they know you are keen they will be happy to help"* (Redfern Jones 2004: 34).

Acceptance implies that there is a favourable reception by another party (*Compact Oxford English Dictionary for Students* 2006: 5) and this is why the students needs to be accepted by individuals in any clinical learning environment in which they have been placed. In previous research, nursing students have expressed the importance of being accepted by staff and the impact of peer support on their learning (Kelly 2007: 889). This view is supported by (Papp *et al* 2003: 266), whose research reveals that staff attitudes and behaviours are identified as factors in the clinical learning environment which students regard as important.

The clinical facilitator must work especially hard at creating and maintaining good interpersonal relationships within the units where the students work and with the specific nursing education institution. This is congruent with recommendations from a UK-based study into the roles of link teachers in clinical nursing practice which indicated a need to network within the hospital's link areas and clarify aims in order to harmonise service and higher education goals (Ramage 2004: 294).

The word 'attitude' is described as "*a way of thinking*" as well as "*self-confident, or uncooperative behaviour*" (*Compact Oxford English Dictionary for Students* 2006: 55). Attitude can thus have a positive or negative effect on interpersonal relationships, which is why positive attitudes are such an advantage for all the individuals in the clinical learning environment.

An attitude of mutual acceptance by all individuals in the clinical learning environment will thus contribute to optimising the clinical learning experiences of students.

Recommendations relating to "improved interpersonal relationships":

- Students must be aware of their own clinical learning needs.
- Students must take responsibility where they can for their own clinical learning needs.
- Students must forge positive working relationships with ward staff.
- Students must ask for guidance when they need it.

3.3.1.7.3 Collaboration

One participant recommended that there be improved communication of what students' working hours should be and what clinical learning needs were. There should be collaboration between the nursing education institution and the clinical practice area.

Supportive reflection relating to "collaboration":

⇨ "… better administrative correlation of what is our expected working hours and needs …"

Literature control: The clinical environment changes constantly and can be unpredictable, making it a challenge to plan an optimal learning environment for students (Papp *et al* 2003: 267). Given the reality that the clinical environment is ever-changing, the specific nursing education institution should do as much as possible to provide structure and guidelines for students, clinical facilitators, mentors and managers related to the clinical learning environment of students. Planning is essential and makes for an organised teaching programme. This is supported by (Mannix *et al* 2006: 4) who state that *"formal clinical teaching and learning takes place as part of the planned clinical experience of students, it is organised and facilitated by the university".*

In a study undertaken in South Africa into the clinical learning environment, there was a recommendation that there must be an agreement between nursing schools and health service authorities regarding the assistance with accompaniment of nursing students in the clinical health environment (Carlson *et al* 2003: 38). The specific nursing education institution in this study requires that a student has a clinical facilitator at the hospital where they work and this person must agree to be the clinical facilitator for the student for the duration of the emergency nursing programme.

There is literature that supports the challenges to and recommendations for student learning in practice. A study in New South Wales, Australia in 2005, identified challenges impacting on student learning, one being, "*ensuring strong links between education providers and industry partners to reflect a commitment to nurse education*" (Mannix *et al* 2006: 6). During research into work-based learning in the United Kingdom in 2001, it was found that a key factor in the collaboration between higher education and practice is that health care was increasingly dependent upon professionals who worked as a team (Chalmers, Swallow & Miller

2001: 604). In an Irish study in 2000 into the theory-practice gap in nursing and the role of the nurse teacher, the nurse teacher [programme lecturer] acting as a liason between ward and school was seen to have some benefits in that it fosters communication (Landers 2000: 1554-1555). Similarly, in this study there is thus a need for the professionals of the specific nursing education institution to collaborate with professionals within the hospitals that the students work. If there is a joint commitment from the two parties, then surely clinical learning experiences can reach their full potential. This collaboration should have a few essential elements such as: emergency programme clinical learning objectives, core competencies and skills required, clinical accompaniment requirements/expectations of clinical facilitators and mentors, and theoretical lecture schedules and examination dates for the academic year.

If there is communication and partnerships between training institutions and management of clinical learning environments, then this will enable the emergency nursing programme to respond to changes occurring in practice that impact on clinical learning. A study in the United Kingdom in 2001 concluded that there was a need for universities to be able to respond to changes created owing to changing health care policy and for education to be responsive and flexible; it is essential that there be a close collaborative working with partners (Chalmers *et al* 2001: 604). Another study in the United Kingdom in 2001 stated that the ethos of higher education in nursing included *"increased partnerships with stakeholders, especially employers, student-focused and flexible learning strategies, pathways of learning compatible with the workplace and facilitation of engagement in continuing development"* (Chalmers *et al* 2001: 598). The need for improved communication and relationships between institutions and clinical areas is supported by findings from Corlett's study into the perceptions of nurse teachers, student nurses and preceptors [mentors] of the theory-practice gap (Corlett 2000: 504). Interviewees stated that they perceived a lack of communication, relationship-building and information exchange between institutions and clinical areas; mentors felt they had limited information about the students' courses and the theory they had been taught prior to placement (Corlett 2000: 504).

Change is a normal occurrence of everyday life; the key is to being prepared to respond to changes. If open channels of collaboration are promoted and nurtured by the specific nursing education institution, then adjustments and changes will be able to be made to the emergency nursing programme, without significant disruption of students. This is supported by a study conducted in Greece in 2010 which states that "*the challenge for nurse educators is to find new innovative ways for the re-organization of nursing curricula and nursing practice so as to match the theoretical and academic element with the practical component of nursing education*" (Papastavrou *et al* 2010: 181).

Recommendations relating to "collaboration":

- A relationship must be forged between managers of clinical practice settings where students work and The Nursing Education Institution, where open communication regarding clinical learning is the focus.
- An emergency nursing programme information booklet should be developed (stated in recommendations for Section 3.3.1.6.2 on "unit manager support and orientation").
- The tertiary nursing education institution collaborates with the various private and public sector hospitals to make use of Chan's Clinical learning Environment Inventory to evaluate the student experience so that future experiences of clinical learning can be enhanced in that specific unit/hospital.

3.4 CONCLUSION

In chapter 3, the focus was on clearly laying out the findings of the study that relate to the experiences of students of the clinical learning environment, as well as linking these findings to literature. From the literature, it is evident that consistent learning support in the clinical learning environment is a crucial factor in promoting a positive clinical learning experience for students. The phenomena, directly or

indirectly related to support for clinical learning, were then described in more detail to form a platform for understanding the findings. The findings have resulted in the formulation of certain recommendations relating to the emergency nursing programme presented at the specific nursing education institution and the related clinical learning environments; these are detailed in chapter 4.

Chapter 4

Conclusions, limitations and recommendations

"Nothing is more dangerous than an idea, when you have only one idea"

Alain 1868-1951

4.1 INTRODUCTION

Chapter 4 marks the conclusion of the study. The research findings were discussed in detail in chapter 3 and these are briefly summarised in chapter 4. In this chapter, the research conclusions will be stated and recommendations based on the findings will be proposed.

The overall aim of the study was to evaluate the clinical component of the emergency nursing programme, through exploring the clinical learning needs of the students at a specific nursing education institution. In chapter 2, the researcher explained the methodology which assisted in reaching the set objectives which were to:

- Explore and describe the clinical learning needs of students rotating through the emergency unit
- Explore and describe the clinical learning needs of students rotating through the critical care unit
- Propose recommendations towards programme refinement pertaining to the clinical component of the emergency nursing programme

These objectives were addressed with the active participation of past and present students, who had completed the emergency nursing programme. The findings created a foundation from which to draw conclusions and, subsequently, provided the substance of the recommendations of this study.

In chapter 3 the students' perceptions regarding their clinical learning needs in the clinical learning environment were quoted and described. This promoted a deeper understanding of the physical clinical learning environment. In chapter 4, recommendations are formulated to enhance the facilitation of clinical learning needs of students in the clinical learning environment.

4.2 CONCLUSIONS

The central theme that emerged from the data analysis, and that was confirmed by the co-coder, and the supervisors, was learning support. Various factors relating to the central theme were identified, namely, private and public health sectors, exposure to learning opportunities, student status, theory-practice integration, clinical accompaniment, hospital management and working relationships.

The students reflected that learning support was not consistently provided in the clinical learning environment during their rotation through the emergency unit and the critical care unit. Enhanced learning support should be the outcome, if all recommendations are implemented.

However, the distinct factor relating to the clinical learning environment were the differences expressed between the clinical learning environments of private versus the public health sector. The students indicated the following differences between the public and private sector:

- there is less exposure to critically ill and injured patients in the private sector
- fewer opportunities to practise advanced skills in the private sector
- fewer clinical facilitators available in the private sector

- fewer emergency nurse practitioners working alongside students in the private sector

Public sector students indicated a need to have equal access to learning opportunities in relation to other types of students, such as medical students. It was evident that there was a sense of competition between different students enrolled for different health care education programmes for learning opportunities in this sector.

The need for student status, and not to be counted as workforce, was a need expressed by all the students. The students emphasised that being counted as part of the workforce and allocation to work night duty inhibited opportunities to reach clinical learning objectives in the clinical learning environment and caused disruptions to their theoretical component commitments such as lectures, written tests and examinations. Being counted as workforce was a source of frustration for all the students.

In addition to the burden of being counted as part of the workforce, the students join the emergency nursing programme with feelings of uncertainty and self-doubt, and they go through a period of adjustment to their new role as emergency nurse practitioner. They feel pressurised to satisfy the expectations of their employer and the clinical objectives of the emergency nursing programme.

Management, referring to senior and middle hospital management and the unit manager, need to show 'buy-in'. They should recognise and support the students' learning needs and commitment to further education. They should consider these needs when scheduling their duty roster.

Students want to be exposed to clinical learning environments that promote the integration of theory with practice, by being permitted to work in clinical learning environments where exposure is optimal, such as a public sector hospital emergency unit. They expressed a need to be exposed to specific environments where objectives specific to their field of study can be realised, such as the emergency unit. Students need to apply the correct knowledge and implement the correct skills when rendering total patient care.

To function comfortably in the clinical learning environment, the students need orientation to the physical environment, unit routine and treatment protocols of the specific unit where they work. Students valued the critical care unit rotation because they were able to practise advanced skills such as mechanical ventilation.

Clinical accompaniment was another source of concern. Students indicated a need for more frequent access to a clinical facilitator for longer periods at a time. This can be summarised as the need for protected, schedule time. A mentoring system to enhance clinical accompaniment was also a pertinent suggestion, although the availability of emergency nurse practitioners in the private sector for this purpose is less than in the public sector.

Working relationships and their influence on the clinical learning environment were highlighted as important by the students. A 'them-us' dichotomy existed between emergency nurse practitioners and critical care nurse practitioners and this influenced the students' clinical learning experiences in the critical care unit. The 'them-us' dichotomy has a negative impact on the learning experiences in the critical care unit because the students do not feel accepted by the critical care unit staff. Another working relationship of key importance is that which exists between the nursing education institution and key role players, such as the unit manager, clinical facilitator and mentor. There needs to be collaboration and partnering for the sake of an optimal and organised clinical learning experience for students.

During analysis of the data, it was clear that the majority of findings were applicable to the emergency unit and the critical care unit. Each of the questions posed as part of the focus group and naïve sketch were specific to either the emergency or critical care units. However, upon analysis of the data, it was clear that when participants provided insights into their clinical learning needs, that they followed the structure of the naïve sketch, but not of the focus group. When commentary was specifically aimed at the emergency unit or critical care unit, the participants indicated this. Recommendations are colour-coded (see Table 3.1 page 59) according to the applicability, namely:

- **Emergency unit**: conclusions and recommendations are applicable to the emergency unit only
- **Critical care unit**: conclusions and recommendations are applicable to the critical care unit only
- **Comprehensive**: conclusions and recommendations are applicable to the emergency and critical care unit

4.2.1 Emergency unit

The presence of an emergency nurse practitioner in the clinical learning environment as a source of knowledge and support, as well as role model, is crucial. Students view emergency nurse practitioners, with whom they work, as mentors. Emergency nurse practitioners are ideally situated in practice to fulfil the role of mentor.

4.2.2 Critical care unit

A 'them-us' dichotomy exists between emergency nurses and critical care nurses and impacts negatively on clinical learning experiences. Emergency nurses and critical care nurses need to cultivate a greater appreciation for one another's disciplines and to learn to work together as members of the nursing team.

Working in the critical care unit clinical environment allows the student to understand the critical care phase of care rendered and to practise advanced skills, especially mechanical ventilation.

4.2.3 Comprehensive

Students need to be validated by management hierarchies as 'students', who desire to be accommodated in the form of being given student status and having flexible duty scheduling excluding night duty.

Students have to be exposed to specific environments where objectives specific to their field of study can be realised and where the integration of theory and practice is maximised. There is more exposure to learning opportunities in public sector hospitals and students in private hospitals cannot use all the opportunities to practise advanced skills. It is for these two reasons the students in private hospitals desire to work in public hospitals in order to acquire more exposure.

Working relationships influence the clinical learning environment and these need to be improved at unit level between students and critical care registered nurses, between qualified emergency nurse practitioners and students, and between unit managers and students. This should also occur at senior management level between the specific tertiary institution and clinical learning environment managers.

Clinical accompaniment, which is the joint function of a clinical facilitator and a mentor, is not optimal. Clinical facilitation lacks structure and consistency and needs to be coordinated more effectively. Clinical facilitators need to be more accessible for longer periods of time in the clinical learning environment. The clinical facilitator needs to dedicate time to students during their rotation in all units where they work. The role of the registered nurse as mentor and clinical teacher needs to be revived.

4.3 LIMITATIONS OF THE STUDY

The limitations of this study include the following:

- The study was conducted in one specific tertiary nursing education institution; therefore, results may not be applicable to other similar contexts.
- The two focus groups were not ideally balanced in terms of equal representation of prior, current, private health sector and public health sector students. In the researcher's opinion, this allowed certain groups to dominate the focus group and this might have prevented other data from being brought to the fore during the focus group discussions.
- The aim of the study was to explore and describe the clinical learning needs of students; yet great emphasis was placed on the actual clinical learning

environment by the participants. Thus, specific clinical learning needs relating to both the emergency and critical care units have been described comprehensively and for this reason detailed findings for each area did not surface.

4.4 RECOMMENDATIONS

Forty-five recommendations were formulated from the research, and are set forth in Table 4.1 (see page 133). Recommendations were presented according to the theme, categories, clusters and sub-clusters from which they emerged.

Table 4.1: Recommendations relevant to categories, clusters and sub-clusters

CATEGORY	CLUSTER	SUB-CLUSTER	RECOMMENDATIONS
Private versus public sector (3.3.1.1)	**Degree of exposure**		1 Private health sector students must be permitted to work a portion of time in the public health sector emergency unit during the emergency nursing programme.
	Business efficiency	**Cost**	2 Students should be allowed to perform skills required as prescribed by the emergency nursing programme, regardless of cost implications. 3 Private health sector senior hospital management should support exposure to clinical learning environments that optimise clinical learning.
		Medico-legal	4 Private sector students should be permitted to perform advanced skills needed for life-threatening situations under direct supervision in the private sector.
	Clinical facilitation		5 There should be an adequate number of clinical facilitators in private sector hospitals. 6 There should be clinical facilitators in a private sector hospital specifically for the students enrolled for the emergency programme.

CATEGORY	RECOMMENDATIONS
Student status (3.3.1.2)	7 Students should not work night duty before scheduled theoretical lectures, semester tests, and examinations. 8 Students should only work night duty when the specific nursing education institution is in a period of academic recess. 9 Student status must be enforced as one of the accreditation criteria for accreditation of hospitals.

CATEGORY	CLUSTER	RECOMMENDATIONS
Exposure to learning opportunities (3.3.1.3)	**Exposure to specific procedures**	10 Students must be exposed to emergency unit clinical learning environments where there are learning opportunities to acquire advanced core competencies for life-threatening situations.
	Exposure in private versus public health sector	11 Private health sector students must be permitted to work a portion of time in the public health sector during the emergency nursing programme.
	Value of exposure to a critical care unit	12 Students must work in the critical care unit clinical learning environment in accordance with requirements of the emergency nursing programme. 13 Students should complete a 2 week rotation in a critical care unit during the first year of the emergency nursing programme.

CATEGORY	RECOMMENDATIONS
Theory-practice integration (3.3.1.4)	14 Students should start completing the clinical workbook in their first year.

CATEGORY	CLUSTER	SUB-CLUSTER	RECOMMENDATIONS
Clinical accompaniment (3.3.1.5)			15 Clinical accompaniment should be a function of a clinical facilitator and a mentor.
	The clinical facilitator		16 A needs analysis should be conducted by a clinical facilitator and the student before the second year of the emergency nursing programme commences. 17 Protected time must be allowed for the student to spend with their clinical facilitator while in the clinical learning environment. 18 The clinical facilitator should know and understand the clinical learning objectives of the emergency nursing programme. 19 The role of the clinical facilitator in the context of this study needs to be revised and redefined.

CATEGORY	CLUSTER	SUB-CLUSTER	RECOMMENDATIONS
			20 The clinical facilitator must allocate specific protected time for one-on-one clinical facilitation on a weekly basis.
	The mentor		21 Students should have a mentor in their clinical learning environment. 22 Students should be scheduled to work whenever their mentor works. 23 Protected time must be allowed for students to spend with their mentor while in the workplace. 24 The role of the qualified registered nurse as clinical teacher in the clinical learning environment needs to be revived and by doing this there will be more informal teaching in practice and a greater sharing of knowledge.
		The emergency nurse practitioner as mentor	25 A formal mentoring programme should be started. 26 Emergency nurse practitioners should be mentors for students. 27 Students must have a qualified emergency nurse practitioner assigned to him/her as a mentor. 28 The mentor should understand the clinical learning objectives of the emergency nursing programme. 29 Mentor supports the clinical facilitator by: •Demonstrating new skills •Supervising students during new skills •Acquisition •Uses clinical learning opportunities as they occur in the clinical learning environment •Providing feedback to clinical facilitator regarding student progress, specific learning needs and readiness for evaluation 30 The mentor should have weekly communication with clinical facilitator.
		The second year student as mentor	31 The second year student should be a "buddy" mentor for the first year student enrolled for the emergency nursing programme.

CATEGORY	CLUSTER	RECOMMENDATIONS
Management "buy-in" (3.3.1.6)		32 Senior hospital management should show appreciation for the commitment of students specialising in emergency nursing.
	Recognition and support	33 Senior hospital management should make efforts to understand the speciality of Emergency Nursing Science. 34 Senior hospital management should enforce the appropriate scheduling of students' duty rosters during the emergency nursing programme.
	Unit manager support and orientation	35 An emergency nursing programme information booklet should be developed. This booklet should contain information such as: • The need for and advantages of protected time between emergency nursing student and clinical facilitator • Timetable for the theoretical component to be considered when working out the students' work schedule • Hours to be worked in the emergency unit • Hours to be worked in the critical care unit • Specific learning objectives for the emergency unit • Specific learning objectives for the critical care unit • Specific skills acquisition in the emergency unit • Specific skills acquisition in the critical care unit • The contact number of the co-ordinator of the emergency nursing programme 36 Students should make an appointment with the unit manager of the critical care unit to introduce themselves and present the emergency nursing programme information booklet. 37 The emergency nursing programme information booklet must be given to unit managers of specific units, where the students are scheduled to work, 4 weeks before they are due to start working there.

CATEGORY	CLUSTER	RECOMMENDATIONS
Working relationships (3.3.1.7)	**"Them-us" dichotomy**	38 Critical care nursing students enrolled for the critical care nursing programme at the specific nursing education institution should complete a one month rotation in the emergency unit. 39 Critical care emergency nurse practitioners should work 2 weeks per year in the emergency unit.
	Improved interpersonal relationships	40 Students must be aware of their own clinical learning needs. 41 Students must take responsibility where they can for their own clinical learning needs. 42 Students must forge positive working relationships with ward staff. 43 Students must ask for guidance when they need it.
	Collaboration	44 A relationship must be forged between managers of clinical practice settings where students work and specific nursing education institution, where open communication regarding clinical learning is the focus. (An emergency nursing programme information booklet should be developed, see recommendation 33) 45 The tertiary nursing education institution collaborates with the various private and public sector hospitals to make use of Chan's Clinical learning Environment Inventory to evaluate the student experience so that future experiences of clinical learning can be enhanced in that specific unit/hospital.

4.5 RECOMMENDATIONS FOR FUTURE RESEARCH

Future research that could be conducted, based on the study findings, is suggested:

- An investigation of the supernumerary status of post-basic students.
- An investigation into the learning needs of students during their rotation in the pre-hospital setting.
- An investigation into the dual relationship of the clinical facilitator and the mentor during clinical accompaniment.

4.6 PERSONAL REFLECTION

As clinical facilitator and unit manager, I have come to realise the significance of the clinical facilitator, the mentor and the manager in the learning experiences of students. I have realised how important a unit manager's attitude is and how cultivating an acceptance of clinical learning can influence the clinical learning needs of students. A serendipitous finding which surprised me was the difference between the experiences of the students in the private and public sectors of health. During my contact with students (past and present) of the emergency nursing programme I have realised that being a student requires determination to succeed against all odds and I have great respect for students. I have also realised that, although each student is an individual, students have common goals and needs while they are in the clinical learning environment.

The research process has revolutionised the way I think.

4.7 CONCLUSION

In this chapter, the final conclusions of this study were summarised based on the research objectives. The limitations pertaining to this study have been indicated and recommendations have been based on the research findings. In addition,

recommendations regarding future research were made and as a final conclusion to the study a personal reflection on the research was included.

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Annexure A

Ethical approval

A.1

The Faculty of Health Sciences Research Committee

(University of Pretoria)

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty Ethics Committee
Faculty of Health Sciences
University of Pretoria

University of Pretoria

PO Box 677 Pretoria 0001
Republic of South Africa
http://www.up.ac.za
Tel: (012) 354 1980
Fax: (012) 354 1682

Office of the Chairperson
School of Health Care Sciences
Faculty of Health Sciences

To whom it may concern,

Evaluation of protocol for the following student:
Ms S Dance
The clinical learning needs of students in an emergency nursing programme

This letter serves to confirm that the abovementioned protocol served on the School of Health Care Sciences: Research and Postgraduate Committee of 2 September 2009 where it was approved and referred to the School Academic Advisory Committee for final discussion.

Sincerely yours,

Professor NC van Wyk
Chairperson: School Research and Postgraduate Committee

Annexure A

Ethical approval

A.2

The Department of Nursing Science (University of Pretoria): Permission to invite students of the Department of Nursing Science to take part in the research: Clinical learning needs of students in an emergency nursing programme

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💻 : nursing@medic.up.ac.za

PO Box 667, Pretoria, 0001 – Republic of South Africa
Web: https://www.up.ac.za Tel: (012) 354-2125 Fax: (012) 354-1490

9 September 2009

Ms S Dance
PO Box 2668
Cresta
2118

Dear Ms Dance,

Permission to invite students of the Department of Nursing Science to take part in research: Clinical learning needs of students in an emergency nursing programme

Permission is hereby granted that you may approach students from the Department of Nursing Science, UP to take part in your MCur study on the conditions as explained in the document 'Informed Consent' attached to your proposal.

I wish you well with this endeavour.

Prof Neltjie C van Wyk
Head: Department of Nursing Science

Annexure B

Participation leaflet and informed consent for emergency nursing student

Annexure B

Participation information leaflet and informed consent for Emergency nursing student

Dear Colleague

1) Title of the study

The clinical learning needs of students in an emergency nursing programme

Thank you for your willingness to participate in the focus group regarding the above-mentioned topic on _____ at_____. The total time scheduled for this group interview is two hours, starting at 10:00**.**

2) The aim of the study

You are requested to take part in a research study. The aim of the study is to explore the learning needs of emergency nursing students, regarding the clinical learning environment. Based on the findings, recommendations will be proposed to address these learning needs.

3) Explanation of procedures to be followed

Your participation will not be as a representative of the health organisation you work for, but as an individual. You are asked (as emergency nursing student) to participate in a focus group.

During the focus group interview, the following questions will serve as a guide only:

- What are the clinical learning needs of emergency nursing students in the emergency unit?
- What recommendations can be suggested to support the learning needs of students in the emergency unit?
- What are the clinical learning needs of emergency nursing students in the critical care unit?
- What recommendations can be suggested to support the learning needs of students in the critical care unit?

4) Risk and discomfort involved

As a participant, you will experience no discomfort. It will, however, take up approximately two hours of your time.

5) Benefits of the study

The clinical component of the emergency nursing programme will be addressed. Your inputs will inform the nurse educators and clinical facilitators involved in the programme about what the clinical learning needs of emergency nursing students are. This, in turn, will assist them to focus on the needs and move towards a student-centred approach.

6) Voluntary participation in and withdrawal from the study

Participation occurs on a voluntary basis, and you can withdraw from the research without stating any reason, should you no longer wish to take part.

7) Ethical approval

The Faculty of Health Sciences' Research Ethics Committee at the University of Pretoria has granted written approval for this study.

8) Additional information

If you have any questions about your participation in this research project, you should contact the researcher, Ms Sharmienne Dance –

Cell phone: [redacted]

Email address: [redacted]

9) Confidentiality

Your input into this research will be kept confidential. Results will be published and presented in such a manner that you, as a participant, will remain anonymous.

10) Consent to participate in this study

Your participation in this research is subject to reading and accepting the above information and signing the informed consent document below. A copy of the signed consent document will be given to you.

INFORMED CONSENT

I have read the above information leaflet and fully understand what is expected of me. Its content and meaning have been explained to me. I have been given the opportunity to ask questions and received satisfactory answers. I hereby volunteer to take part in this research.

_____ _____

Participant's signature **Date**

_____ _____

Person obtaining informed consent **Date**

_____ _____

Witness **Date**

……..

Sharmienne Dance

Researcher

Annexure C

Naïve sketch: Emergency nursing students

Annexure C

Naïve sketch: Emergency nursing students

1) What were your learning needs as an emergency nursing student, rotating through the ***emergency unit*** during your studies?

2) What recommendations can you make which can be utilised to support future students' learning needs whilst working in the ***emergency unit***?

3) What were your learning needs as an emergency nursing student, rotating through the ***critical care unit*** during your studies?

4) What recommendations can you make which can be utilised to support future students' learning needs whilst working in the ***critical care unit***?

Annexure D

Sample of data analysis

Sarah:: Exposure as well, I work in the private sector so it is difficult to get all exposure that you get in the government hospitals and you get a lot of minor ailments, people that doesn't want to go to his GP room, they come to the hospital instead, so you do not the exposure and that makes you feel … not confident as well because you don't get the necessary exposure.

Comment: E

Comment: E

FACILITATOR: So you felt as if you lost a bit of confidence in being exposed to the different situations?

Comment: E

Sarah: Yes.

FACILITATOR: Other group members? Your experiences?

Olivia: Okay I was before I started in emergency unit I was in the Surgical Female Ward. When I came here I got a lot of experience and knowledge from the people that were already, that had already done the trauma course, and that encouraged me to do my course. So, I think even this year we have a lot of Sisters that's been in the Emergency Unit for years and years and they are also going for the Trauma Course now, so it's also about learning from the previous groups that already did the course and you can see that they excel in what they are doing and you also want to be that, you also want to do that; so that is my experience. It makes you feel good, that you *want* to be there, you *also* want to be there.

Comment: M

Comment: M

Comment: M

FACILITATOR: You had a positive feeling about that and you also……. Was it like seeing them as a role model?

Comment: M

Olivia: Yes.

Annexure E

Confidentiality agreement by independent coder

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CONFIRMATION/DECLARATION OF CONFIDENTIALITY

I, Dr. Retha Visagie

Confirm/declare that the information and data that I have analysed on behalf of Ms. S. Dance (student number: 25399919), whom is undertaking an MCur degree at the University of Pretoria, will remain confidential and I will not discuss the contents thereof with any other person/s.

Signed at Pretoria on the 30th Day of June 2010

R Visagie

CODER

Miss S. Dance