THE INFLUENCE OF PEER MENTORING ON CRITICAL CARE NURSING STUDENTS' LEARNING OUTCOMES

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Declaration

This is to certify that the work is entirely my own and not of any other person, unless explicitly acknowledged (including citation of published and unpublished sources). The work has not previously been submitted in any form to the Durban University of Technology or to any other institution for assessment or for any other purpose.

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Abstract

Introduction

Critical care nursing is one of the most stressful specialities in the nursing profession that involves caring for patients who are suffering with life threatening illness or injuries. The highly technological environment where critical care nursing is rendered is associated with a great amount of stress, frustration and burnout. The critical care nursing student needs to be prepared, mentored and supported for the role transition from student to professional nurse. Nursing education and training cannot succeed without proper theory and practice integration. Therefore, the critical care nursing environment should be supportive of the improvement of teaching and learning. Peer mentoring is one important strategy to help foster an environment that is supportive of the critical care nursing student, allowing them to grow and succeed as experts within the speciality of critical care nursing.

Aim of the study

The aim of the study was to explore the influence of peer mentoring on critical care nursing students' learning outcomes in critical care units in KwaZulu-Natal.

Methodology

A qualitative exploratory research design was used to conduct the study. Ten nurses were recruited from the critical care units in five private and two public hospitals. Descriptions of their experiences were gained through individual face-to-face interviews. The broad question to the participants was: "What influence does peer mentoring have on the critical nurses' learning outcomes in the critical care unit?"

Results

The findings of the study revealed that peer mentoring is a vital strategy in helping the critical care nursing students to attain their learning outcomes so that they will be proficient in the critical care unit. Peer mentoring was however, not consistent in all hospitals and the critical care nursing students were not given the necessary support and supervision. There were no structured support systems in place to ensure that peer mentoring was formalized and that all required nursing personnel took on the responsibility to teach and facilitate learning for critical care nursing students.

Recommendations

Recommendations were made with regards to policy development, service provision, nursing education and research. These include that a formalized mentorship programme should be incorporated into the core competencies of all qualified critical care nurses, and to be reflected in their performance appraisal in order to motivate the registered nurses to fulfil their independent function as teachers. Each unit mentor should familiarize him/herself with the prescribed learning objectives of the critical care nursing student in order to be able to delegate appropriately so that learning outcomes are achieved by the mentee. There should be an allocation of supernumerary time for the critical care nursing student and their mentor to allow time for formal mentoring responsibilities to take place away from the clinical area, to facilitate assessment and feedback, and enhance consolidation. Ongoing evidence-based practice research should be conducted on this topic, to provide more information on how peer mentoring effects the mentee, nursing education and retention of skilled staff.

DEDICATION

I DEDICATE THIS DISSERTATION TO MY LOVING DAUGHTERS EMMELINE AND JOLENE WHO HAVE ALWAYS REMINDED ME THAT WITH GOD NOTHING IS IMPOSSIBLE. I AM GRATEFULLY INDEBTED TO THEM FOR THEIR PATIENCE, LOVE, SUPPORT AND ENCOURAGEMENT DURING THIS OVERWHELMING EDUCATIONAL JOURNEY OF MINE.

Acknowledgements

This is the fulfilment of a long rewarding journey in many ways for me. I do believe that we are all lifelong learners, so I am mindful that learning does not stop here. There are many very inspirational, mind shifting people who have inspired my path and I want to dearly acknowledge them.

- Prof. M.N. Sibiya and Ms T.S.P. Ngxongo, I salute you for the God fearing, purpose driven, shape shifting "ladies" that you are. You have helped me in ways you will never imagine. From giving me your time at unreasonable hours, to immaculate guidance in organizing all my literature to get me to this stage, you have further developed me into been a strong Lady and to that I say Thank you. May all your days ahead be filled with unmatched favour and divine breakthrough, as you go on blessing other students.

- To all my participants for their willingness to participate in this research. Your time and your experiences shared are most appreciated

- To my fellow nurse educators and my Learning Centre manager, thank you for the continuous encouragement and for helping me see beyond my challenges. You have taught me not to pray for an easy life but a stronger back, I appreciate you!

- To my husband Danny and my beautiful daughters Emmeline and Jolene; you have started this journey with me, and maybe all that started didn't finish this journey together but God's plans are different to ours and He has good intentions for us all. Thank you.

- Most importantly I am a blessed daughter of the most high God. I thank the Lord that He saw it fit to bless me on this courageous journey. His grace and mercy and His promises have seen me through

every valley and mountain experience. The Lord has perfected and still perfecting Jeremiah 29v11 in my life.

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Glossary of terms

Critical Care Nurse

The American Association of Critical-Care Nurses defines a critical care nurse as a licensed professional nurse who is responsible for ensuring that high acuity and critically ill patients and their families receive optimal care. The critical care nurses practice in settings where patients require complex assessment, high-intensity therapies and interventions, and continuous nursing vigilance. The Critical care nurses rely upon a specialized body of knowledge, skills, and experience to provide care to patients and families and create environments that are healing, humane, and caring American Association of Critical Care Nurses (AACN) (2013:3).

Critical care nursing

Critical care nursing is defined as advanced and highly specialized care provided to medical or surgical patients whose conditions are life threatening and require comprehensive care and constant monitoring. This care is administered in specially equipped units of a health care institution (Urden, Stacy and Lough 2010: 2-5). It is a nursing specialty that deals specifically with human responses to life-threatening problems.

Critical care unit

Urden, Stacy and Lough (2010: 2-5) maintain that a critical care unit is a specially equipped hospital area designed for the treatment of patients with life threatening conditions. This unit contains resuscitation and monitoring equipment and is staffed by nursing personnel who are specially trained and skilled in recognising and immediately responding to cardiac and other emergencies.

Learning outcomes

A student learning outcome is defined as "particular levels of knowledge, skills and abilities that a student has attained at the end of his/her engagement in a particular set of collegiate experiences" (Buffum and Brandon 2009: 359).

Mentorship

Mentoring is when a senior member of an organisation takes on a more junior colleague or may occur between peers, providing a variety of developmental functions. In this study, mentoring is an interactive, reflective, participatory process of relationship building, engagement and development between mentor and mentee during which the former develops and evaluates the achievement of specific development needs in order to achieve the outcome of empowerment and capacity building with regard to specific competencies (Seekoe and Arries 2011: 26).

Mentor

A mentor is an experienced person who advises and helps a less experienced person over a period of time (Hornby 2010: 927). In this study, a mentor will be the critical care nurse.

Mentee

A mentee is a person who is advised and helped by a more experienced person over a period of time (Hornby 2010: 927).

Peer mentoring

Hornby (2010: 1083) defines a peer as a person who is the same age or who has the same social status as you. Therefore in the current study, peer mentoring means mentoring of the critical care nursing student by other critical care nurses.

Professional nurse

A person registered with the South African Nursing Council (SANC) as a nurse under Article 16 of *Nursing Act, No 33 of 2005,* as amended (Republic of South Africa 2005). The terms 'registered nurse' and 'professional nurse' are used interchangeably.

South African Nursing Council: The body entrusted to set and maintain standards of nursing education and practice in the Republic of South Africa. It is an autonomous, financially independent, statutory body, initially established by the *Nursing Act, No. 45 of 1944*, and currently by the *Nursing Act, No. 50 of 1978* as amended to the *Nursing Act No. 33 of 2005* (Republic of South Africa 2005).

List of Acronyms

Acronym	Full term
AACN	American Association of Critical Care Nurses
DOH	Department of Health
KZN	KwaZulu-Natal
SANC	South African Nursing Council

CHAPTER 1 : OVERVIEW OF THE STUDY

1.1 INTRODUCTION AND BACKGROUND TO THE STUDY

Nursing is defined as an art and a science that is directed at providing healthcare service delivery (Nightingale reprinted 1969). Even though nursing follows scientific principles, it requires knowledge that is derived from the biological, natural, theoretical and clinical environment. Within the parameters of any nursing philosophy or ethic, student development and the quest for the knowledge is interwoven with practical experience. As the healthcare system continues to evolve and transform, so does the speciality of critical care nursing. Thus, critical care nurses of the 21st century are routinely caring for complex, critically ill patients, in a highly specialized environment (Morton and Fontaine 2013: 1).

Critical care patients are at a high risk for actual or potential life- threatening health problems. These critically ill patients require intensive and vigilant nursing care (Urden, Stacy, and Lough 2010: 2). According to Sole, Klein and Moseley (2012: 2), working in a critical care unit, either as a student or as a qualified staff member can be challenging. Critical care nurse training and education is designed to educate and train nurses working in a technologically advanced environment (Urden, Stacy and Lough 2010: 2).

In order for critical care nursing students to coordinate and manage healthcare, maximum use of clinical teaching experiences need to be utilized in the critical care unit. The critical care nursing student must be able to skilfully deliver high quality medical care, using all appropriate technologies. The student must also be able to apply psychosocial and other holistic approaches when planning and delivering care (Thelan, Davie Urden, and Lough 1994: 4). These students also have to follow stipulated teaching and learning outcomes that need to be achieved as per South African Nursing

Council (SANC) curriculum as detailed in regulation R212 as amended by No.R74 (SANC 1997). Hence peer mentoring is intended to be supportive in this stressful environment. The findings of the study that was conducted by Hunt and Ellison (2010: 192-196) show that peer mentoring provides opportunities for nursing students to build supportive student relationships.

Mentoring is promoted as a key strategy to support critical nursing students. Mentoring in nursing can be traced right back to the pioneer of nursing, Florence Nightingale, who had more than one mentor and who in turn mentored others (Hurst and Koplin-Baucum 2003: 176-180). Mentors acting as peer teachers can ease the transition from the academic training classroom to the clinical unit by assisting the critical care nursing student with problem solving and clinical skills to be able to handle the emotional impact of the work. Peer mentoring means that students take responsibility for their own learning and active participation in their learning process. This helps them develop and enhance a range of skills including teamwork, collaboration, reflection and communication skills, which are important requirements in nursing (Christiansen and Jensen 2008: 328-334). A study conducted by Dracup and Bryan-Brown (2004: 448-450) reveals that critical care nursing students are confronted with a vast array of complex situations and conditions, and a feeling of uncertainty and lack of confidence frequently surfaces.

The current growing shortage of nurses in the healthcare system is a global concern, and the critical care environment is not exempt from this. The intense and stressful nature of this environment may lead to frustration and burnout at very high rates (Race and Skees 2010: 163-174) which can result in difficulty in the recruitment and retention of the critical care nurse who is a vital component in a work force that is challenged by the global mobility of skilled practitioners. Traditionally, the critical care environment has had the advantage of a high proportion of skilled competent critical care nurses, but

currently it is not unusual for nurses commencing in this high paced technologically advanced unit to have no experience with this speciality.

1.2 PROBLEM STATEMENT

Although the role of mentoring in nursing has been extensively researched, there is little research on peer mentoring of the critical care nursing student in the critical care environment and its relationship to their learning outcomes. As early as 1970, literature reported stress and anxiety as interrupting learning among nursing students in a clinical learning environment (Moscaritolo 2009: 17-23). As healthcare technology continues to advance each year the clinical setting for nursing students becomes even more stressful. When asked about common sources of anxiety, students most often mention: first experiences at a new clinical site, fear of making mistakes, concerns about performing clinical skills and using hospital equipment and lack of support from nursing personnel (Moscaritolo 2009: 17-23). Within the literature, peer mentoring appears to be a tool that plays a significant role in decreasing critical care nursing students' anxiety and turnover in critical care areas (Buffum and Brandon 2009; McGrath 2009; Thomason 2006).

Critical care nursing is a speciality that requires licensed professional nurses to be able to deliver competent care with confidence in the dynamic critical care unit where patients' condition are unpredictable and can lead to life threatening situations which need vigilant attention (Urden, Stacy and Lough 2010: 4). A combination of senior students with less experienced peers can create a durable support system to aid in accomplishing the momentous task of preparing critical care nursing students for practice readiness and clinical competence in such situations (Ousey 2009: 175-184). Characteristically, critical care nursing students lack the experience needed in order to apply the theoretical foundation received in their education, and hence seek the help of more experienced peers.(Sims-Giddens, Helton and Hope 2010: 23-27).

Guillen (2010) questioned the reasons why peers were used to help ease the transition of the critical care nursing students from classroom into critical care settings instead of using nurse educators' expertise. Guillen (2010) showed that there were numerous barriers to the concept of peer mentoring such as the severe shortage of nurse educators, hence making the ratio of available educators to students too great to enhance an effective mentoring relationship. Robinson and Niemer (2010: 286-289), who state that there may be an increased understanding between both individuals promoting a more relevant learning experience and feelings of greater support and interaction by utilising a 'student-to-student' approach to mentoring. The same study by Robinson and Niemer (2010) has revealed that the demanding and uncompromising nature of the critical care nursing programme leads many critical care nursing students to discontinue their nursing education. Many critical care nursing students often underestimate the workload that the nursing programme entails, and try to balance many roles including family, work and personal health. The compounded stress of these multiple roles often leads to attrition (Robinson and Niemer 2010: 286-289). According to Hunt and Ellison (2010: 192-196), the presence of peer mentoring programmes increases the retention rates and the chances of academic success for the critical care nursing student. In the current study, a qualitative explorative research design was used to explore the influence of peer mentoring on critical care nursing students' learning outcomes. Data was collected using individual face-to-face in-depth semi-structured interviews with the participants and analysed using thematic analysis which was guided by the eight steps of Tesch's method of qualitative data analysis.

1.3 RESEARCH AIM

The aim of this study was to explore the influence of peer mentoring on critical care nursing students' learning outcomes in critical care units in KwaZulu-Natal (KZN).

1.4 RESEARCH QUESTIONS

- What influence did peer mentoring have on the critical care nursing students' learning outcomes in the critical care unit?
- What were the experiences of critical care nursing students regarding mentorship in the critical care unit?
- What were the perceptions of critical care nursing students regarding mentorship in the critical care unit?

1.5 SIGNIFICANCE OF THE STUDY

This study offers new knowledge on the topic of peer mentorship in nursing practice. It identifies the experiences and perceptions that critical care nursing students have in relation to peer mentorship within the critical care domain in their practice environment. The findings create awareness of the need for support for the critical care nursing student to obtain learning outcomes as specified by the SANC Curriculum. Provision of opportunities for autonomous clinical practice, participative decision making, and opportunities for professional development must be present in order to have a healthy organizational culture within the critical care environment (Bally 2007; Grossman 2007; Wolak *et al.* 2009).

A critical contribution of this study is to provide evidence that the developmental relationship in the form of a peer mentor and a peer mentee can effectively contribute to the achievement of critical care nursing students' learning outcomes (Robinson and Niemer 2010; Wilkes 2006).

1.6 OUTLINE OF THE DISSERTATION

Table 1.1 presents the outline of the dissertation.

Table1.1: Outline of the dissertation

CHAPTER	TITLE	OUTLINE
Chapter 1	Overview of the study.	Introduces and provides an overview of the study by identifying the topic of enquiry, research questions, and study aims. Background information regarding mentorship in both nursing and critical care, and the role it plays in recruitment and retention is provided in order to highlight the importance of the topic and justify the undertaking of this study.
Chapter 2	Literature review.	Presents a review of relevant literature pertaining to peer-mentorship in critical care units. Analysis of existing knowledge and evidence serves to inform the study's focus and design of the questionnaire for this study. Literature reviewed highlights such issues as the complexity of the critical care environment, and the organizational culture within the critical care unit.
Chapter 3	Research methodology.	Provides a detailed description of the study methodology with the rationale for the research design and methodological selection, implementation strategies and ethical considerations. The study population, sample, data collection, and data analysis methods are described in order that the reader may appreciate the intricacies of study design and the potential for research findings.
Chapter 4	Presentation of results.	Presents the results of qualitative data using thematic analysis of the data. Key findings include the themes and sub themes.
Chapter 5	Discussion of results	Discusses the findings of the study in relation to the clinical setting, data interpretation and within the context of the literature reviewed. The limitations and strengths of the study are identified in this chapter. Recommendations are made in relation to the key findings of the study

1.7 CONCLUSION

This chapter provides an overview of the study by identifying the topic of enquiry, research question and study aims. Discussion regarding mentorship and the role it plays in nursing, and its place within the critical care context has been presented in order to give the reader background knowledge of the study. The next chapter reviews, outlines and discusses the relevant literature concerning peer mentoring within critical care units.

CHAPTER 2 : LITERATURE REVIEW

2.1 INTRODUCTION

Chapter 2 presents a review of relevant literature pertaining to peer mentorship in critical care units, with a particular focus on peer mentoring of the critical care nursing student. Analysis of existing knowledge and evidence serves to inform the study's focus and design of the data collection instrument for this study. Literature reviewed highlighted issues such as the complexity of the critical care environment and the organizational culture within the critical care unit. A literature search of the topic was done using the following electronic databases Medline (PubMed), Ovid, and Google Scholar. The search terms used included a combination of key words such as critical care nurses, mentorship, mentor, critical care unit, and peer mentorship.

It has been clearly documented over decades that critical care nursing students suffer from high degrees of stress during their clinical orientation or placement in the clinical environment. Nursing education and training cannot be successful without proper theory and practice integration (Carson and Carnwell 2007: 221). A study conducted by Higgins and McCarthy (2005: 218-224) suggested that mentors make a significant contribution to nursing students' nursing capability. Previous studies have explained the advantages of peer mentoring, such as reducing anxiety, improving self-confidence, and increasing professional and personal growth, but no research has been conducted on the effects of peer mentoring on critical care nursing students' learning outcomes. Attaining these learning outcomes, which are set by the course regulatory body, is a fair indication that the critical care nursing student will evolve as a competent and efficient practitioner. Continuous professional development will complement the theory and practice integration that is so vital in the critical care environment.

Peer mentors have been found to create a more collaborative learning system as they are found to be more understanding and able to relate to their mentees. A study conducted by Sims-Giddens, Helton and Hope (2010: 23-27) found that the participating nursing students were able to cooperate and hence accomplish much with their mentors. Participants were able to benefit from each other's strengths, and reconcile each other's weaknesses as a group. By using a student-to-student approach to mentoring, there may be an increased understanding between the mentor and mentee, hence giving rise to a more relevant learning experience, and feelings of greater support in a stressful environment (Robinson and Niemer 2010: 286-289).

Critical care nursing is a speciality that requires licensed professional nurses to be able to deliver competent care with confidence in the dynamic critical care unit. Patients in the critical care unit present with unpredictable life threatening situations, which need vigilant attention. The American Association of Critical Care Nurses (AACN) has established nursing standards that provide a framework for South African critical care nurses. Urden, Stacy and Lough (2010: 5) explain that as per the AACN's framework for critical care nursing, a key role and responsibility of the critical care nurse, is to monitor and safeguard the quality of care that the patient receives.

2.2 EVOLUTION OF CRITICAL CARE NURSING

Critical care nursing has developed largely in response to gaps in service provision and in response to new medical or surgical developments. Prior to 1952 patients suffered respiratory muscle paralysis due to polio and were kept alive with negative pressure ventilators, known as 'iron lungs'. Almost 87% of these patients eventually died. Doctors further developed a combination of manual positive pressure ventilation provided through a tracheostomy, and nursed these patients in a particular unit. This innovation led to specially equipped areas to support critically ill patients (Lassen 1953: 37).

Critical care as a speciality emerged in the 1950s and 1960s in Australia, North America, Europe and South Africa. However, during these early stages critical care nursing consisted primarily of coronary care units, cardiothoracic units, and general intensive care units for patients with respiratory compromise. It was later on that development in renal, metabolic and neurological management principles led to the 21st century critical care set up (Hudak *et al.* 2008: 474-477).

A number of features led to the development of critical care including nurse's courage to work in unfamiliar settings caring for patients who were extremely ill, a role that required a high level of competence, practice and knowledge. This also led to increased demand for education specific to critical care, which was initially difficult to meet owing to the absence of experienced nurses in this speciality. The development of modern technology such as mechanical ventilators, cardiac monitors, pacemakers, defibrillators, and other cardiac assist devices promoted development of additional knowledge and skills. It was evident that patient outcomes were improved through the use of optimal technology, together with nurse's skills and staffing levels. The role of adequately educated and experienced nurses in the critical care units were recognized as essential from an early stage, and hence led to the development of this nursing speciality of critical care (Hudak *et al.* 2008: 474 -477).

2.3 CRITICAL CARE NURSING IN THE 21ST CENTURY

Modern critical care is provided to patients by a multidisciplinary team of healthcare professionals who have an in-depth knowledge of this discipline (Urden, Stacy and Lough 2010: 3). Critical care nursing is a global speciality. The practice of critical care nursing, in just over 50 years, has spread to nearly every country in the world, Critical care is provided in specialized units and emphasis is placed on the continuation of care with skilled expertise. Critical care patients are of a high risk for actual or potential life threatening problems, thereby needing this constant and vigilant nursing care (Urden, Stacy and Lough 2010: 4). Theory and clinical integration is of vital importance in the critical care unit, proving to be a major challenge for the critical care nursing student, the

senior critical care nurse providing the mentorship and the healthcare organization as a whole. In addition, skills shortages are emerging due to many contributing factors such as brain drain and burn out amongst critical care nurses leading to the pool of competent skilled critical care nurses being depleted (Hudak *et al.* 2008: 474-477).

2.4 CHARACTERISTICS OF A CRITICAL CARE NURSE

The characteristics of a critical care nurse are best described by (AACN 2013:3) in the tele-ICU-guidelines for critical care nursing. In this document (AACN 2013:3) the critical care nurse is defined as a licensed professional nurse who is responsible for ensuring that high acuity and critically ill patients and their families receive optimal care.   The critical care nurses practice in settings where patients require complex assessment, high-intensity therapies and interventions, and continuous nursing vigilance. This necessitates that these nurses have a specialized body of knowledge, skills, and experience to provide care to patients and families and create environments that are healing, humane, and caring. Another critical function of the critical care nurse is that of being a patient advocate which according to AACN (2013: 3) is defined as respecting and supporting the basic values, rights, and beliefs of the critically ill patient.   Cohen, Zimmermann and Wolak (2007) attest to this when they describe the critical care nursing unit as a place of high patient acuity, complex pathologies, and multiple "unknowns" that requires nursing staff working in the this unit to display unique qualities and high levels of critical thinking, both as individuals and as part of a team.

According to (AACN 2013: 4), the Scope and Standards for Acute and Critical Care Nursing Practice is grounded in three conceptual frameworks. These include:
- The nursing process which provides the model for nursing practice that describes the steps nurses take to create, implement, and evaluate a plan of care.
- The AACN Synergy Model for Patient Care which is the framework that describes the creation of optimal patient care and outcomes when patient characteristics and nurse characteristics are effectively matched.

- The AACN Standards for Establishing and Sustaining Healthy Work Environments: a Journey to Excellence which provides the rationale and criteria for creating the optimal environment in which nurses can provide care.

2.5 CRITICAL CARE NURSING IN SOUTH AFRICA

Numerous factors such as inadequate salaries, limited career opportunities, poor public image of nursing, increased workload due to inadequate staff, and lack of safety and security in the work place, have led to a brain drain from South Africa (Oosthuizen and Ehlers 2007: 14-26). In light of the shortage of registered critical care nurses and other highly skilled personnel, the occupation specific dispensation (OSD) was implemented in July 2007, with a focus on career progression for all categories of nurse (Oosthuizen and Ehlers 2007: 14-26). This includes career pathing review, pay progression, and recognition of seniority. However, over spending has been a problem in the OSD programme leaving some provinces depleted of funds (Wildeshut and Mqolozana 2008: 4-6). Despite the good intentions of the South Africa government, poor communication and insufficient allocation of funds has had a negative effect (Wildeshut and Mqolozana 2008: 4).

2.6 CRITICAL CARE NURSING EDUCATION AND TRAINING IN SOUTH AFRICA

Elliott, Aitken and Chaboyer, (2012:4) highlight the importance of appropriate preparation of the critical care nurse whom they referred to as the specialist critical care nurse, inorder to be able to provide quality care to patients and their families. According to these authors, a formal a central training within this framework of this preparation is the formalised education of the nurse to practice in critical care areas. These authors further highlight that, formal education should be provided in conjunction with experiential learning, continuing professional development and training and reflective clinical practice.

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Critical care nursing education and training was first established in 1966, as a post registration qualification. Critical care nurse training is made available to all registered nurses in the private and public colleges where training is offered at a diploma level with a duration of one year, and at the universities at a degree level with duration of two years. This training is registered with the regulatory body the South African Nursing Council (SANC) as critical care nursing. The SANC regulation R2598 as amended by R260 (SANC 1991) prescribes the legal, ethical and professional responsibilities of this qualification. Currently, critical care nurse training is offered by 10 universities in South Africa where research is a major focus.

In order to provide quality care to patients in a critical care unit, appropriate preparation of specialist critical care nurses is a vital component. An important element of this preparation is formalized education in critical care, so that the nurse can practice knowledgeably and scientifically. Research has shown that formalized education in conjunction with experiential learning, continuing professional development and training, and reflective clinical practice is required to develop competence in critical care nursing (Robinson and Niemer 2010: 286-289). The knowledge, skills and attitudes necessary for quality critical care nursing practice have been articulated in statements of competence in many countries (Elliot, Aitken and Chaboyer 2012: 4).

The critical care nursing student, with their inexperience and inadequate supervision are expected to function at the same level of expertise as qualified staff. This has a negative impact on the quality of care provided to the critically ill patient. Nurses in South African critical care units are placed on a waiting list for the critical care nurse training and it can take several years before they are sent for the training course, due to shortage of skilled staff left behind to carry the workload. Alternatively, they can outsource their own training privately, and this may require time off work or even moving to another clinical facility (AACN 2013:4).

2.7 THE PROCESS OF LEARNING FOR THE CRITICAL CARE NURSING STUDENT

The novice nurse is expected to progress to a competent and independent critical care nurse. Daley (1998: 135-147) build on Benner's Novice to expert model and examined the different learning processes used by novices and experts. This author discovered that the novice's learning processes tend to be contingent on the process of concept formation simple because the novices have little experience with real situations and therefore must rely on the rules they have learned in their preparatory education to function. Their process of learning is affected by fear mistakes and the need for validation (Daley 1998:135), which are all important indicators for the need for guidance and support which can be offered through peer mentoring. The importance of peer mentoring is further indicated in the same study by (Daley 1998:135), where the novices described how they did not even know, what they did not know and that in order to cope with situations they would tend to adapt to the ideas of others. Figure 2.1 illustrates the process of learning for a novice as stated by (Daley 1998: 135)
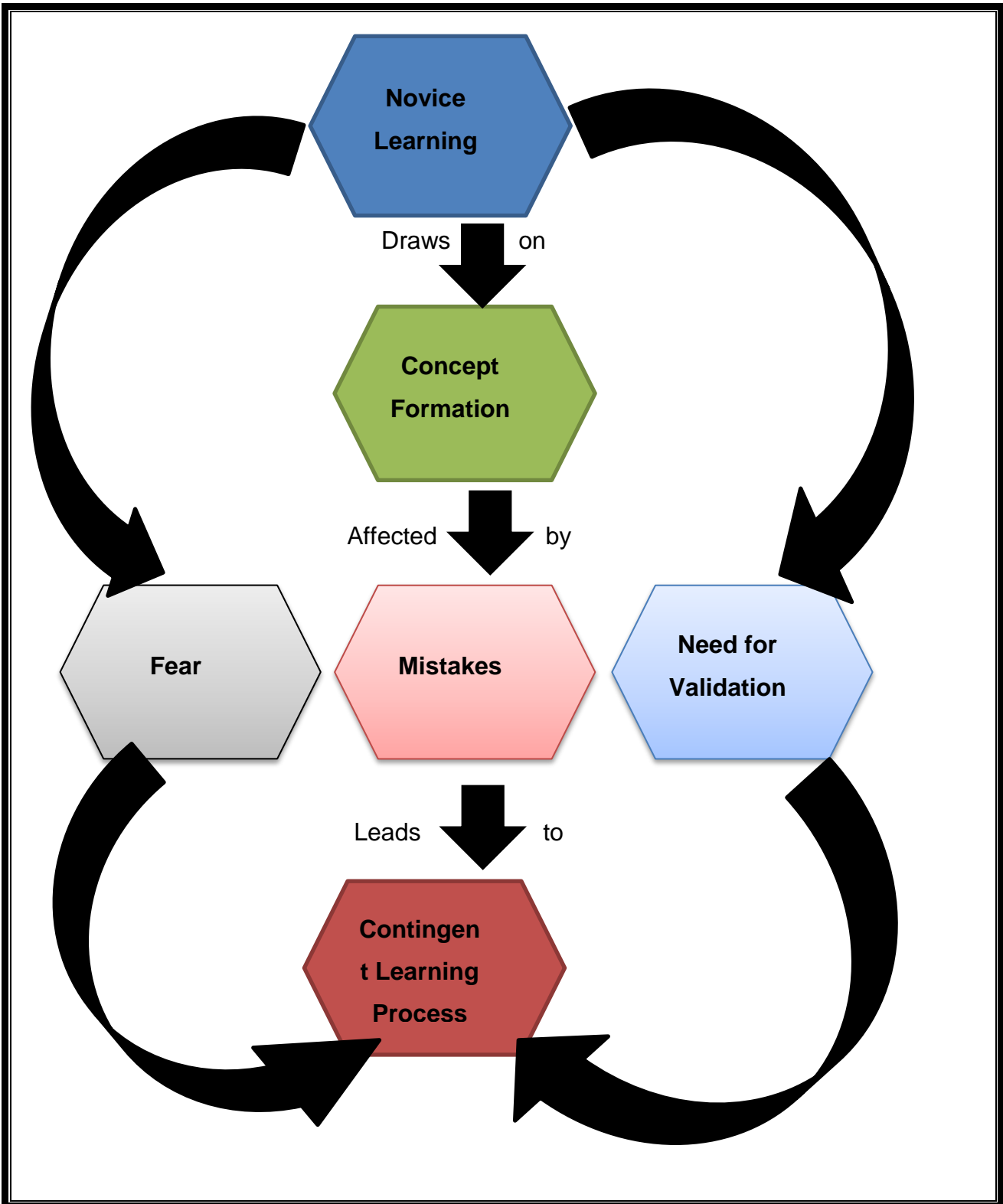
Figure 2.1: Processes of learning for the Novice Nurse (Daley 1998:135)

2.8 MENTORSHIP IN NURSING

The word mentoring denotes a person who helps another one to understand the system and offers guidance on how to be successful in the organisation within a specific discipline. In a study conducted by Dennison (2010: 340-342), mentorship was found to be a relationship where skills or knowledge was exchanged from someone with more experience to one with less experience. Johnson and Anderson (2010:113-114) describes the concept of mentoring, as being popular in the military context where followers become familiar with a well-developed style of leadership that should help them to better develop their own style. Johnson and Anderson (2010:119) further states that mentoring has been used to describe the master craftsman, who trains his apprentice in the art of his trade and also ensures that he/she grows up to follow certain values perceived by the society to be important. Mentoring is somehow similar or at least comparable to leadership, managing and apprenticing (Johnson 2002:89).

Other authors such as (Sternberg 2002; Fedynich and Bain 2011) view mentoring as part of the leader's role that has growth as its outcome. Ousey (2009: 175-184) describes the ideal mentor as a person who is familiar with the content to be taught, is passionate about the idea of helping another, and who will support, reflect with, encourage and respect the less experienced person during their clinical experience. Mentoring is commonly referred to as peer mentoring simple because a mentor is seen as a peer (Williams and Williams 2011:67). These authors describe a mentor as someone who is at the same level as the mentee, and with whom the mentee shares information, strategies, support and benefits. The same notion is shared by Ruben and Halperin (1996:25) when they describe mentoring as a supportive, protective, insightful, intentional, nurturing process fostering growth that eventually leads to wisdom. Johnson *et al.* (2002:89) also attest to this when they highlight that although the mentor is a guide who explains the system to a mentee but he/she is not in a position to champion the mentee. Instead, he/she is a sponsor who is less powerful than a patron in promoting and shaping the career of a mentee, a

patron who is influential and uses his or her power to help the mentee advance in his or her career (Johnson 2002:89).

Although the role of mentoring in nursing has been extensively researched, there is little research on peer mentoring of the critical care nursing student in the critical care environment and its relationship to their learning outcomes. Peer mentors create a more cooperative and collaborative learning system, as they are more understanding and have the ability to relate better to their mentees. A study conducted by Simms-Giddens, Helton and Hope (2010: 23-27) shows that the mentees were able to cooperate and accomplish much with their mentors, benefiting from each other's strengths and reconciling each other's weakness.

Benner, a nursing theorist, has proposed the 'novice to expert' theory, which emphasizes that professional development occurs in distinct stages and is best able to progress when the nurse is within a supportive environment that promotes his or her growth (Benner 1984: 20). Mentorship is about a relationship, not about techniques. It is about trust, integrity and honesty, and about the mentee's needs and wants (Simms-Giddens, Helton and Hope 2010: 23-27). Peer mentoring is about creative exploration of possibilities, not structuring predetermined systems and pathways. It is also about helping the mentee identify a well formed outcome so that the mentee can change their behaviour to produce new results and develop new skills where necessary to achieve their goals.

2.9 CHALLENGES OF PEER MENTORING

Several challenges have been experienced with peer mentoring. A few of these include:

- Role ambiguity and conflict;
- Lack of support and satisfaction;
- Lack of confidence in the mentors` ability to supervise their peer/ knowledge on process of teaching; and

- Creating an environment that is conducive to learning.

2.9.1 Role ambiguity and conflict

A number of studies show that the absence of a unified definition of a mentor's role, and lack of understanding of the specific goals and learning outcomes designated to critical care nursing students, pose a challenge and barrier to effective mentoring (Omansky 2010; Hurley and Snowden 2008). Mentors are faced with their primary responsibilities such as their own clinical workload, and hence a lack of time available to mentor effectively (Hurley and Snowden 2008:269-275). Clinical workload issues extend to the critical care nursing student, which poses a barrier with learning, and inadequate contact time with their mentor.

2.9.2 Lack of support and satisfaction

According to a study conducted by Nettleton and Bray (2007: 205-212), mentors verbalized inadequate support for their role from both health education institutions and the critical care units Occasionally a lack of satisfaction in the mentor role may be compounded by no recognition, respect or rewards for taking on the extra role (Omansky 2010; Nettleton and Bray 2007).

2.9.3 Importance of selecting an appropriate teaching method for the critical care nursing student

The ability to select an appropriate teaching method for the critical care nursing student is of absolute importance to be able to integrate theory and practice and hence bridge the gap. The mentor and mentee should mutually identify a learning approach as this proves to be the best method for facilitating reflective autonomous practitioners. The approach can be pedagogical which is teacher focussed or androgogical where the student and teacher treat each other as equals with the student taking responsibility for their own learning (Pritchard and Gidman 2012: 119-124). Further to this knowledge, the mentor needs to be well

versed and knowledgeable in the different learning strategies, such as deep learning and strategic learning.

2.9.4 Creating a conducive learning environment

In order for mentoring to be effective the mentor needs to create an environment conducive to learning, bearing in mind the critical care nursing student's needs and requirements (Ousey 2009: 175-184). An effective learning environment will involve the use of a multi-disciplinary team in the delivery of teaching and assessment of the teaching process, dedicated and committed staff who enable others to learn through a variety of processes and who have been prepared to undertake their roles as teachers and assessors (Jarvis and Gibson 1997: 11-12). This conducive learning environment is exactly what is required, however it is barely possible to attain this in a fast paced, highly technological advanced and an emotionally charged environment. The peer mentor also has his/her delegated workload that needs to be accomplished at the end of his/her shift, hence making it difficult to peer-mentor effectively.

2.10 BENEFITS OF PEER MENTORING

According to Gisi (2011: 20), peer mentoring rendered by the mentor is proven to be relevant to both the mentor and the mentee. The critical care nursing student comes into this speciality domain bringing with them inexperience, lack of personal confidence in their abilities, and in need of professional reassurance. Gisi (2011: 20), also states that for the mentor, who is now seen as the mature one in this mentor-mentee relationship, it offers him/her a chance to impart the knowledge gained through experience. Peer mentoring opens up the possibility of growth and supports gaining new skills which are essential for the on-going changing practice of nursing. A positive and nurturing environment is supported by peer mentoring which provides a sense of collaboration and support which leads to retention of skilled staff, so helping the organizational structure (Race and Skees, 2010: 163-174).

Placing the critical care nursing student in an environment where they feel comfortable to ask questions and are free to display an increased sense of worth sets up an ideal situation in which the student will have positive hands-on experience. This, according to Sims-Giddens, Helton and Hope (2010: 23-27) will also allow the student to apply concepts learnt in class, which will compliment theory and practice integration. Billings and Kowalski (2008: 490-491) have shown in their study that mentoring has helped the mentor as well to gain deeper insights into their discipline. By teaching others, peer mentors are able to improve their own knowledge and stay proficient in their embedded skills, learnt as juniors. The peer mentor gains intrinsic rewards as well as a feeling of fulfilment that they are contributing to others education and helping them succeed in such a challenging field of study (Dennison 2010: 340-342).

2.11 MENTORSHIP IN THE CRITICAL CARE UNIT

In the past, the critical care speciality has had the benefit of an enormous proportion of experienced nurses, however in the 21st century; it is not unusual for nurses commencing their employment within the critical care unit to have no experience of this speciality (Ihlenfeld 2005: 175-178). These inexperienced critical care nurses are faced with a variety of complex situations and conditions, of which many could be a first encounter. These nurses are faced with feelings of inadequacy and lack of confidence, and literature has shown that mentorship is effective to help them gain the confidence that is lacked (Dracup and Bryan-Brown 2004: 456-458).

Placement of critical care nursing students early in their training is supported by many nurse authors (Cochrane, Heron, and Lawlor 2008). This unique experience has shown to strengthen the link between theory and practice integration in a challenging environment. The critical care unit provides ample opportunity to observe and perform various skills, and the peer mentoring facilitates a supportive, non-threatening learning environment. The critical care students experience in this learning environment may have a profound impact on their learning whether positively or negatively. Experiences range from

integration of theory and practice, effective peer mentoring and constructive feedback (Gisi 2011: 13). Research has shown that the quality of nurse education depends largely on the quality of the clinical experience that the critical care nursing students receive in the clinical environment (Gisi 2011: 12).

Many new critical care nursing students often underestimate the workload that will be placed on them and tend to take on multiple roles during their education including family, work and personal health. The combined stress of these multiple roles often leads to frustration and attrition (Robinson and Niemer 2010: 286-289).

First experiences in a new clinical site like the critical care unit, fear of making mistakes, concerns about performing clinical skills and using hospital equipment, and lack of support from nursing personnel (Moscaritolo 2009: 17-23) are the most common causes of critical care nursing students' anxiety. Critical care nursing students also find it difficult to integrate theory with practice, that is, to close the gap between classroom activities and clinical. Anxiety can escalate if there is a theory gap, and the student is looked upon as being inconsistent. Some of the strategies that have been researched to help reduce this anxiety in critical care nursing students are counselling, faculty role modelling, developing positive student and staff relationships, and peer mentoring.

2.12 MENTOR AND MENTEE RELATIONSHIP

A relationship must be forged between mentor and mentee; both must work as a team and exhibit a willingness to go beyond what is already achieved. They must accept each other non-judgementally and commit to produce results. Just like any relationship, dissatisfaction and problems are common. Dissatisfaction may occur from a difference in goals, commitment or expectations, also from reluctance from the mentee to pursue his or her own development (Gisi 2011: 7).

Peer mentoring is a relationship between an experienced critical care nurse and an inexperienced one (Killeen, 2001:100). It is important that a supportive

relationship is established in order to assist in maturing the mentee and helping her achieve her full potential. According to Seekoe and Arries (2011:26), although peer mentoring take place formally or informally within an the nursing unit but the results are seen when mentoring is formalised and supported by the unit and/or institution with a purpose as stated by the institution It is based on this understanding that Fullerton (1996:30) highlights that each mentoring programme is different and is influenced by the context in which it occurs, the way it is organised, structured, the ideas and models that inform it and the teaching practices and the learning strategies it adopts. Mentoring has a dual function of assisting with both the professional socialisation and personal development (Truby, 2010: 65-69) of the critical care nursing students, and the facilitation of both educational and academic competencies of the students (Collins, *et al.* 1998:2).

Specific characteristics of a mentor which promote the mentoring experience include added knowledge, skills, positive attitudes, personal commitment and experience (Gisi 2011: 8). The mentor has to be a role model in the clinical practice; she/he must be able to give corrective feedback when needed. Mentors are expected to adjust strategy to meet changing situations in the critical care unit. They must be effective in clarifying and validating perceptions. The mentor must acknowledge the uniqueness of each mentee, each relationship and each situation, giving credit when it is due by emphasising the positive. This serves as a motivation directly and indirectly informing the mentee that she/he is on the correct path, hence boosting their morale and encouraging them to persevere. The mentee agrees to listen to mentor interpretations, and give and receive information and feedback.

2.13 CONCLUSION

A review of the literature in this chapter has acknowledged that the critical care unit is one of the most stressful of nursing specialities. There are also increasing demands within the health organization with reference to increasing workloads and limited resources, and the retention of skilled nurses. The literature

reviewed provides extensive support for peer mentoring. However, there is no specific research on peer mentoring and the critical care nursing students' attainment of learning outcomes, hence the direction of this study. The next chapter will discuss the research methodology used to obtain and analyse the findings of the research.

CHAPTER 3 : RESEARCH METHODOLOGY

3.1 INTRODUCTION

Chapter 3 describes and discusses the research design and method, the study population, sample and sampling technique, data collection and analysis methods. The chapter also presents the theoretical framework that was used to guide the study and how research rigor and ethical consideration was ensured.

3.2 RESEARCH DESIGN

Grove, Burns and Gray (2013: 692) define a research design as the structural framework of a study; the blueprint for conducting a study. According to Grove, Burns and Gray (2013: 692), any research study requires a plan of action and this plan is referred to as a research design. The research design ensures that the researcher strives for objectivity and that the approach to the knowledge is systematic giving the researcher greater control and hence improving the validity of the study. In the current study, a qualitative explorative research design was used to explore the influence of peer mentoring on critical care nursing students' learning outcomes.

3.2.1 Qualitative design

Although many definitions of qualitative research exist, Grove, Burns and Gray (2013) state that qualitative research aims to investigate and comprehend the meaning people give to a phenomena and how they make sense of that in their own understanding and world. Qualitative research is effective in obtaining culturally specific information about the values, opinions, behaviors, and social contexts of particular populations. A qualitative, exploratory design was used to explore the influence of peer mentoring on the learning outcome of critical care nursing students.

The strength of qualitative research is its ability to provide descriptions of how people experience a given research issue and to provide information about the 'human' side of an issue. Qualitative methods are also effective in identifying intangible factors such as social norms, socioeconomic status, gender roles, ethnicity, and religion. This type of data can be acquired by in-depth interviews (Grove, Burns and Gray 2013: 271). Qualitative designs are naturalistic in nature in that they seek to understand phenomena in context or real world settings, and, in general, the researcher does not attempt to manipulate the phenomenon of interest (Polit and Beck 2008:17). The current study took place in a real world setting and in the natural setting where the participant worked. The researcher did not attempt to manipulate the phenomenon of interest. Participants presented their experiences in words.

3.2.2 Exploratory study

An explorative qualitative research is conducted to address a problem in need of a solution, with a specific population (Grove, Burns and Gray 2013: 694). A study of this nature is designed to increase the knowledge of a particular field of study (Grove, Burns and Gray 2013: 694). In the current study, the researcher explored the influence of peer mentoring on the learning outcomes of critical care nursing students by asking participants to describe how peer mentoring influenced their learning outcomes in the critical care unit, their experiences regarding mentorship and their perceptions regarding mentorship in the critical care unit.

3.3 THEORETICAL FRAMEWORK THAT GUIDED THE STUDY

Benner's Novice to Expert Model was used to guide the study. Benner introduced the concept that expert nurses develop skills and understanding of patient care gradually over time through the medium of a sound educational base as well as from numerous experiences (Benner 1984: 4). In her model Benner describes five stages that the nurse progresses through from the time she/he enters the profession and or a new situation until she/he reaches full

potential or expert status. These stages include novice, advanced beginner, competent, proficient and expert stage.

3.3.1 Stage 1: Novice or Beginner

The novice or beginner basically has no experience in the situation/environment they are expected to perform. The beginner lacks confidence to demonstrate safe competent practice, requiring continuous verbal and physical direction. Performance and productivity is delayed and the novice lacks autonomy (Benner 1984: 20). With reference to the current study, at the beginning of training the critical care nursing student is seen as the novice/ beginner who has minimal to nil experience in this technologically advanced fast paced clinical environment. The novice or beginner lacks confidence to demonstrate safe competent, therapeutic and holistic care to critically ill patients. The critical care nursing student in the initial stage of their training requires continuous verbal and physical cues to perform at an acceptable level in this critical environment. The student in this novice stage lacks autonomy and productivity, which results in decreased job performance. Learning has to take place in a non-threatening environment and in a non-judgemental manner. Peer mentoring and guidance is commenced in this stage.

3.3.2 Stage 2: Advanced beginner

In this stage the advanced beginner exhibits acceptable performance, because she/he now has prior experience in actual live situations. The nurse is efficient and skilful in parts of their scope of practice, requiring intermittent supportive measures; evidence of knowledge development is present Benner (1984: 24). At this stage, the critical care nursing student is expected to show a positive outlook toward the mentoring process. The relationship between the mentee and mentor is effective as learning is proven to take place with intermittent supportive measures being utilized and knowledge acquisition is in progress. At this stage the mentee is able to demonstrate acceptable performance.

3.3.3 Stage 3: Competent

Competence is evident from a nurse who has been in the job profile or similar situations for about 2-3 years (Benner 1984: 25). The nurse demonstrates efficiency, shows confidence in her/his actions, is accountable and responsible (Benner 1984: 26). Care rendered is completed efficiently and timeously without supporting structures. The nurse is now in the process of being totally competent, having been mentored effectively. At this stage, the critical care unit is not an environment that poses a threat to the student anymore, now having the theoretical knowledge to back up her/his clinical exposure and confidence increases as anxiety dwindles in this stressful, fast paced environment. The student should be requiring lesser supervision and support from the mentor.

3.3.4 Stage 4: Proficient

The proficient critical care nurse looks at situations holistically, in their entity instead of individual parts. She/he learns from experience what situations to anticipate and how to react effectively in these situations. The student can recognize unforeseen situations; decision making skills are enhanced. Theory is integrated with practice. The nurse is becoming an independent practitioner with dependant and interdependent functions all within her/his scope of practice (Benner 1984: 28). It is expected that with the assistance of peer mentoring the critical care nursing student should be able to progress to the stage where she/he no longer requires extensive supervision. Instead at this stage the student starts to demonstrate the qualities of independence.

The expert nurse is able to zone in on situations without procrastination and render effective, fruitful solutions and alternative diagnoses. The expert is found to operate from deep understanding and handle situations with accountability and responsibility (Benner 1984: 32). In this last stage, we see the critical care nursing student, practicing within her/his scope of practice, integrating theory and practice, to be a competent and independent healthcare professional with very little or no mentoring required at all.

Where the novice is afforded the best opportunity to progress through these stages, figure 3.2) the need for peer mentoring is greater at the beginning and decreases as the novices progresses through the various stages until at the end the critical care nurse who has now become an expert require very little or no mentoring at all.
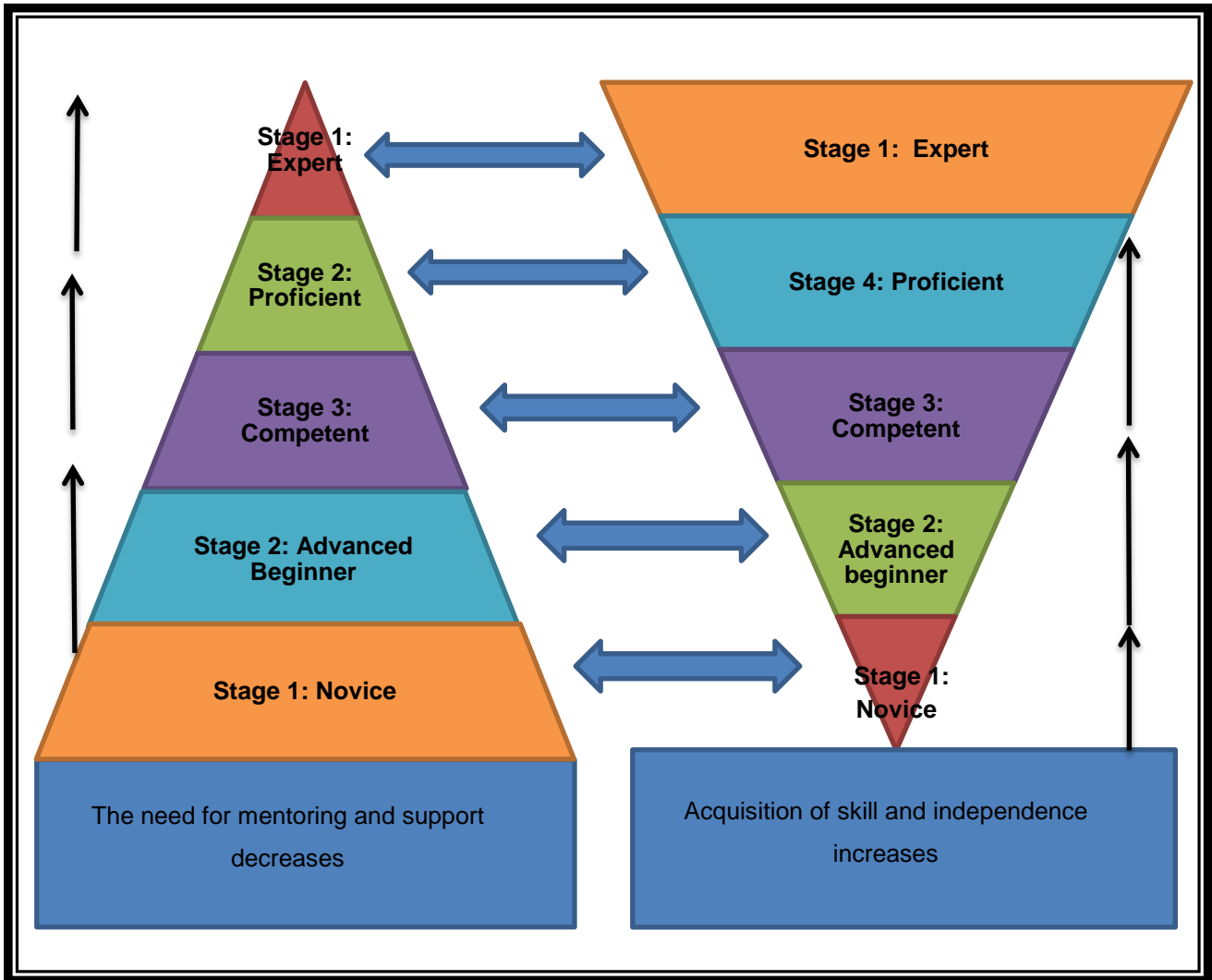
Figure 3.1: The need for Mentoring versus acquisition of skill and independence according to Benner's novice to expert model

3.4 APPLICATION OF BENNER'S NOVICE TO EXPERT MODEL

As detailed in the previous section, Benner (1984) describes in her model the various stages that a nurse entering the profession goes through in order to

reach her/his full potential and independence in the nursing profession or nursing environment. Similarly the critical health care nursing student entering the critical health care unit goes through the same steps in order for her/him to reach her/his full potential and independence in the critical care nursing profession. The critical health care nurse enters the critical care unit as a novice and is expected to exit as an expert in the field of critical care nursing. Through peer mentoring the critical care nurse is being guided to transit through the various steps of the Novice to Expert Model requiring a closer and detailed mentoring in the beginning then being gradually released and allowed more independent practice as she/he becomes more experienced.

The critical care nursing students in the current study, who had already had been in the course for at least 3 months, described their experiences regarding peer mentoring in the critical care unit and the influence that peer mentoring had on their learning outcomes and their perceptions regarding mentorship in the critical care unit. The researcher used this information to gain deeper understanding (explore) the influence of peer mentoring on critical care nursing students' learning outcomes in critical care units which was the aim of the study.

3.5 STUDY SETTING

This study was conducted on critical care nursing students that were working in critical care units in both the private and the public healthcare sector in KZN. A total of seven hospitals that are providing critical care and in which the critical care nursing students are being place for practical learning were included; five of which were private hospitals and two were public hospitals.   The private healthcare sector hospitals were in the Life Healthcare group in KZN and the public health care sector hospitals were the public hospitals in the eThekwini district under the control of KZN Department of Health. The critical care units are the health units within the hospital that admit patients who require critical care from the medical and surgical disciplines because of the seriousness of their health condition. Depending on the regulatory body and the clinical outcomes to be attained, the students are rotated and allocated per discipline. The critical

care nursing student has to attain 1200 hours in their rotation. For the purpose of this study, the private healthcare sector is referred to as Health Sector A, the public sector as Health Sector B in order to maintain confidentiality and anonymity. A total of 10 participants were interviewed; four from Health Sector A and six from Health Sector B.

3.6 SAMPLING PROCESS

The sampling process was conducted in two phases as follows:
- Phase 1: Sampling of hospitals.
- Phase 2: Sampling of critical care nursing students.

3.6.1 Phase 1: Sampling of hospitals

Purposive sampling consists of selecting participants who have defined or specific characteristics that will enhance the data needed for the study (Grove, Burns and Gray 2013:365). The purposive sampling method was used to select the hospitals that were included in the study.

Inclusion criteria
- All hospitals with critical care nursing units and that were used to place critical care nursing students.

Exclusion criteria
- All the hospitals that did not have critical care nursing units and were not used for placement of critical care nursing students.

3.6.2 Phase 2: Sampling of critical care nursing students

Once again the purposive sampling method was used to select the participants in this phase. All consenting critical care nursing students who were employed in the critical care units of the participating hospital and who met the selection criteria were selected (Grove, Burns and Gray (2013: 367) agrees that sampling

in a qualitative study is usually flexible and continues until no new themes emerge from the data collection process. This is referred to as data saturation. In the context of this study, the researcher interviewed participants until data saturation was reached.

Inclusion criteria

- Critical care nursing students who were already in the course leading to the registration for a Diploma in Medical and Surgical nursing in critical care, six months

Exclusion criteria

- Critical care nursing students who were in the course leading to the registration for a Diploma in Medical and Surgical nursing in critical care for less than six months were excluded because these students may not have had sufficient exposure to the critical care unit and/or peer mentoring for them to have experienced or attained the various stages.
  - All other categories of nursing staff working in the critical care units.
  - All the nursing students who were placed in the critical care environment but not studying critical care nursing science.

3.7 PRE-TESTING OF THE DATA COLLECTION TOOLS

In order to have the practical aspects of any study tested, a researcher has to conduct a pre-test. This is usually accomplished by including a few participants that meet the inclusion criteria, but they do not form part of the sample, and the data collected in this instance is not included in the study. (Brink, Van der Walt and Van Rensberg 2012: 175). A pretest was conducted with one critical care nursing student from one of the seven hospitals. The critical care nursing student that participated in the pre-testing of data collection tools was not included in the main study. The results revealed that the interviewing skills of the researcher and the data collection approach were acceptable. No changes were made to the data collection tool after the pre-test was completed.

3.8 DATA COLLECTION PROCESS

Data was collected using individual face-to-face in-depth semi-structured interviews with the participants. All the participants who agreed to take part in the study had to sign an informed consent form. Informed consent included an explanation of the handling of all interview materials, confidentiality issues and anonymity procedures for participants, and the option to withdraw at any time. Once informed consent was obtained, all interviews were scheduled for a time that was convenient for each participant and also for the health service. A private room was organised at each study site to use for the interviews in order to ensure that the interviews were conducted in a suitable environment that would facilitate the participants talking freely.

The in-depth interviews were conducted by the researcher, with the use of an interview guide in English. The researcher had no personal relationship with the participants. The interview guide contained a demographic section as well as a central question to focus the discussion (Appendix 6). The initial question that was asked was "What influence does peer mentoring have on the critical care nursing students' learning outcomes in the critical care unit." Probing questions were then used to elicit more information from the participants depending on their responses. Probing is eliciting more useful information from a participant in an interview than was volunteered in the first reply with the goal being to ask questions that give the participant an opportunity to provide rich, detailed information about the phenomenon under study (Polit and Beck 2008: 394). The aim of the interviews was to understand the experiences and the perceptions of the critical care nursing students with reference to peer mentoring and their learning outcomes. Interviews were scheduled for 30 to 45 minutes for each participant. The interviews were recorded by audiotape to provide an unobtrusive and accurate record of the participant's comments. The number of interviews was guided by data saturation. This was reached after six interviews were conducted but the researcher continued with four more interviews in order to confirm data saturation. A total of ten interviews were conducted.

3.9 DATA ANALYSIS

Data was analysed using thematic analysis. Each interview session was analysed on the same day as the interview, before conducting the next interview, in order to monitor data saturation. The researcher moved from one study site to the next for the subsequent interview in order to ensure that participants from all seven hospitals were interviewed. Qualitative data was transcribed from the audio recorder into a written format and was compared and read against the field notes for clarity. The transcribed interviews were captured onto a master file through Microsoft Word. Tesch's open coding approach was used to analyse the data, which involves eight steps (Creswell 2009: 185-187). Tesch's eight steps were applied as follows (Tesch 1992: 141):

- Reading through all transcripts to get a general impression of the collected data.
- Writing in the margin thoughts that emerge from the data.
- Making a list of all topics. Similar topics were clustered together. These topics were preliminarily organized as major topics, unique topics and leftover topics.
- Abbreviated topics as codes were written next to the corresponding segments of the data. Any other topics or codes that emerged were also written next to the appropriate segment of the text.
- The most descriptive wording for the topics were used and turned into sub-categories.
- Grouping together of the related topics and emerging list of categories.
- Preliminary analysis of data was accomplished by assembling data that belonged to each category from which themes emerged.
- Existing data was recorded.

3.10 RESEARCH RIGOUR AND TRUSTWORTHINESS

According to Grove, Burns and Gray (2013: 36), rigour is the striving for excellence in research and it involves discipline, meticulous adherence to detail, and strict accuracy. In qualitative research, the researcher's self-understanding

is important, because qualitative research is an interactive process shaped by the researcher's gender, social class and race (Creswell 2009; Marshall and Rossman 2011).

Research that is inaccurate or holds a biased viewpoint cannot be of any benefit to nursing practice. Due to the nature of this study being a qualitative one, methods of enhancing trustworthiness were utilized and the following four principles outlined by Lincoln and Guba's strategies of credibility, transferability, dependability and confirmability were applied (Lincoln and Guba 1985). Trustworthiness in qualitative research is often questioned by positivists saying that its concepts of validity and reliability cannot be addressed.

3.10.1 Credibility

Credibility is an important aspect of trustworthiness, it alludes to confidence in the truth of the data, and the interpretation thereof (Brink, van der Walt and van Rensburg 2012: 172). This was achieved through the accuracy of the description of the parameters of the study (who, where and when). Participants were purposively sampled and information was collected until data saturation was achieved.

3.10.2 Dependability

Dependability refers to evidence that is consistent and stable (Polit and Beck 2008: 196). In this study, this was achieved by a description of the method of data collection, data analysis and interpretation. In order to enhance consistency, the researcher conducted a pre-test with one participant prior to the study. This participant did not participate in the main study.

3.10.3 Transferability

Transferability refers to the generalization of the data, or the extent to which this data can be applied to other settings or sample populations (Polit and Beck

2008: 202). Two strategies to enhance transferability in this study were: data saturation, whereby additional participants were not providing new information, meaning that emerging themes became repetitive; and purposive sampling, where participants were purposefully selected in terms of the knowledge of the phenomenon under investigation (Brink, van der Walt and van Rensburg 2012: 171-173).

3.10.4 Confirmability

Confirmability refers to accurate reporting of the real meaning of data as provided by the participants (Brink, van der Walt and van Rensburg 2012: 171-173). Within the context of this study, to ensure that no bias influences the results, tape recordings were utilized, and these were preserved for further auditing. Thereby the truthful perception of the participants would be reflected accurately.

3.11 ETHICAL CONSIDERATIONS

Before commencement of the study, ethical clearance was obtained from the Durban University of Technology Faculty Research Committee (Appendix 1). Written consent was requested from the Nursing Service Manager of the participating hospitals (Appendices 4a and 4b) and KZN Department of Health (Appendix 2a).The study was only commenced after the KZN Department of Health and the managers for the participating hospitals had provided approval that the study be conducted in their facilities (Appendices 2b, 3b and 4b).

The researcher personally approached and addressed the critical care nursing students who were already in the prescribed course for six months. All the participants made an informed, voluntary decision to participate in the study. Written consent was obtained from all the participants who agreed to take part in the study (Appendix 5). The nature of the study, the right to refuse to participate, the risks as well as the benefits of the study were fully described to all the prospective participants and were also specified in the information letters.

Participants were not obligated to be part in the study, and they were informed that they could withdraw from the study at any stage during the research process if they wished to do so. Information letters were also given to the prospective participants to read at their own time in order to gain more clarity about the study.

The interviews were coded so as to protect the identity of the participants. The researcher gained no monetary remuneration for conducting the study. Documents will be stored for 5 years as per university policy, thereafter shredded.

3.11.1 Beneficence

Polit and Beck (2008: 170) maintain that beneficence basically stresses that the researcher has to minimize any harm to subjects or society as a whole. Research findings should benefit the participants or individuals that are part of a study. The aim in this study was to ensure that the findings create awareness for the need for on-going critical care nursing student support and education in the area of peer mentoring and the importance of informed policy making on peer mentoring in a critical care unit. One of the consequences of participating in a study of this nature was the sensitivity of the concepts discussed under the topic which is peer mentoring. For example, participants were asked questions about their personal views and weaknesses. The use of probing questions by the researcher in order to get the participant to elaborate on certain aspects may have resulted in certain participants becoming anxious on occasion.

3.11.2 Respect for human dignity

This principle involves the right to self-determination and the right to full disclosure (Polit and Beck 2008: 171). In this study, this meant that participants could choose to participate or not. They had the right to ask questions, to refuse to give information or to withdraw from the study at any time. None of the participants were asked to perform any acts or make statements which would cause discomfort, compromise them, diminish their self-esteem or cause them to

experience embarrassment. There was also no risk of damage to their financial or social position. Throughout the study participants were assured that the data they provided would be kept in strictest confidence. Neither the names of the hospitals or the participants were disclosed. Interview data will be kept for five years and thereafter destroyed.

3.12 CONCLUSION

This chapter described and discussed the research methodology used in this study .The next chapter will therefore present the results of the study in question and highlight the common themes as they were identified from participants' responses and summarized by the researcher. Evidence will be presented to back up the generated themes and will be underpinned by quotes from the transcribed data of the actual interviews.

CHAPTER 4 : PRESENTATION OF THE RESULTS

4.1 INTRODUCTION

Chapter 4 presents the results of the study. The study was conducted by means of in-depth interviews with the participants. The aim of the study was to explore the influence of peer mentoring on critical care nursing students' learning outcomes. The following research question had to be answered in an attempt to achieve this aim:

- What influence did peer mentoring have on the critical care nursing students' learning outcomes in the critical care unit?
- What were the experiences of critical care nursing students regarding mentorship in the critical care unit?
- What were the perceptions of critical care nursing students regarding mentorship in the critical care unit?

The researcher took five days to listen to the audio recordings to familiarize herself with the content before data transcription commenced. After listening to the audio recordings, the data was transcribed from the audio recorder into a written format and analysed using Tesch's eight steps open coding approach to data analysis (Tesch 1992: 141).

4.2 DEMOGRAPHIC DATA OF THE PARTICIPANTS

A total of 10 participants were interviewed; four from Health Sector A and six from Health Sector B. All the 10 participants were females, four were within the 26-30 age groups, and six were within the 31years and above age group. With regards to duration of their experience in the critical care unit, all 10 participants had between 5-10 years of experience in the critical care unit. A total of five of the ten participants were African three were Coloured and two were Asian. Table 4.1 presents demographic data of the participants that were interviewed.

Table 4.1: Demographic data of the interviewed participants

Category	Characteristics	Frequency	Health sector A	Health sector B
Gender	Female	10	4	6
Age	26-30	4	3	1
	31 and above	6	4	2
Race	African	5	3	2
	Coloured	3	2	1
	Asian	2	1	1
Years of experience	5-10	10	4	6

4.3 MAJOR THEMES

The three major themes that emerged were:

- Major Theme 1: Benefits of peer mentoring.
- Major Theme 2: Supervision of critical nursing students
- Major Theme 3: Experiences in the critical care units

4.4 OVERVIEW OF THEMES AND SUB-THEMES

Several sub-themes aligned to each major theme emerged. In the presentation of results, the themes and sub-themes are supported with verbatim statements from the participants in order to substantiate relevance in the results. The three themes and sub-themes are presented in Table 4.2.

Table 4.2: Overview of the themes and the sub-themes

THEMES AND SUB-THEMES	
Theme 1	**Benefits of peer mentoring**
Sub-theme 1.1	Peer mentoring compliments students competence level
Sub-theme 1.2	Autonomy and work independence
Sub-theme 1.3	Personal and professional growth
Sub-theme 1.4	Increased self-esteem and confidence
Theme 2	**Supervision of critical nursing students**
Sub-theme 2.1	Shortage of mentors to do supervision
Sub-theme 2.2	Workload and other responsibilities for the mentors
Sub-theme 2.3	Reluctance of senior students to mentor the junior students
Sub-theme 2.4	Reluctance of peer mentors to share information
Theme 3	**Experiences in the critical care setting**
Sub-theme 3.1	Differences between critical care nursing units based on where students are allocated
Sub-theme 3.2	Structuring of the allocation for each critical care nursing student to the critical health care units

4.4.1 Major Theme 1: Benefits of peer mentoring

During the interviews the majority of the participants highlighted the importance and the benefit of peer mentoring in their learning, especially in the critical care units. Four sub-themes emerged all of which according to the participants were the benefits of peer mentoring. These included that peer mentoring:

- Compliments students' competence level.
- Results in autonomy and work independence.
- Assures personal and professional growth of the critical care nursing students.
- Increases self-esteem and confidence of the critical care nursing students.

4.4.1.1 Sub- theme1.1: Complimenting students' competence level

The participants stated that peer mentoring in the critical care unit is particularly important due to the nature of nursing services provided in these units and especially during the transition from one healthcare institution to another. According to the participants, receiving peer mentoring impacted positively on their clinical competence and enabled them to attain some of their learning outcomes. They stated that with peer mentoring they feel confident, and are able to function effectively as part of the team. This was evident in following statements from some of the participants:

"…. But, when we get peer mentoring, it really assists us because there is a lot of things we don't understand…." (Participant 2, Health Sector B)

"…. the peer mentors give us the information that we need, and they try to explain what is to be done in the unit, and what we expected to do … and with their guidance we gradually become competent …." (Participant 1, Health Sector A)

"Sometimes you feel you are on track, but during change over when you get to a new unit it is like you are back into square one, worse if there is no one to guide and mentor you." (Participant 4, Health Sector A)

4.4.1.2 Sub-theme 1.2: Autonomy and work independency

Some participants indicated that being mentored in the critical care unit has helped them attain autonomy so that they are able to work independently in a confident manner. They want to be part of the critical care nursing team and be able to integrate theory with practice. This is evident in the following direct quotations:

"… Critical care nursing students develop a sense of independence, after the peer mentor has worked with them …. The student learns how to integrate theory and practice." (Participant 6, Health Sector B)

"We are all looking forward to becoming expert critical care nurses one day … I think peer mentoring is very good and it should be encouraged. It is the best way to ensure that the students develop autonomy and work independency…." (Participant 1, Health Sector A)

4.4.1.3 Sub-theme 1.3: Personal and professional growth

Participants stated that as much as the critical care nursing programme is a challenging one, they are in the process of development. Peer mentoring assisted them to grow professionally and personally. This was evident in the following statements by some of the participants:

"…. At the beginning I did not know what I was doing, but now with peer mentoring I have grown in my profession and became a stronger person … as I also have a lot of family issues …." (Participant 6, Health Sector B)

".... At the beginning I was very nervous and with the assistance of people that supervise us I have grown professionally and have developed some confidence in performing my duties." (Participant 3, Health Sector A)

4.4.1.4 Sub-theme 1.4: Increased self-esteem and confidence

Participants verbalized that due to peer mentoring, they are less afraid of the critical care environment; they feel confident within their training process. This was highlighted in the following statements by the participants:

".... The peer mentoring makes me confident and I am not afraid to do my work … I am free to ask questions." (Participant 3, Health Sector A)

".... I do not think I would have managed without the support from my mentors, probable I would have left training. With their help I have developed self-esteem and confidence, now I can stand on my own and I am sure I would make a good nurse when I qualify." (Participant 1, Health Sector A)

4.4.2 Major theme 2: Supervision of the critical care nursing students

Some of the study participants were concerned about the supervision that was offered to them during practical. They stated that they were not supervised adequately either because there were no trained skilled staff to do supervision or the mentors were not available to supervise them as they had their own workload and responsibilities to carry out. Poor supervision was also associated by participants with reluctance of peer mentors (senior students) to supervise the juniors.

4.4.2.1 Sub-theme 2.1: Shortage of trained skilled staff

Due to the shortage of trained skilled staff, critical care nursing students are expected to work as skilled trained staff in the critical care unit, without supervision. This was evident in the following comments by some of the participants:

"…. Most of the time there is no one in the unit but just us as students. We are expected to function as if we are already critical care specialists. We are treated just like critical care sisters; we're expected to do the work of the critical care sisters…." (Participant 2, Health Sector B)

"…. Most of the staff in the unit are the students with just one or two trained staff, it is really impossible for them to be able to give us enough attention because they need to prioritise the patients…." (Participant 5, Health Sector B)

"….. *The problem is there are very few trained staff in the critical care units and so we do not even worry about supervision and mentoring, our priority is taking care of the patients so we just work and pray all is well…." (*Participant 4, Health Sector A)

4.4.2.2 Sub-theme 2.2: Workload and responsibilities for the mentors

In this study it was well noted that students have encountered challenges with regard to effective peer mentoring. Some of the participants verbalized that they were on their own without a mentor to supervise; in most cases the mentor had her own workload and responsibilities. This is evident in the following excerpts:

"….. So my heart really goes out for the peer mentors; where they have their own patients and their own workload and responsibilities. While they have us to help they still have to worry about the patients and they have to prioritise

the patients over us, it is their core responsibility." (Participant 5, Health Sector B)

"…. Most of the time we are neglected because the same person that is allocated to do peer mentoring has to attend to patients at the same time …." (Participant 2, Health Sector B)

4.4.2.3 Sub-theme 3: Reluctance to mentor students

The participants also mentioned that the trained registered nurses in the critical care unit were of the impression that it was not their responsibility to teach the critical care nursing students, but that of the critical care nurse educators. This is evident in the following comments:

"…. We as student are just the workforce, there is nobody to mentor or supervise you, even the registered nurses and doctors they also don't make time to teach us, they feel it's not their duty to teach anyway." (Participant 2, Health Sector B)

"…..The registered nurses in the critical care units are not keen to supervise us they say they are not tutors and they do not get paid for student supervision…." (Participant 3, Health Sector A)

"….Sometimes you wonder whose duty it is to mentor us in the wards because the registered nurses in the wards they always argue that it is not their duty whilst on the other hand our tutors are also not willing to accompany us … perhaps the department should employ people that they are going to pay like preceptors or clinical facilitators for the critical care nurses…." (Participant 1, Health Sector A)

4.4.2.4 Sub-theme 4: Reluctance to share information with students

The participants further reported that the experienced critical care nurses acting as peer mentors were reluctant to share information with them which further impacted negatively on their attainment of their learning outcomes. Their time management was affected as they needed to consult literature to try and understand clinical processes. This is supported by the following comments:

"…. I would expect that seniors guide and support us and help us to work through the cases allocated to us but most of the time they hide their information and are not willing to share it with us…." (Participant 3, Health Sector A)

'….Ai for now it's difficult because some of the groups especially those senior to us do not like to share the more information with us, sometimes even your own a group mates … some just keep whatever they got for themselves…. You have to take time to look on the internet for more information that you need especially for the presentations … which takes a lot of time." (Participant 1, Health Sector A)

"… Perhaps learning will be much easier and faster if our seniors, because they already have the information, could be willing to work with us. Not that we want to be spoon fed but at least to give us ideas as to what we are expected to do then we can build on that and find our way through." (Participant 2, Health Sector B)

4.4.3 Major theme 3: Experiences in the critical care setting

The participants described their various experiences in the critical care nursing unit, some experiences enhancing their learning some hindering their learning. The two sub-themes that emerged included, a) differences between health institutions where critical care nursing students were allocated and b) how the allocation schedule for each critical care nursing student was structured. While

some participants described these two elements as enhancing their learning others described the very same elements as hindering progress in their learning.

4.4.3.1 Sub-theme 3.1: Differences between critical care nursing units based on where students are allocated

The participants stated that the critical care nursing students are placed in different critical care units in different health care institutions. The critical care units function differently based on size, equipment available and type of patients admitted. The participants stated that it is sometimes difficult to adjust when you are moved from the one unit to the next as equipment and procedures are different especially in the absence of peer mentoring and supervision. The following statements support these comments by the participants:

"…. *Sometimes things are unfamiliar even if you have worked in the critical care unit for some time because the units differ so when you are moved to the new unit it is like you are a new student. In some unit they assist you but in others you are thrown into the deep end…."* (Participant 5, Health Sector B)

'…. *Err ... for me, I am from a smaller hospital, and have to learn new things like the machines and it is very difficult when there is no clinical support…."* (Participant 3, Health Sector A)

"…. *What is good is that the critical care units are not the same, this allows us an opportunity to start small while you are allocated in a smaller unit with less ill patients and less complicated equipment. By the time you are moved to the more complex unit at least you have been guided and mentored to work in a lesser complicated environment. Especially because the mentors are usually very busy to attend to us and you are left to find your own way through…."* (Participant 4, Health Sector A)

4.4.3.2 Sub-theme 3.2: Structuring of the allocation schedule for each critical care nursing student

The participants indicated that due to the nature, size and organisation of critical care units in different institutions, transition from a critical care from one hospital to the one in the other was sometimes not easy. Where the units are smaller, with lesser ill patients, there is not much exposure to critical care nursing. This creates a problem when a student is subsequently allocated to a bigger unit with more ill patients. The mentors recognise the student as being more experienced in training and do not provide mentoring. This is supported by the following comments from some of the participants:

"…. It is much better if you are made to start in a smaller and less busy unit then you are gradually moved to the more complex units as this will allow you to learn a more comfortable and safer way. Yet our teachers do not consider this they just put you wherever there is space available irrespective of your experience, it is so unfair especially because we do not get adequate support and guidance from our mentors." (Participant 1, Health Sector A).

"…. What assisted me was the way my allocation was structured. In the beginning while I was still new I was allocated to work in a smaller unit and now that I am more senior I am made to work in bigger institution. This also eases the burden on my mentors because at least I am able to correlate theory with practice." (Participant 3, Health Sector A)

"…. It is how allocation is done that compounds our problem, our teacher know there are huge problems with mentors so at least they should be very careful in how they structure the allocation. This will at least assist us and ease the burden on the mentors otherwise they become irritable with us…." (Participant 6, Health Sector B)

"…. basically we don't have critical care unit … we have err … high care unit … and me I only have neonatal critical care experience. All my training I have

just been allocated in these small units so I cannot say I know critical care nursing." (Participant 3, Health Sector A)

4.5 CONCLUSION

In this chapter, the researcher was able to analyse the information obtained from the interviews with the participants so that the themes could be identified. Table 4.1 presents the summary of the themes and sub-themes. The three themes that emerged from the interviews were: Critical care nursing students' experiences of being peer mentored in the critical care unit, Critical care nursing students' experiences of being mentored by trained skilled staff and Critical care nursing students' experiences regarding peer mentoring in different health care institutions.

CHAPTER 5 : DISCUSSION OF THE RESULTS

5.1 INTRODUCTION

In the previous chapter, the research results were presented. Chapter 5 will focus on the discussion of the results.

5.2 DISCUSSION OF RESULTS

Benner's Novice to Expert Model (1984) which has been used as a conceptual framework to guide the study, as well as the themes from the analysis of the interviews was used to guide the discussion of results. The aim of this study was to explore the influence of peer mentoring on critical care nursing students' learning outcomes in critical care units in KZN. Three research questions had to be answered in an attempt to achieve this aim. These included the following:

- What influence does peer mentoring have on the critical care nursing students' learning outcomes in the critical care unit?
- What are the experiences of critical care nursing students regarding mentorship in the critical care unit?
- What are the perceptions of critical care nursing students regarding mentorship in the critical care unit?

The discussion of results was also based on and guided by these three research questions.

5.2.1 Influence of peer mentoring on the critical care nursing students' learning outcomes in the critical care unit

Several positive influences of peer mentoring on students' learning outcomes in the critical care unit were described by participants. The benefit of peer mentoring was the first major theme to emerge from the interviews. The benefits that were highlighted by the participants included complimenting students'

competence level, developing autonomy and work independence, personal and professional growth and increased self-esteem and confidence.

5.2.1.1 Peer mentoring compliments students' competence level

Critical care nursing students are overwhelmed by the roles and responsibilities required when working in the critical care unit (Proulx and Bourcier, 2008: 44-53). Peer mentors are in a position to help the mentee in this transition period. Providing effective feedback to the mentee is of vital importance in development of their competence levels. Mentors need to provide positive specific and constructive feedback. This type of feedback enhances a good learning environment and supports the psychological state of the mentee. Feedback that is punitive will have a negative impact on the psychological state of the mentee and this will hinder their ability to progress. According to Luhanga *et al.* (2010: 4), the competence achieved by student nurses from mentoring enables them to think critically and perform clinical skills efficiently.

5.2.1.2 Autonomy and work independence

Orland-Barak and Hasin, (2009: 433) emphasize that it is the mentor's responsibility to support the mentee in becoming autonomous in life. Mentors also need to support the mentees emotionally and this enhances their self-confidence. The mentor as a facilitator of learning to the mentee is the cornerstone of effective critical care nursing. Mentors set expectations and provide the mentees with support in working towards becoming an independent critical care nurse with autonomy. A study conducted by Saver (2009: 84-89) utilizes Benner`s novice to expert stages of development to evaluate competency development in nurses.

5.2.1.3 Personal and professional growth

Mentors creating a supportive and receptive environment enable students to air and address their anxieties (Pritchard and Gidman 2012: 119-124). Anxiety

might be brought about through fear of making mistakes and lack of support from nursing personnel. A randomized study done by(Kim *et al* .2013:e46) confirmed the effectiveness of mentoring with reference to lowering of anxiety and improvement of academic performance, and satisfaction of nursing as a career Reflective learning is an effective tool in supporting peer mentorship. This allows the student an opportunity to reflect on past experiences and to learn from them before moving forward (Pritchard and Gidman 2012; Carr, Heggarty and Carr 2010). Professional and personal growth is derived from reflective learning in a non-threatening structured learning environment, with a one on one teaching approach supported by an individualized learning process (Warren 2010: 1364-1367). Students learn leadership attributes through observing those displayed by mentors; these attributes include communication skills, problem solving, and decision making strategies (Ousey, 2009; Warren 2010). Research has shown that the experience of been mentored instils values and qualities in nursing students (Pritchard and Gidman, 2012: 119-124).

5.2.1.4 Increased self-esteem and confidence

Student nurses need to experience a sense of belonging within the nursing team, to ensure that their self-image, confidence and motivation is boosted (Casey and Clark 2011: 934). Critical care nursing students perceive good mentoring as having a positive impact in building their self-confidence, and this enables them to be a competent critical care nurse within the critical care unit (Kelly and Ahern, 2009: 916). Studies have shown that mentors support students with difficulties encountered within the clinical environment, and this increases their self-esteem and helps them to be socialized into the clinical environment (Bulut *et al.* 2010: 756-762). Mentors play an important role in helping the student to be accepted and supported in the clinical setting which influences the student's ability and motivation to engage in clinical learning opportunities (Pritchard and Gidman 2012: 119-124). Socialization of the mentee into the clinical environment is an area of importance, as the work environment plays a major role in the mentees competence and confidence levels.

5.2.2 Experiences of critical care nursing students regarding mentorship in the critical care unit

The participants had varying experiences regarding mentorship in the critical care unit. Some had positive experiences while others had negative experiences. The findings of this study revealed that shortage of staff in the critical care unit resulted in the critical care student not being able to attain all their learning outcomes successfully. Inexperienced critical care nursing students are confronted with a variety of conditions and situations, many of which are seen for the first time. Studies have shown that (Spann, 2010). The healthcare environment is changing rapidly; patients tend to live longer and are becoming more acutely ill in larger numbers Spann (2010) predicted that by 2025 there will be a need for approximately 260 000 practice ready nurse. At present 40% of the nurses are over the age of 50 and nearing retirement (Race and Skees 2010: 163-174). According to Race and Skees 2010), many argue that the shortage of staff is due to the stressful nature of the critical care discipline, which leads to frustration and burnout at very high rates. It is noted within the literature that peer mentorship appears to play a key role in increasing recruitment and decreasing nursing turnover in critical care units (Buffum and Brandon 2009: 357-362).

It is evident that critical care nursing student support is not present in the critical care environment. This support is imperative as the student, who is categorized as a novice in Bennet's Novice to Expert theory, is looked as a beginner who has little or no experience in the situations they find themselves in. Theses novice students have to be taught about the situations to allow them to gain the experience necessary for skill development; if they do not get this support how are they expected to integrate theory and practice from the beginning of their course requirements?

Literature is consistent in showing that peer mentoring is of great value in the critical care unit; it plays a fundamental role in the development of novice nurses in this area. In order to acquire knowledge, a student has to pass through five

levels of proficiency, namely novice, advanced beginner, competent, proficient and expert. These levels reflect changes in three general aspects of skill performance:

- A movement from reliance on abstract principles to the use of past concrete experience as paradigms.
- A change in the learner's perception of the demands of a situation from a compilation of equally relevant bits to a complete whole in which only certain bits are relevant.
- Movement from detached observer to involved performer (Benner, 1984: 13).

These novice critical care nurses view patient care as a string of duties to be done, instead of a collaborative or holistic care effort. Benner (1984: 21) expands on this aspect in her theory when she explains that the novice's behavior is one that relies on context-free rules, and focuses on "what is to be known and what should be done."

A study conducted by Hunt and Ellison (2010: 192-196) reveals that peer mentoring provides assistance with concepts and skills in a non-threatening manner as peer mentors feedback is non-evaluative. This information exchange leads to less stress and increased confidence for the critical care nursing student.

5.2.3 The perceptions of critical care nursing students regarding mentorship in the critical care unit

The perception of some of the participants was that they were not getting sufficient supervision in the critical care units. This was attributed to unavailability of mentors, increased workload of trained staff and reluctance of senior student nurses to supervise the junior student nurses.

5.2.3.1 Lack of supervision in the critical care unit

The study highlighted the fact that the critical care nursing student had experienced a decreased amount of supervision, and this led to fear and anxiety levels being increased. The theory component coupled with the clinical component proved to be an overwhelming experience in the short duration of their course. Students were expected to function as qualified critical care nurses but with knowledge and skill deficiencies, this was not feasible.

In the novice stage learners are inexperienced and practice only according to rules as they have minimal or no contextual basis on which to critically think or to make judgements. Some of these students may be experienced but are new to a particular specialty area, as evident with some of the participants in this study. This stage illustrates that there is a difference in knowledge gained in a classroom setting and attained through context dependent situations in practice (Benner 1984: 21).

As the learner is exposed to and manages more clinical situations, experience is gained and the level of proficiency progresses to the second stage of the model, the advanced beginner

Mentors are key to facilitating the critical care nursing student into the practice role so they can function effectively and with confidence. Peer mentors also suffer from demands which are brought about by their own day to day workload, and their commitment as a peer mentor. Research has shown that adjusted workloads don't necessarily occur in order to accommodate the effective process of mentoring (Omansky 2010: 697-703).

5.2.3.2 Unavailability of trained skilled mentors

Waldock (2010: 14) emphasized that teaching is an important function of the registered nurse, including the facilitation of student nurses' learning in the clinical environment. It is well documented that the shortage of skilled staff is a

global issue. This impact negatively on the ability of the critical care nursing student to integrate theory and practice, as there is minimal guidance and support from mentors.

5.2.3.3 Increased workload of trained staff

It was evident in the study that the mentors experienced an increased amount of workload, and this impacted on their ability and availability to mentor. Gopee (2011: 203) confirms this by saying that there is insufficient time for mentoring of students because of work commitments and increased workload. The critical care unit is a highly stressful environment and critical thinking is imperative; however, this along with the increased workload that the mentors have to deal with leads to burnout and lack of enthusiasm to be a positive role model to the mentee. Workload issues infiltrate to the nursing students, with the workload interfering with their learning due to inadequate contact time with their mentors.

5.2.3.4 Reluctance of senior students to supervise the junior student nurses

The study also highlighted the fact that the senior students were reluctant to supervise the mentees. With the increased workload that the mentors have to deal with, this leads to inadequate mentor preparation as a barrier to successful mentoring (O'Driscoll *et al.* 2009: 212-217). Lack of an understanding of the goals and learning outcomes of the critical care nursing student also presents a challenge to mentoring and this inhibits the mentor's ability to supervise (Omansky 2010; Hurley and Snowden 2008). Research has shown that the process of mentorship cultivates a close relationship between mentee and mentor. Abbot (2009: 9-13) states that, this relationship could impact on the mentor's ability to carry out an objective assessment of the mentee.

5.2.3.5 Reluctance to share information

Participants have mentioned in this study that some peer mentors are reluctant to share their knowledge with the mentees. It is evident that often there is no

recognition from their peers or even management for the added workload performed by the mentor. The participants indicated that mentors are of the mind-set that peer mentoring is not in their job description and that there are other individuals around to undertake the task of teaching. One of the core functions of a mentor as identified by Nettleton and Bray's study in 2007 is that of a teaching function. There is a need for an increase in the training and updates for mentors (Nettleton and Bray 2007: 205), as this will enhance the teaching responsibilities of the peer mentors.

5.3 CONCLUSION

Experiences of the critical care nursing students with reference to peer mentoring and attainment of their learning outcomes were explored in this study. The critical care nursing students that were interviewed reinforced the importance of peer mentoring as a vital component of their development into a proficient nurse practitioner. Participants believed that making peer mentoring a vital component in the registered nurses core competencies would enable efficiency and guarantee the viability of peer mentoring.

5.4 LIMITATION OF THE STUDY

Initially in the interview process, the participants were slightly reserved and not willing to open up. However, they improved during the interview process, and they were able to express their feelings in a non-threatening environment.

5.5 RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made with reference to nursing education, institutional management and practice, policy development and implementation and finally further research.

5.5.1 Nursing education

It is emphasized that formal support in the form of peer mentoring is crucial in assisting the critical care nursing student to achieve their learning outcomes. The researcher therefore recommends that a formalized mentorship programme be incorporated into the core competencies of all qualified critical care nurses, and that this be reflected in their performance appraisal. This will motivate the registered nurse to fulfil her/his independent function as a teacher.

The unit mentor should familiarize him/herself with the prescribed learning objectives of the critical care nursing student. This will enable the unit mentor to delegate appropriately so that learning outcomes are achieved by the mentee.

There should be an allocation of supernumerary time for the critical care nursing student and their mentor to allow time for formal mentoring responsibilities to take place away from the clinical area, to facilitate assessment and feedback, and to enhance consolidation.

5.5.2 Institutional management and practice

- Healthcare organizations should make peer mentorship programmes mandatory in their budget planning, and should allocate funds for these programmes.
- Ongoing mentorship structured meetings in the clinical setting involving all parties in the mentorship programme.
- An incentive should be given (for example sponsorship to conferences and workshops) to identified mentors taking on the mentorship role.
- Increase the opportunities for training of prospective mentors.

5.5.3 Policy development and implementation

Clarification within the performance management of the registered nurse, to include a key performance area for mentorship in order for the registered nurse to know her/his role in all the aspects of skill development of the mentee.

5.5.4 Further research

Ongoing evidence-based practice research should be conducted on this topic to provide more information on how peer mentoring effects the mentee, nursing education and retention of skilled staff.

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APPENDICES

Appendix 1: University Ethics Clearance

DUT DURBAN UNIVERSITY OF TECHNOLOGY
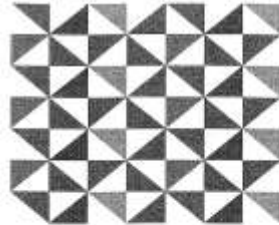
Institutional Research Ethics Committee
Faculty of Health Sciences
Room M5 49, Mansfield School Site
Gate 8, Ritson Campus
Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2900
Fax: 031 373 2407
Email: lavishad@dut.ac.za
http://www.dut.ac.za/research/institutional_research_ethics

www.dut.ac.za

8 August 2014

IREC Reference Number: **REC 45/14**

Ms S Y Beepat
216 Bankhead Road
Hillary
Durban
4094

Dear Ms Beepat

The influence of peer mentoring on the critical care nursing student's learning outcomes

I am pleased to inform you that Full Approval has been granted to your proposal REC 45/14.

The Proposal has been allocated the following Ethical Clearance number IREC 048/14. Please use this number in all communication with this office.

Approval has been granted for a period of one year, before the expiry of which you are required to apply for safety monitoring and annual recertification. Please use the Safety Monitoring and Annual Recertification Report form which can be found in the Standard Operating Procedures [SOP's] of the IREC. This form must be submitted to the IREC at least 3 months before the ethics approval for the study expires.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the IREC according to the IREC SOP's. In addition, you will be responsible to ensure gatekeeper permission.

Please note that any deviations from the approved proposal require the approval of the IREC as outlined in the IREC SOP's.

Yours Sincerely

Prof J K Adam
Chairperson: IREC

70

216 Bankhead Road

Hillary

Durban

4094

12 July 2014

The Health Research and Knowledge Management Component

KwaZulu-Natal Department of Health

Private Bag X9051

Pietermaritzburg

3201

Dear Sir

REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY

I am presently registered for a Master's Degree at the Durban University of Technology in the Department of Nursing. The proposed title of my study is *'The influence of peer mentoring on the critical care nursing student`s learning outcomes'*. I hereby request permission to conduct the study at RK Khan Hospital, and King Edward V111 Hospital.

Interviews will be used to collect data from the critical care nursing students. Participation is voluntary, and informed consent will be obtained from all participants. Confidentiality will be maintained at all times. Please find attached a copy of the summary of the research proposal for perusal.

Sincerely

…………………………..

Mrs SY Beepat (Researcher)

Telephone: 082 458 1274

Email: ybeepat@gmail.com

…………………………..

Prof MN Sibiya (Supervisor)

Telephone: 031-373 2606

Email: nokuthulas@dut.ac.za

……………………………

Ms TSP Ngxongo (Co-supervisor)

Telephone: 031-373 2748

Email: thembelihlen@dut.ac.za

Appendix 2b: Approval letter from the KZN Department of Health

health

Department:
Health
PROVINCE OF KWAZULU-NATAL

Health Research & Knowledge Management sub-component
10 – 103 Natalia Building, 330 Langalibalele Street
Private Bag x9051
Pietermaritzburg
3200
Tel.: 033 – 3953189
Fax.: 033 – 394 3782
Email.: hrkm@kznhealth.gov.za
www.kznhealth.gov.za

Reference   : HRKM 227/14
Enquiries   : Mr X Xaba
Tel   : 033 – 395 2805

Dear Ms SY Beepat

Subject: Approval of a Research Proposal

1. The research proposal titled **'The influence of peer mentoring on the critical care nursing student's learning outcomes'** was reviewed by the KwaZulu-Natal Department of Health.

   The proposal is hereby **approved** for research to be undertaken at King Edward VIII and RK Khan Hospital.

2. You are requested to take note of the following:
   a. Make the necessary arrangement with the identified facility before commencing with your research project.
   b. Provide an interim progress report and final report (electronic and hard copies) when your research is complete.

3. Your final report must be posted to **HEALTH RESEARCH AND KNOWLEDGE MANAGEMENT, 10-102, PRIVATE BAG X9051, PIETERMARITZBURG, 3200** and e-mail an electronic copy to hrkm@kznhealth.gov.za

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

Yours Sincerely

Dr E Lutge
Chairperson, Health Research Committee
Date: 28/08/14.

uMnyango Wezempilo . Departement van Gesondheid

Fighting Disease, Fighting Poverty, Giving Hope

216 Bankhead Road

Hillary

Durban

4094

12 July 2014

Ms P Dladla

The Acting District Manager

EThekwini Health District

Mayville

4001

Dear Madam

REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY

I am presently registered for a Master's Degree at the Durban University of Technology in the Department of Nursing. The proposed title of my study is *'The influence of peer mentoring on the critical care nursing student`s learning outcomes'*. I hereby request permission to conduct the study at RK Khan Hospital, and King Edward V111 Hospital.

Interviews will be used to collect data from the critical care nursing students. Participation is voluntary, and informed consent will be obtained from all participants. Confidentiality will be maintained at all times. Please find attached a copy of the summary of the research proposal for perusal.

Sincerely

…………………………
Mrs SY Beepat (Researcher)

Telephone: 082 458 1274

Email: ybeepat@gmail.com

…………………………….
Prof MN Sibiya (Supervisor)

Telephone: 031-373 2606

Email: nokuthulas@dut.ac.za

…………………………………
Ms TSP Ngxongo (Co-supervisor)

Telephone: 031-373 2748

Email: thembelihlen@dut.ac.za

Appendix 3b: Approval letter from the District Office

health

Department:
Health
PROVINCE OF KWAZULU-NATAL

Postal Address: Private Bag X54315 Durban 4000
ss: 33 Jan Smuts Highway, Mayville, Durban 4001
Tel.031 2405308; Fax 031 2405500
Email: penny.dladla@kznhealth.gov.za
www.kznhealth.gov.za

Enquiries: Ms Ntombifuthi Mthethwa
Tel: 031 240 5342
Date: 18 August 2014

Attention: Somavathy Yvonne Beepat

E-mail : ybeepat@gmail.com

REQUEST TO CONDUCT RESEARCH:

The Influence of peer mentoring on the critical care nursing student's learning outcomes.

Support is hereby granted to conduct research on the above topic.

Please note the following:

1. Please ensure that you adhere to all the policies, procedures, protocols and guidelines of the Department of Health with regard to this research.

2. This research will only commence once this office has received confirmation from the Provincial Health Research Committee in the KZN Department of Health.

3. Please ensure that this office is informed before you commence your research.

4. The District Office will not provide any resources for this research.

5. You will be expected to provide feedback on your findings to the District Office.

Ms. N.B. Mthethwa

For The District Manager
Ethekwini Health District
Telephone: 031 2405342
Fax: 031 2405501
Email: ntombifuthi.mthethwa@kznhealth.gov.za

uMnyango Wezempilo Departement van Gesondheid

Fighting Disease. Fighting Poverty. Giving Hope

216 Bankhead Road

Hillary

Durban

4094

12 July 2014

The Research Committee Life Healthcare

Ms Anne Roodt

Nursing Education Specialist

Oxford Manor

21 Chaplin Road

Illovo

2196

Dear Madam

REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY

I am presently registered for a Master's Degree at the Durban University of Technology in the Department of Nursing. The proposed title of my study is *'The influence of peer mentoring on the critical care nursing student`s learning outcomes'*. I hereby request permission to conduct the study at the hospitals within the Life Healthcare group within KZN.

Interviews will be used to collect data from the critical care nursing students. Participation is voluntary, and informed consent will be obtained from all participants. Confidentiality will be maintained at all times. Please find attached a copy of the summary of the research proposal for perusal.

Sincerely

………………………………

Mrs SY Beepat (Researcher)

Telephone: 082 458 1274

Email: ybeepat@gmail.com

………………………………

Prof MN Sibiya (Supervisor)

Telephone: 031-373 2606

Email: nokuthulas@dut.ac.za

………………………………………

Ms TSP Ngxongo (Co-supervisor)

Telephone: 031-373 2748

Email: thembelihlen@dut.ac.za

Appendix 4b: Approval letter from Life Healthcare

From: Roodt, Anne

Sent: 18 September 2014 12:45 PM

To: Barnard, Barries

Subject: Permission needed to allow research to be conducted at Life ▮▮▮▮▮ Hospital

Dear Barries

A request was received by the Life Healthcare Research and Scientific Committee for permission to conduct research in your hospital. The title is 'The influence of peer mentoring on the critical care nursing student's learning outcomes in critical care units in KwaZulu-Natal' by Yvonne Beepat who is a nurse educator at the Life College of Learning in KZN. The Committee has approved the research project as all ethical and legal considerations have been met. The next step is to get your permission to allow the research to take place in your hospital.

I have attached the research project proposal for you and if you need further information I will gladly send it to you. Please send an email back to me indicating if you are willing to let the research take place or not. If your answer is positive, I will inform the candidate who will then contact you personally to arrange the details.

Many thanks for your help in this matter.

Kind regards

Anne Roodt
Nursing Education Specialist

Life _College of Learning_

Tel   : +27 43 743 2753
Fax   : +27 43 743 6824
Mobile   : +27 82 2269775
Email   : anne.roodt@lifehealthcare.co.za
Website: www.lifehealthcare.co.za

Appendix 4c: Approval letters from the private hospitals

From: Rout, Kathy

Sent: 30 September 2014 09:01 AM

To: Barnard, Barries

Subject: RE: Permission needed to allow research to be conducted at Life ██████ Hospital

Hi Barries,

OK with me,
Thanks

Kathy Rout
Nurse Manager
Life The Crompton Hospital

Life Healthcare

102 Crompton Street, Pinetown 3610
P O Box 1466, New Germany, 3620
Tel   : 031-737 3000
Direct no : 031 737 3040
Cell   : 0824653836
Fax   : 086 5010 138
Email   : Kathy.Rout@lifehealthcare.co.za
Website   : www.lifehealthcare.co.za

From: Amod, Abdool

Sent: 29 October 2014 12:25 PM

To: Roodt, Anne

Subject: RE: Permission needed to allow research to be conducted at Life ███████ Hospital

Hi Anne

Sorry for the delay. I am happy for the research to take place.

Regards

Abdool Amod

Hospital Manager

Life Westville Hospital

7 Spine Road, Westville, 3630
PO Box 467, Westville, 3630
Tel: +27 31 251 6809
Fax: +27 86 651 8340
Mobile: +27 83 578 6525
Email: abdool.amod@lifehealthcare.co.za
Website: www.lifehealthcare.co.za

From: Kendall, Graeme

Sent: 29 October 2014 03:30 PM

To: Roodt, Anne

Subject: RE: Permission needed to allow research to be conducted at Life
████████████ Hospital

Importance: High

Hi Anne,

Sorry for delay – we are happy for you to proceed with the research at our
Hospital.

Kind Regards

Graeme Kendall
Hospital Manager
Life Mount Edgecombe Hospital

![Life Healthcare]

Physical Address:	163 - 179 Redberry Road, Rockford, Phoenix, 4068
Postal Address:	P.O. Box 204, Mount Edgecombe, 4300
Tel:	+27 31 537 4200
Cell:	+27 82 584 2289
Fax:	+27 31 502 1204
Email:	graeme.kendall@lifehealthcare.co.za
Website:	www.lifehealthcare.co.za

In the interest of the environment – think before you print!

From: Barnard, Barries

Sent: 01 October 2014 06:40 AM

To: Roodt, Anne

Subject: FW: Permission needed to allow research to be conducted at Life ████████ Hospital

Hi Anne,

The mails below refers. As you can see our Nursing manager is OK with this.

Please direct correspondence to her.

Regards,

Barries Barnard
Hospital Manager
Life The Crompton Hospital

Life Healthcare

102 Crompton Street, Pinetown,3610
P O Box 1466, New Germany, 3620
Tel   : +27 31 737 3000
Fax   : +27 31 702 2790
Cell   : +27 83 228 2805
Email   : barries.barnard@lifehealthcare.co.za
Website: www.lifehealthcare.co.za

Letter of information to the participants

Thank you so much for agreeing to participate in this study.

Title of the Research Study: The influence of peer mentoring on the critical care nursing student`s learning outcomes

Principal Investigator/s/researcher: Ms Yvonne Beepat, M Tech: Nursing.

Co-Investigator/s/supervisor/s: Prof MN Sibiya, D Tech: Nursing (Supervisor); Ms TSP Ngxongo, M Tech: Nursing (Co-supervisor).

Brief Introduction and Purpose of the Study: The current and growing shortage of nurses in the healthcare system is a global concern, and the critical care environment is not excluded from this. The retention and recruitment of critical care nurses is a vital requirement in a challenging work environment, faced with such shortage. As a key strategy for supporting critical care nursing students, peer mentoring is promoted. The purpose of this study is to explore the relationship between peer mentoring in the critical environment and the critical care nursing students learning outcomes.

Outline of the Procedures: An in-depth interview will be conducted with you in order to explore the influence of peer mentoring in the critical care environment and you're learning outcomes. The interview will be conducted at your hospital, on your day off, lasting for the approximately 30-45 minutes.

Risks or Discomforts to the Participant: There are no foreseeable risks or discomforts posed to you.

Benefits: The findings are hoped to create awareness for the need for support for the critical care nursing student to obtain learning outcomes.

Reason/s why the Participant May Be Withdrawn from the Study: Your participation is voluntary, you are under no obligation to participate, and may withdraw from the study at any time without penalty or prejudice.

Remuneration: You will receive no monetary or any other type of remuneration.

Costs of the Study: You will not be expected to cover any costs towards the study.

Confidentiality: All data collected will be strictly private and confidential and will only be used for the purpose of the study. No information will be linked to the participant`s identity

Research-related Injury: The study does not pose any risk of injury to you.

Persons to Contact in the Event of Any Problems or Queries: Please contact the researcher Ms Yvonne Beepat on 0824581274, Prof Sibiya, my supervisor on 031-373 2606 or the Institutional Research Ethics administrator on 031-373 2900. Complaints can be reported to the DVC: TIP, Prof F. Otieno on 031 373 2382 or dvctip@dut.ac.za.

CONSENT

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, **Ms Yvonne Beepat** about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: _____,

- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.

- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.

- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.

- I may, at any stage, without prejudice, withdraw my consent and participation in the study.

- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.

- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

Full Name of Participant: …………………………………………………..

……………………………………   ……………………..   ……………

Signature / Right Thumbprint   Date   Time

I, **Ms Yvonne Beepat** (Researcher) herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

……………………………   ………………   …………
Full Name of Researcher   Signature   Date

……………………………   ………………   …………
Full Name of Witness (If applicable)   Signature   Date

……………………………   ………………   …………
Full Name of Legal Guardian (If applicable)   Signature   Date

<u>**Appendix 6**</u>**: Interview guide**

Date: …………………. Participant no: …………………………

Demographic data

Age: ………………….. Gender: …………………………..

Race: ………………… Years of experience: …………………

Grand tour question

- What influence does peer mentoring have on the critical care nursing students' learning outcomes in the critical care unit?

Probing Questions

- What is your personal view on peer mentoring?

- What form of support do you receive in the critical care unit in the capacity of a critical care nursing student?

- What challenges are you experiencing in reaching your learning outcomes?

- What would be your recommendations regarding solutions to these challenges?

- Any other question will be asked based on the responses of the participant to the above questions

NB: The questions will be guided and supported by probing where necessary so that the researcher can get clarity on information given.

<u>Appendix 7</u>: Transcribed Interviews

Transcribed Interview: 1

Participant 3 of Health Sector A and Interviewer

Interviewer: Ok... good afternoon Participant 3. I'm Sr. Beepat. Thank you so much for your time in in affording me this interview with regard to my research and my data collection. Ok I see you are a registered nurse from 2009, how long are you in the ICU programme, critical nursing programme now?

Participant 3: Since September

Interviewer: September this year?

Participant 3: Yes...

Interviewer: I just want to know what your view is regarding peer mentoring. Information like: Do you get peer mentoring in the clinical setting in the health sector, challenges with regard to the critical care nursing course and what you think about peer mentoring?

Participant 3: Ahhh...errr... some hospitals err.. do... teach us a lot, but other hospitals they don't do it...

Interviewer: Ok

Participant 3: Uhmm... I think...err it's challenging to do this course because you've got a lot of challenges each day. Yeah.

Interviewer: Relax, it is ok! What are your challenges as a sister on the floor doing the ICU course? What challenges do you face?

Participant 3: Hmmm errr for me I'm from the err small hospital

Interviewer: Ok

Participant 3: err... so I've got err new things... I've learnt new things...

Interviewer: Yes

Participant 3: Like the machines...

Interviewer: Ok

Participant 3: in our hospital. Basically we don't have ICU... we have err... high care unit,

Interviewer: Ok

Participant 3: Yes... so, when I do... this course... I experiencing new things

Interviewer: New things?

Participant 3: Yes...

Interviewer: Ok. Do you get peer mentoring?

Participant 3: Uhhh... sometimes

Interviewer: Sometimes

Participant 3: Yeah

Interviewer: Do you find it helps you... when you if you when you get it?

Participant 3: Yeah it helps me a lot. At the beginning of the course I was very nervous and with the assistance of people that supervise us I have grown professionally and err… I have developed some confidence in performing my duties in the unit.

Interviewer: Ok... what would be your recommendations... what can you suggest for new students that are coming into the course. To make, make it ok for them, what would you suggest? As support?

Participant 3: Uhhhmmm... I think the uhmm... I will encourage this peer mentoring,

Interviewer: Yeah,

Participant 3: Because it errr it... it's a gain to us as students. Because of it... you will be able to understand more... if you are peer mentoring... I think

Interviewer: From your peer you would understand more?

Participant 3: Yes, and you'll be err... free to ask questions and stuff

Interviewer: Ok... you'd be much more comfortable?

Participant 3: Yes

Interviewer: Do the senior nurses allocated to the units share information with you? Do they supervise you in the critical care units?

Participant 3: Well …err I would expect that they do, but no no they don't. We expect the seniors to guide and support us and help us to work through the cases allocated to us, but most of the time they hide their information and don't wanna share it with us .Err.. as for the registered nurse in the critical units are not happy to supervise us …they are not tutors and they say that they don't get paid for student err err… student supervision

Interviewer: Are there any support structures in place in the unit that you work in, to help the students? What's your your day like when you come on in the morning? What is expected of you?

Participant 3: Uhmmm...

Interviewer: You come... you take the handing over report and then what happens?

Participant 3: Yes, we'll come, we'll take hand over and uhmm we begin with the morning routine. As usual... we carry on as usual... We do rounds, carry out doctor's orders

Interviewer: Mmm hmm...

Participant 3: And…..

Interviewer: Do you get allocated a specific patient?

Participant 3: Yes

Interviewer: You do

Participant 3: Yes... in some health sectors we'll we'll we'll we'll bud with the permanent staff, but some other health sectors they just allocate patients to us.

Interviewer: On your own

Participant 3: On our own, yes...

Interviewer: Ok. Is there anything else you want to tell me? Anything you want to add on peer mentoring any suggestions or about critical care nursing?

Participant 3: Uhhhmm I think they will encourage this peer mentoring... yeah. Uhmm… its its good to have. About err… critical care nursing …. Basically we don't have critical care units we have …err…high care units and for me, I only have neonatal critical care experience. All my training I have err … just been allocated in these small units so so so .. I err cannot say I know critical care nursing.

Interviewer: And how do you find the theory part of the course? How is the theory going?

Participant 3: Yeah... when you are correlating the err theory with the practical

Interviewer: Mmm hmm

Participant 3: I think it helps a lot because err as for me I'm from the small hospital, I've learnt the new things like the machines and it is very difficult when there is no clinical support, but when there is I can correlate theory and practical, I've gained.

Interviewer: Good. Which hospital are you from?

Participant 3: I'm from …………...

Interviewer: Ok and what is the duration of the ICU course you're doing? Is it a year?

Participant 3: It's a year.

Interviewer: Ok, Lovely. Thank you so much for your time. Whatever we discussed is confidential. Thank you for volunteering to give me your information and I look forward to a relationship and help with each other in the profession.

Participant 3: Ok

Interviewer: Alright.

Participant 3: Ok, thank you.

Interviewer: Thank you.

Transcribed Interview 2

Participant five of Health Sector B and Interviewer:

Interviewer: Good afternoon and, thank you for affording me this interview with regard to peer mentoring. Uhmm...You say you are working 9 years in the ICU

Participant 5: Mmm Hmm

Interviewer: and you are currently doing the ICU course. I just got a few questions to ask you on peer mentoring. Ok... uhmm... what is your personal view on peer mentoring?

Participant 5: Hmmm... I think it is something very good to have...

Interviewer: Mmm hmm

Participant 5: And it will motivate and then you'll learn as well...

Interviewer: Ok

Participant 5: From your peers and stuff...

Interviewer: Ok... cool. What form of support do you receive in the critical care unit in your current capacity as a critical care nursing student? What support do you actually receive?

Participant 5: Hmmm... no support... Yeah I'm being quiet honest...

Interviewer: Mmm Hmm...

Participant 5: Uhmm... as a student they expect you to... coming from the college they expect you to know theoretically

Interviewer: Mmm Hmm...

Participant 5: But practically exposure and uhmm... they expect you to know these things whereas our tutor says it comes over years like err....

Interviewer: Yeah, yes

Participant 5: An experience and uhmm... they just expect you to have hands on to know exactly everything and you know, but it... I don't know it...

Interviewer: Difficult...

Participant 5: It's difficult.

Interviewer: Ok, so what other challenges are you experiencing in reaching your learning outcomes? Especially that you are not getting that peer support.

Participant 5: I'd say uhmm...errr... theory wise you can apply your theory, but when it comes to practical and exposure uhmm especially that you know uhmm...I think in Health sector ....., you kind of get exposed...

Interviewer: Ok

Participant 5: But err... coming to private practice and regarding this I'm not saying you don't get in provincial cases, but......

Interviewer: Mmm Hmm...

Participant 5: In health sector ..... it's like more, or it is just worse, you have the more experienced nurses to work with but

Interviewer: Ok

Participant 5: It's where you need to get the practical knowledge and meeting your outcomes. So they kind of shun you away from that

Interviewer: Yeah...

Participant 5: that's what I've experienced in my training

Interviewer: Ok so that's a bit of a difficulty... ok, given all of that what you've said, what would be your recommendations regarding solutions to these challenges. What would you recommend for future students?

Participant 5: For future student... uhmm... I know there's a problem regarding staffing and uhmm its been brought up time and time again, students are used as workforce and uhmm... just at least nine hours in the day, at least once a week, buddy a student that is ICU trained, that is my recommendation.

Interviewer: Hmm ok...

Participant 5: Even as that student will one day become a team leader... and that's what I think I'm going to experience when I go back on the field...

Interviewer: Sho!

Participant 5: You need someone to guide you... that is when you have pre- peer mentoring coming through. At least for nine hours give that student that nine-

Interviewer: that benefit.

Participant 5: Yes... I mean...it's a give and take. Uhmm lets see... if I was a unit manager, I would look into something like that

Interviewer: Ok

Participant 5: and then it'll motivate the others as well... if they want to do the ICU course. Because they're getting some form of mentoring and then then you don't have to worry about about legal cases or you know other things that you know will – can arise, because if you have a buddy system just for nine hours uhmm

Interviewer: You're a bit covered...

Participant 5: Yes... I mean give them that clinical nine hours... it's not much

Interviewer: Mmm Hmm

Participant 5: You know, just for the day... you know... and then there after I mean you know she can go and help, give her a seven four coz normally you have to work a 42 hour week. If you work two sevens and two fours so give them at least that one 7-4 and they'll appreciate you because uhmm if they see you taking an interest in them...

Interviewer: Yes...

Participant 5:: and they will give off their best

Interviewer: Their best...

Participant 5: so when you need coverage you know you'll say to a student can you help me out today, you know... I do not have a staff member

Interviewer: Yes... Mmm Hmm

Participant 5: on duty. I'm quite sure the student will be very glad to help you out...

Interviewer: mmm...

Participant 5: That's what I feel... that would be my opinion, because just at least, just the nine hours...

Interviewer: It's not much huh...

Participant 5: It's not much...

Interviewer: That's good... any other recommendations...

Participant 5: Uhmm other recommendations... will be uhmm... you have to have a team leader on the floor

Interviewer: Mmm Hmm

Participant 5: and you can give that student a uhmm hectic or critical patient to nurse because you know you have a team leader to watch over and guide her

Interviewer: Yes..

Participant 5:: and don't shun her away from being exposed let her learn and if she is not sure have an ICU already trained person that's the team leader on the floor and you as a unit manager as well... you not gonna sit in your office all the time...

Interviewer: Mmm Hmm

Participant 5: I mean I feel that's what's happening, they sit in their office where they themselves can be a mentor to a student

Interviewer: Hmmm...

Participant 5: I know there's a lot of admin work that goes... but I heard and I really admire this one unit manager that has now become a matron, she said from 7-2 she's on the floor in the unit and then thereafter 2-4 she's in her office, doing whatever other work and if something comes up...and she needs to go for a meeting

Interviewer: Yes

Participant 5: I really admired her for that, because that shows that your staff will not have burn out

Interviewer: Yes

Participant 5: You're not putting pressure on that one RN on the floor who has all the other subordinates below her...

Interviewer: Mmm hmm

Participant 5: You know so... that could be, unit managers need to be not only sitting in their office doing admin work because they should be counted as registered nurses as well...

Interviewer: Registered nurses...

Participant 5: Because at the end of the day, if you're looking at specialized units and uhmm... in a crisis she's counted as a nurse

Interviewer: Yes...

Participant 5: And uhhh what I see is no matter where you start off in your nursing career end of the day you're a nurse.

Interviewer: I see

Participant 5: To save a life

Interviewer: Yeah, no matter what, you're still a nurse.

Participant 5: yes

Interviewer: Thanks. Any other things, views or comments on peer mentoring... and learning outcomes?

Participant 5: Uhmm.. You know, shame you know the team leaders uhmm... are under so much of pressure because from the health sector that I come from... and being a student and being exposed and going to other units and working different health sectors and yet being in the same group. Our team leaders have to take on patients and run a shift

Interviewer: Yes

Participant 5: That's quite hectic and I I do not understand there are sister health sectors that you have one person that's readily available on the floor for an emergency and they're needed and you've got one person sitting in the – I'm not talking about the UM now I'm talking about a free qualified ICU trained that's being the team leader or the shift leader for that day

Interviewer: Mmm

Participant 5: Uhmm... they want to mentor you... they want to teach you... it's a pressure

Interviewer: Pressure?

Participant 5: They are... I really admire them, they do want to teach you... let's say if err... an MI walks in through that door, and its so quick, everything you have to do it so quickly.

Interviewer: Fast yeah..

Participant 5: Exactly, you have to give them the thrombelectics and they want you to do it, but at the same time you know it's that life that...

Interviewer: Yes

Participant 5: So... and...my heart really goes out for those team leaders and peer mentors ... where they have their own two patients and here they're coming to help you... and they still have to worry about sixteen other patients on the floor. They have their own patients, their own workloads and responsibilities to worry about and they have to prioritise the patient over us , this is their core responsibility … you know ?

Interviewer: the whole lot...

Participant 5: Most of the staff in the units are students , with just one or two trained staff, it is really impossible for them to be able to give us all enough attention, because they need to prioritise the patients... so that also leads to their burn out and then where do they have time to mentor us ? Therefore, you find your students err... finding it hard to fill their work books...

Interviewer: Oh yes... their clinical work book?

Participant 5: Yes, it's kind of very hard, so... they do... I'm not saying that they don't want to teach you...

Interviewer: They just- they have the capacity, they just don't have the time.

Participant 5: Yes and then another thing is...errmm... your CTS's are I know they're also swamped with a lot of ummm... paper work and things like that, but it's nice to see them coming more into the unit and uhmm especially if students are from a different environment from a different health sectors

Interviewer: Mmm Hmm...

Participant 5: that's coming

Interviewer: To that... to that particular discipline

Participant 5: Yes... to just check up on them and uhmm no use doing it on their DPG day, finding out their problems, I mean come into the units and there and then you know. Find out what they need to know. It's not only left to the mentoring and the peers and you know on the floor to teach you

Interviewer: Yes

Participant 5: I mean that's what...

Interviewer: exactly

Participant 5: CTS are for...

Interviewer: CTS they have different ones for the ICU obviously and different ones for the wards...

Participant 5: Yes..yes.

Interviewer: Ok, so there are CTS available.

Participant 5: So that's true, and there are mentors that are chosen in the unit... uhmm to teach students. Like I tell, I'm telling you now...

Interviewer: Mmm Hmm...

Participant 5: because it's hard for them because they are shift leaders at the same time and uhmm... they're doing patients on their own... they're nursing their own patients

Interviewer: Yes. They have their workload

Participant 5: Yes and then they have to be accountable

Interviewer: Mmm Hmm...

Participant 5: for all the other patients and then you got your juniors like your EN's

Interviewer: Yes

Participant 5: That needs to be supervised.

Interviewer: Supervised?

Participant 5: So now you going in as an ICU student, remember you are allocated to... let's say it's a five bed here and you've got two EN's that are there, you have to overlook them.

Interviewer: So, It's hectic

Participant 5: Yes...

Interviewer: So we'll take your recommendations and put it down in my research and hopefully we can come... come with something good out of all of this...

Participant 5: Yeah... that's so true

Interviewer: thank you so much for your time

Participant 5: No problem

Interviewer: And I wish you all of the best in the furtherance of your studies...

Participant 5: Thank you

Interviewer: Thank you .