

CHAPTER 1

OVERVIEW OF THE STUDY

1.1 INTRODUCTION

This chapter provides an overview of the study undertaken. The background to the study is provided followed by the research problem, purpose and objectives. The study's significance, meta-paradigmatic perspectives and the definitions used will also be described. An overview of the research methodology, design and ethical considerations is included in this chapter.

1.2 BACKGROUND TO THE STUDY

The main reason for the introduction of post registration nursing continuing professional development (CPD) is to provide safe quality patient care by updating the critical care nurse's current knowledge and skills to cope with her constantly changing environment and expanding role (Ball and McElligot, 2003; Gould, Berridge, & Kelly, 2006). Despite this evidence the South African Nursing Council (SANC) has not introduced an accrediting CPD system for post registered nurses. The consequences of this could lead to ICU patients error and poor outcomes (Alspach, 2008), critical care nurses job dissatisfaction resulting in staff shortages (Scribante, Schmollgruber & Nel, 2004; World Health

Organization (WHO), 2006), lack of recognition internationally and the lack of growth of the profession nationally (Scribante et al, 2004; Scribante & Bhangwanjee: 2007; 2008).

On completion of a nursing program, the expectation is that nurses will, through life long learning, continue to develop and expand their nursing knowledge and skills (Bahn,2006; Ryan, 2003). Benner (1984) in her seminal work describes the five phases of development from novice to expert in order to achieve competence. A nurse entering ICU nursing will be classed as a novice and through clinical practice, experience and acquired knowledge, progress through the different phases of competency (Ball, Walker, Harper, Sanders & McElligott, 2004).

Fowler (2007) describes learning as “experience plus reflection”. ICUs are a constant learning and reflecting environment and provide for workplace learning and reflecting opportunities. This author explains “Nursing is a practice based profession... and experiential learning is an experience based learning theory and as such fits congruently with the philosophy and structure of nursing education”.

Nurses working specifically in ICU’s are constantly challenged with nursing critically ill patients, emerging diseases, increased workload, occupational hazards, mastering new technology, complex patient assessment and interventions (AACCN 2003; Huggins, 2003) to provide world class care, in state of the art ICU’s. The critical care nurse is required to make rapid critical analytical judgements and decisions concerning patient’s whose conditions can change minute by minute (AACCN,2003; Huggins, 2003). Post registration CPD can be used, formally or informally, to update and refresh the critical care nurse’s knowledge and skills for her/him to keep up with these changes in health care and maintain current competencies (Huggins, 2003; Gallagher, 2007; Riitta-Liisa et al, 2007).

Evidence based practice provides the tools with which to practice excellent care. Hodge, Kochie, Larsen and Santiago (AACCN, 2003) describe the application and implementation of evidence based practices into the clinical practice in critical care units. They identify a gap that exists between evidence based practice and the implementation thereof in clinical practice. According to Briggs (2006) and Ryan (2003), this gap can be minimized by a well structured CPD program that builds on the foundational courses. Continuing professional development (CPD) is a means of making the critical care nurses aware of latest evidence based therapies which improve patient outcomes, stimulates inquiry, challenges practices and supports holistic lifelong learning (Hendry, 2007; Huggins, 2003).

Within the United States of America (USA) certification process, there are a number of benefits for all stakeholders (Briggs, Brown, Kesten & Heath, 2006). These authors reported that CPD credentialed critical care nurses improve the quality care of patients due to the critical care nurse having developed the necessary knowledge and skills to meet the needs of the critically ill patient. Hospitals promoting CPD have been identified and recognized as providing excellent care which provides a standard for the public (AACCN, 2003). The critical care nurses benefits are the recognition of expertise, professional growth with career advancement and job satisfaction (Huggins, 2003).

On the other hand, Riitta-Liisa et al (2007) reported that “following registration, many European countries report limited opportunities for continuing education and specifically for postgraduate studies in intensive care nursing”. Australia followed the USA certification process. Hegney, Tuckett, Parker and Robert (2009) in their study identified challenges with CPD regarding rural versus metropolitan issues, for example, access to

CPD due to geographical locations and distances of ICU and associated costs. The United Kingdom's (UK) National Health System invested large sums of money into their CPD system and the review on the return on their investment was not favourable (United Kingdom Central Council for Nursing, Midwifery and Health Visiting, 2000). According to Plager and Razaonandrianina (2009) Kenya and Tanzania, in comparison to Madagascar, have 'more well-developed systems of nursing education and professional development.'

In South Africa, SANC is the statutory regulatory nursing body. The Department of Health with the Department of Education share an educational partnership with SANC. SANC's main function is to protect the public. Functions include regulation of nursing training and education, prescribing and regulating the practice of nursing, issuing of qualifications and managing licences' to practice (SANC, 2008). In South Africa, reference to promoting a CPD program for nurses is stipulated by the Department of Health's Nursing Strategy for South Africa 2008. The Department of Health also indicates that the SANC is required to regulate CPD for nurses, with the national and provincial Department of Health as implementation partners (2008). The South African Qualifications Authority (SAQA) unit standard, no. 252146, supports CPD development in nursing (SAQA, 2007). Currently there is no regulation of CPD post registration.

The Nursing Charter (SANC, 2004) proposed changes to nursing qualifications and scope of practice which are undergoing legislative change. These changes are to align South African nursing education and practice with international levels. Provision for CPD is included in the Nursing Charter and provides for self directed life long learning (SANC,

2004). The re-alignment of nursing qualifications is seen as a positive step to improving and standardizing the initial competencies of nurses.

SANC reports that there is an increase in the total number of qualified registered nurses from 2008 to 2011. However, these statistics do not reflect how many nurses are still actively practicing, nor how many are in ICU's (SANC, 2011). In spite of the reported increase, the demand for healthcare is not yet being met nationally (Department of Health, 2008). This shortage can be attributed to the emergence of new type of chronically critically ill patients. Medical and pharmacological advancement has prolonged the life span of patients who previously would not have survived, for example cardiac and oncology diseases and this increases the demand for critical care nursing. The shortage of critical care nurses leads to an increase in overtime being worked, which can lead to stress related illnesses in the already performance stretched critical care nurse (Bhagwanjee & Scribante, 2008).

Benner (1984) describes the five stages of developing from a novice to an expert with the process requiring mentors to transfer knowledge and skills, provide guidance and support of the novice nurse. The aging nursing population, who are the current experts and mentors, is a growing concern according to statistics published on the SANC website. The shortage of critical care nurses leads to newly qualified registered nurses being placed in ICU without the necessary knowledge and skills. The shortage of nurses restricts time to mentor and inhibits the development of the new critical care nurse, leaving her/him in a limbo state of novice. The shortage of critical care nurses and lack of continuing education of new critical care nurses poses an increased risk to patient safety and quality care.

1.3 PROBLEM STATEMENT

There is no recognized or accredited CPD program for critical care nurses in South Africa.

Rapid advancements in the health care field can be overwhelming to the critical care nurse and the shortage of critical care nurses weakens the mentoring of critical care nurses. This leads to incompetence, increased errors and risk to critically ill patients. Nursing managers and ICU unit managers have expressed their concerns as to these risks to the researcher.

The lack of professional growth of critical care nurses from having no CPD programs may be a contributing factor to what Scribante and Bhagwanjee (2007) refer to as “the knowledge of ICU nurses in South Africa in a number of clinical areas is lower than the acceptable standard” and that there is “little difference between the knowledge of ICU-trained and non-trained nurse” as well as “poor correlation between knowledge levels and years of experience”. According to the American Association of Critical-Care Nurses (2008) “As issues relating to patient care become increasingly complex and new technologies and treatments are introduced, critical care nurses will need to become ever more knowledgeable”.

Critical care nurses require the support of a CPD program to provide quality ICU care. CPD programs do not necessarily determine competency as was referred to by Alspach (2008) nor do they necessarily lead to competency, however, they can support, guide and encourage the experienced and inexperienced critical care nurse to provide better patient care (Gallagher, 2006).

1.4 PURPOSE OF THE STUDY

The purpose of this study is to describe critical care nurses opinions regarding CPD, the current extent of their participation in CPD programs and their perceived barriers to CPD programs.

It is foreseen that the outcome of the research may provide for points of consideration for the development of a CPD program for critical care nursing in South Africa. It was expected that critical care nurses would describe their opinions of CPD as a nursing speciality and as individuals, which in turn will enhance ICU quality patient care and outcome.

1.5 RESEARCH OBJECTIVES

The objectives of this study were to:

- To describe critical care nurses opinions regarding CPD
- To determine critical care nurses current extent of participation in CPD programs
- To describe critical care nurses perceived barriers to CPD programs

1.6 SIGNIFICANCE OF THE STUDY

It is envisaged that this study will provide information to consider in developing a CPD framework to support critical care nurses with life long learning. SANC is in a transformation phase which provides an opportunity for South African critical care nurses

to review CPD and have a voice on CPD for critical care nursing. It is hoped that the results, when published, will provide a point of departure for developing a CPD program specifically for critical care nurses. The development of a CPD program based on critical care nurses opinions is seen to support critical care nurses and add value to the profession.

1.7 PARADIGMATIC PERSPECTIVES

Polit and Beck (2012) describe a paradigm as “a world view, a general perspective on the complexities of the world” and furthermore “paradigms should be viewed as lenses that help to sharpen our focus on a phenomenon, not as blinkers that limit intellectual curiosity” (2012).

A paradigm is described by Brink (2001) as “a set of assumptions about the basic kinds of entities in the world, assumptions about how these entities interact, assumptions about the proper methods to use for constructing and testing theories about these entities”. Brink (2002) further explains the “metaparadigm of each discipline specifies its distinctive perspective”.

1.7.1 Meta-theoretical Assumptions

Meta-theoretical assumptions according to Polit & Beck (2012) are views, though not testable, are considered to be true. Nursing is composed of four main concepts, namely, “person, health, environment and nursing” (Brink, 2001). The study is based on the researcher’s meta-theoretical assumptions regarding these four concepts.

The person

The person herein refers to the critically ill patient, the patient's significant others, critical care nurses and multidisciplinary team. The person is a unique individual and is recognized as a holistic being, composed of body, mind and spirit. The person is part of a family, community and society. Furthermore the person is integrated and interactive with their health, environment and nursing. The critically ill patient in ICU is the central focus of critical care nursing and an advanced level of nursing care is provided daily on a twenty four hour basis (Bench et al., 2003). The critical care nurse is thus a constant in the ICU whereas the multidisciplinary team, including the doctor, are intermittently present in the ICU. Subsequently, the critical care nurse is the principal healthcare provider for the critically ill patient. Patient's significant others encounter stressful situations, fears and anxieties, while their loved one is in ICU and the critical care nurse provides support, encouragement and reassurance to them as well. To effectively meet the continually challenging and changing needs of critically ill patients, the critical care nurse is required to be competent, multi-skilled, with up to date knowledge and skills to improve patient outcomes (Ball & McElligot, 2003). Due to medical advancements, patients are older, have multiple and chronic disorders and an enormous amount of new technology with which to nurse them. The critical care nurse needs to maintain and develop her/ his knowledge and skills, thereby improving themselves personally, professionally and practically (Ellis & Nolan, 2004).

Health

Health is the body, mind and spirit being in a state of ease, where ease is both a well balanced and functioning homeostasis state. Dis-ease is the body, mind or spirit not being in a state of ease due to factors related to the internal or external environment of the

person. Critically ill patients, due to their unstable condition, are dependent on the critical care nurse to holistically assist them to a more stable state, or, in their dying. Patients and significant others are supported and educated to cope with the patient's phases of recovery and in some instances, dying and death. The competencies needed by critical care nurses are driven by the ICU patients and community's health, their internal and external environments, and their ICU health care needs. The shortage of nurses increases the critical care nurses workload and impacts on her/ his health and competencies and consequently increases the risks to patients. The critical care nurses need to build their knowledge and skills to deal with emerging diseases, advances in medicine and technology and the dynamic interactions of health care and environments.

The Environment

The environment is composed of the internal and external environment. In the ICU the multidisciplinary team primarily focuses on healing the haemodynamically unstable body and at a later stage of recovery may address the patient's mind and spirit. However, the critical care nurse is responsible for ensuring a therapeutic environment in the ICU within which to provide comprehensive holistic nursing care to the seriously ill patient. The complexities and risks in an ICU related to patients' diseases, technology, practices and colleagues, requires the critical care nurse to keep abreast of latest developments. The ICU is a learning environment and provides for learning opportunities for the critical care nurse in all phases of her/ his development.

Nursing

Critically ill patients need to be able to entrust critical care nurses with their lives. Patients' significant others need to know that their loved ones are cared for by competent and honest critical care nurses. The critical care nurse needs to sensitively implement the scientific nursing process in holistically caring for the critically ill patient in ICU. Evidence based practice provides the critical care nurse with the tools with which to effectively and efficiently carry out her / his work. The expanded role of the critical care nurse requires critical thinking skills to correctly interpret and analyse information, make accurate decisions and judgements, plan for and implement various complex interventions, evaluate the response thereof and reduce risks (Harris, 2002). Once working in the ICU after registration, the critical care nurse is faced with an overwhelming continual amount of new information to process and master. Inexperienced nurses in ICU need to be mentored and coached to develop their knowledge and skills to develop competency (Benner, 1984). The critical care nurse needs support and development during the shortage of nurses, to retain and recruit nurses. The synergy model of nursing care matches the competency of the nurse to the needs of the patient thus providing quality patient care and improved outcomes (Bench et al, 2003). Knowledge and skills development provides for career and professional development of the critical care nurse and the speciality nursing of critical care. Lifelong learning is a characteristic of a professional and a profession. The benefits of continued learning have reciprocal benefits on ICU patients' outcomes.

1.7.2 Theoretical Assumptions

The following theoretical assumptions derived from the literature review in relation to lifelong learning, competency, complexities and the expanding role of critical care nursing,

shortage of nurses, continuous professional development and improved patient outcomes are applicable to this study:

- Lifelong learning improves quality patient care and personally and professionally enriches critical care nurses and nursing
- Competency reduces risks to ICU patient care, promotes trust in critical care nurses and nursing, provides for standards of practice and promotes accountability
- Complexities and the expanded role of critical care nursing requires a high degree of current knowledge and skills to effectively and efficiently nurse the ICU patient
- The shortage of critical care nurses increases the workload and need for competencies of critical care nurses
- Continuous professional development provides for self-directed lifelong learning, development of the nurse and nursing speciality and improves patient outcomes
- Improved patient outcomes is dependent on the critical care nurses current competencies

The main theoretical statement is that ICU patients and their outcomes are dependent on the critical care nurses competencies based on her/ his opinion of lifelong learning, opportunities, participation and barriers related to continuous professional development. This directly influences the ICU patients' outcomes, the personal and professional development of the critical care nurse and the speciality of nursing.

1.7.2.1 Definitions of Terms for the Purpose of this Study

Intensive Care Unit (ICU) - A specifically designated unit, with specialised equipment and skilled personnel for the care of critically ill patients requiring immediate and continuous attention; that admits patients with any organ disease, disorder or injury, has a high nurse to patient ratio, invasive monitoring and uses mechanical and pharmacological life sustaining therapies for patients that are medically unstable, critically ill or require emergency interventions (Department of Health, 2008). For the purpose of this study, “Intensive care unit” and “critical care unit” will collectively be referred to as “Intensive care unit”. Critical care nurses working in ICUs from public and private healthcare organizations in Gauteng that attended mini symposiums conducted by the Gauteng branch of the Critical Care Society of Southern Africa are to be utilised for this study.

Level 2 ICU - “Patients requiring more detailed observation or intervention including support for a single failing organ system or postoperative care and those stepping down from higher levels of care”. (Intensive Care Society, 2009).

Level 3 ICU - “Patients requiring advanced respiratory support alone or basic respiratory support together with support of at least two organ systems. This level included all complex patients requiring support for multi-organ failure” (Intensive Care Society, 2009).

Critical Care Nurse (CCN) - A person registered as a nurse by the South African Nursing Council, who has undergone an advanced education and training programme in the speciality, and has the direct responsibility for caring for patients in the ICUs (SANC, 2004). The critical care nurse functions within a scope of practice as determined by the

Nursing Act 33 of 2005. For the purpose of this study ICU qualified and registered nurses with more than six months experience working in ICU will be referred to as “critical care nurse”.

Continuing Professional Development (CPD) - CPD characteristics, as defined by the Nursing Charter, include exploring and using opportunities for professional development; identify own learning needs for improving practice, and enhancing professional knowledge by participation in self-directed learning activities aimed at broadening knowledge base for professional practice; assuming responsibility for lifelong learning and maintenance of competence; contributing to the education and professional development of students and colleagues; act as an effective mentor; take opportunity to learn together with others contributing to health care (SANC, 2004).

Competency – is defined as “specialist knowledge needed to do a particular job” properly (Harvey, 2011). Competency is complex and has numerous variables in determining a successful outcome, for example, language differences, time to develop competency, previous experiences, numerous solutions to problems, assessment tool and interpretation thereof. Harvey further explains “Competence itself is only of value as a prerequisite for performance in a real clinical setting and does not always correlate highly with performance in practice” and the more experienced the person is being assessed, “the more difficult it is to create a tool to assess their actual understandings and the complex skills of the tasks they undertake” (2011). Competency development is based on Benner’s five stages of development of novice to expert, the stages being novice, advanced beginner, competent, proficient and expert (Benner, 1984).

Opinions – are a “belief or conclusion that is held with confidence but is not substantiated by positive knowledge or proof” (online dictionary, 2011). Opinions are subjective, personal and influenced by numerous variables, for example, previous experience, attitude, interpersonal relations, situations, peer opinions and communication. Trends can be identified from opinions of groups. For this study the term opinions will refer to critical care nurses knowledge and understanding of CPD.

South African Nursing Council (SANC) - The nursing regulatory body of South Africa. Functions include registration of training and qualifications, provision of regulations governing practice, regulation of professional conduct, disciplinary measures and management of annual license fees to practice. SANC does not provide for CPD after registration (SANC, 2004).

Expert nurse - Jasper (1994) offers a concept analysis of expert with the definition that it is a person with a ‘specialised body of knowledge and/ or skill, and extensive experience’. Benner’s model of novice to expert (1984) describes the expert nurse as one who has an intuitive grasp of each situation and zones in on the accurate region of the problem without the wasteful consideration of a large range of unfruitful alternative diagnoses and solutions.

1.7.3 Methodological Assumptions

Methodological assumptions “are the basic underlying truths from which theoretical reasoning proceeds” based on the researcher’s views and approach to the research method, design and validity (Brink, 2001). The researcher believes in a holistic approach to patient

centred centre and a functional approach to nursing research. Nursing is essentially a practice based profession, thus research is aimed at generating new, refining current and updating or eliminating old knowledge and practices. Nursing research is expected to provide for an improvement in nursing practice and patient outcomes. By following a functional approach to critical care nursing research, nursing develops its scientific, evidence based practice, to develop competencies and improve patient outcomes in the ICU. The researcher's aim with this study was to generate new knowledge that can be useful and applicable to support and develop the critical care nurse, improve critical care nursing and patient outcomes.

1.8 OVERVIEW OF RESEARCH METHODOLOGY

The research was quantitative in design. A non experimental, descriptive survey approach was used for this study. Ethical clearance and permission to conduct the study were obtained from the university's relevant committees and the Gauteng branch of the Critical Care Society of Southern Africa (GCCSSA). The research design comprised two phases, namely, phase 1 as evaluation of the proposed data collection instrument (a questionnaire) and phase 2 as the survey study (Brink, 2001). This type of design promotes the validity and reliability of the research by evaluating the data collection instrument before implementation in the survey study (Lynne, 1986).

The first phase evaluated the content and internal validity of the questionnaire by using a panel of critical care nurse experts in Gauteng. A non probability purposive sampling method was used to select ten critical care nurse experts (Benner, 1984; Jasper, 1994) to evaluate the validity and reliability of the data collection instrument. Ten experts who met

the inclusion criteria were invited to participate and eight experts participated on the panel which according to Lynne's model (1986) was sufficient. These experts practice and are located in the Gauteng province. Data was collected by using a four point Likert rating scale of 1- 4, to individually rate each question to determine if the questions were relevant and represent the critical factors for critical care nursing CPD. From the panels evaluation minimal changes related to wording and sentence structure were done to the questionnaire. Their evaluation of the questionnaire was essential to the second phase of the study. Data collection from this phase was not included in the data analysis.

The second phase was conducted at three (3) mini symposiums held at various locations in Gauteng and conducted by the GCCSSA. The geographic locations of the mini symposiums allowed for a representative population of critical care nurses working in level 2 and level 3 ICU's. There was no cost to the critical care nurse to attend the mini symposium and refreshments were provided by the GCCSSA. The topics, ventilation and blood gases, presented at the mini symposiums were the same for each mini symposium and relevant to the critical care nurse. This phase used a purposive sampling method to represent the population of critical care nurses and assesses the predictive and constructs validity. Critical care nurses, working in level 2 or level 3 ICU's, either permanently or non permanently, in public and/ or private hospitals that attended these mini symposiums were sampled. A target sample of 100 was determined and 100 questionnaires were distributed with 71 returned (n=71). Data collection was by means of a self administered, structured questionnaire, sub-sectioned according to the research questions, with close ended questions. Before handing the participants the questionnaire to complete, the researcher asked each critical care nurse as to the level of ICU that they worked in and had the opportunity to briefly explain the aim of the research and the importance of clearly

completing the questionnaire in full. This process facilitated the completeness of the returned questionnaires. The researcher maintained integrity of the study by distributing, collecting and storing the questionnaires herself at all three mini symposiums. Data analysis was by descriptive, inferential and stepwise logistical regression statistical methods. Statistical support was consulted to assist with the analysis and interpretation.

1.9 ETHICAL CONSIDERATIONS

The following ethical requirements were taken into consideration:

- Protocol was submitted for peer review to the Department of Nursing Education to assess the feasibility of the study.
- Protocol was submitted to the University Postgraduate Committee for permission to conduct the study.
- Application was granted for clearance to conduct research by the Committee for Research on Human Subjects (Medical) of the University of the Witwatersrand (Appendix A:135).
- Applications were sent to experts in critical care nursing to participate in phase 1 (refer Appendix C:137)
- Informed consent was obtained from the each expert to participate in phase 1 (refer Appendix D:138)
- Applications were submitted to the Gauteng branch of the Critical Care Society of Southern Africa for permission to collect data at three mini symposiums (refer Appendix H:152)
- Before inclusion into the study, a written informed consent was obtained from the participating group of critical care nurses (refer Appendix J: 155)

- To ensure confidentiality and anonymity of the participants, code letters and numbers were used during data collection and reporting.
- Participation in the study was voluntary and participants were allowed to withdraw from the study at any time without prejudice.
- Data was stored and will be destroyed by the researcher after the required time frame
- Confidentiality was further ensured by only allowing the researcher, her supervisor and the statistician access to the data

1.10 SUMMARY

In this chapter the reader was introduced to the study, the background, and problem statement, purpose of the study, research objectives and the importance of the study. The paradigmatic perspectives and relevant definitions were described. An overview of the research methodology was given including ethical considerations. The next chapter will review literature related to CPD in critical care nursing.