

**PERCEPTIONS OF STUDENTS AND NURSE EDUCATORS ON THE
INTEGRATION OF THEORY AND PRACTICE IN NURSING EDUCATION IN
SWAZILAND: AN EXPLORATORY- DESCRIPTIVE STUDY**

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By

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DEDICATION

This dissertation is dedicated to my family:

Matete, Welile and TemaSwati.

ACKNOWLEDGEMENTS:

I am eternally grateful to my Lord Jesus Christ for His abounding love and grace; enabling me to do all things through Him as He strengthens me.

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DECLARATION

Except for referenced citations in the text, this is the researcher's original work and has not been submitted for a degree in this or any other university.

Signed:

Student: _____ Date: _____

Supervisor: _____ Date: _____

ABSTRACT

Background: The gap between theory and practice in nursing has long been regarded as controversial and has been a much debated subject in literature. The disparity between theory and practice in nursing education has been attributed to, among other factors, the move of nursing education from hospital-based training to higher education. Attempts to bridge the gap have been recorded in literature, including the introduction and use of problem-solving learning approaches that are regarded as reflective; learner-centred and promote lifelong learning. With this transition, there is confusion concerning the role of the nurse educator in clinical teaching which further compounds the problem of integrating theory and practice in nursing education. Nursing education in Swaziland has also experienced the transition from the hospital-based model to higher education in the late nineties. Issues regarding the competence of nurses have emerged with complaints from the local media and the general public about nursing services declining in quality.

Purpose: This study was aimed at exploring and describing the perceptions of students and nurse educators regarding the integration of theory and practice in nursing education in a Higher Education Institution in Swaziland. The ways in which theory and practice integration is facilitated in this university were explored with the perceived barriers that are thought to deter the integration.

Methodology: A quantitative approach was employed in this study with a total of 167 participants. Of these, 151 were students and 16 were nurse educators. Two self-administered questionnaires were developed for each group. Reliability and validity of these instruments was measured and the α -coefficient of 0.74 and 0.83 were achieved for the students' and

educators' instruments respectively. Data were collected and then analysed using the SPSS package, Version 15.0.

Findings: Results of this study revealed the existence of the gap between theory and practice in nursing education in Swaziland. Clinical nursing education was found to be an essential component in the training of nurses, however the role of the nurse educator in the integration of theory and practice remained contentious. It was also discovered that no clear guidelines or protocol regarding clinical supervision were available in the country, hence nurse educators conducted clinical supervision as they saw fit. Barriers to the integration of theory and practice were explored, and it was established that the lack of resources and supplies, more particularly in the practice setting stood out as the primary obstacle. It emerged from the study that problem-solving pedagogic approaches are essential in the integration of theory and practice. Furthermore, inadequate student support structures in the clinical setting also emerged as barriers coupled with poor communication and professional relations between the university and the practice settings.

Recommendations: The establishment of a university hospital or a partnership with a health care institution where the value of clinical practicum for students would be enforced was one of the recommendations. Furthermore, it was suggested that the nursing department use process-based curricular approaches to teaching and learning which may enable students to be more reflective and more self-directed in their learning process. It was also suggested that the clinical skills laboratory be more self-directed, with students learning how to conduct clinical skills with minimum guidance from the facilitator.

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INTRODUCTION

1.1 BACKGROUND

Theory-practice integration in nursing education has long been regarded as complex and as a subject of much controversy (Evans, 2009; Ousey and Gallagher, 2007; Haigh, 2009). Corlett, Palfreyman, Staines and Marr (2003) agree that the term ‘theory-practice gap’ is often imprecisely defined and is subject to different individual interpretations. McCaugherty (1991) contends that the theory-practice gap is a result of several factors and is convinced that the bridging of theory and practice in nursing education is possible, and can be addressed with an ingeniously planned curriculum design. It can be assumed that the debates surrounding the theory-practice gap have remained a matter of perception, and are dependent on one’s ability to support one’s view (Corlett, 2000). Allmark (1995) highlights that the theory-practice gap is only perceived as a problem simply because it’s built on an irrelevant assumption that theory must inform nursing practice. Allmark further argues that nursing is practice, not theory. McCaugherty refutes that claim stating that, “theory without practice is sterile, and practice without theory is blind” (1991, p.1061). The tension between nursing theory and practice experienced by students (Haigh, 2009) is viewed as being a result of the discrepancy between what is taught in the classroom and what is experienced in the clinical setting (Corlett, 2000; Evans, 2009).

The movement of nursing education from hospital-based education to the university model has had a number of effects on students’ performance, and on their perceptions of nursing practice (Barret, 2007). Several researchers (Lindgren & Athlin, 2010; Barret, 2007) agree

that this transition has produced a number of challenges for all involved in nursing education; the nurse educators and the students, as well as the clinical nurses. Nurse educators have also been considered to be experiencing conflict with regard to their role in clinical education (Ousey & Gallagher, 2010). Lindgren and Athlin (2010) view the clinical nurse as also having developed a dual role: to supervise students whilst carrying out high quality care for patients which can be demanding and frustrating. In the light of all the confusion, the change to the university model in nursing education was aimed at improving nursing as a profession and elevating it to ensure high quality nursing skills, by integrating theory, practice and research (Biley & Smith, 1998) with emphasis on the acquisition of knowledge and skills through critical thinking and problem-solving, rather than solely depending on the amount of time spent at the bedside as the only indicator of students' competence (Elliot & Wall, 2008). This transition meant that nursing education moved from being product-based to a process-oriented curriculum approach (Mallaber & Turner, 2005), and from didacticism to learning facilitation (Banning, 2005).

Nursing education occurs in many settings. Kelly (2007) identified the four main settings as being those of the classroom, the skills laboratory, the clinical area and seminars. Severinsson (1998) indicated that it is in the clinical setting that students have a chance to integrate theory and practice so that they learn and understand the unique nature of nursing as caring. Tiwari, Chan, Wong, Wong, Chui, Wong, and Patil (2005) also affirm that clinical education is a critical link between university education and professional practice which offers a chance for nursing students to apply knowledge attained at the university in the clinical area. Ousey (2000) agrees that the clinical learning environment remains the most essential resource in the development of competent, capable and caring nurses.

According to Hickey (2010), the importance of clinical competence is imperative for professional registration, and he proposes that nursing education must reconsider the academic and clinical preparation of nurses. Furthermore, Hickey defined clinical competence as theoretical clinical knowledge employed in the practice of nursing, incorporating the performance of psychomotor skills as well as problem-solving abilities. These capabilities are essential because students will, in their professional lives as nurses, constantly find themselves confronted with circumstances that will require them to make appropriate decisions and actions (Jerlock, Falk & Severinsson, 2003). Therefore, effective preparation of student nurses through theory-practice integration is essentially critical, so that they can be ready to face the demands of the profession in the future (Jerlock et al., 2003).

Literature highlights other factors contributing to the theory-practice gap. Cave (2005) pointed out that there is inadequate time to support academic staff in keeping up to date with the latest developments in clinical settings. According to Cave, this poses a challenge, because students may be taught outdated theory which is no longer in line with current practice. Contrarily, Elliot and Wall (2008) believe that academics can keep up with current practice through attending workshops and conferences, and through the review of literature. Furthermore, nurse academics can rather focus on updating their theoretical knowledge and skills than their capacity to perform as experts; hence they are called 'nurse scholars' rather than 'nurse clinicians'. Fisher (2005) suggests that nurse educators must strive to maintain clinical currency and awareness rather than clinical credibility and competency.

Additionally, Cave (2005) assumes that the amalgamation of nursing colleges with universities can be seen as a challenge. The clinical areas may be spread over wide geographic areas, increasing travelling time and reducing clinical time for both the students

and the nurse educators. Additionally, upon reaching the clinical setting, more time is spent addressing problems and concerns, instead of actual clinical teaching and supervision. Cave (2005) states that if these problems are not addressed they may widen the theory-practice gap.

Literature shows that attempts to integrate theory and practice are being made. Some of the interventions done include revisiting the curriculum (Allan, 2010; Duffy, 2008); the strengthening of clinical education as an essential aspect of nursing education and reviving the relationship between the nurse educators, learners as well as clinicians (Henderson, Heel & Twentyman, 2007; Evans, 2009; Baxter, 2006), and the use of experiential, problem-solving learning approaches such as problem-based learning (PBL), Community-based education (CBE), Competency-based learning (CBL) (Ehrenberg & Häggblom, 2007; Corlett et al., 2003; Kelly 2007).

With the advent of the academic model in nursing education, Meskel, Murphy and Shaw (2009) contend that many initiatives aimed at integrating theory and practice in nursing education were directed to the role of the nurse educator. These include the reform in teaching and learning approaches in nursing education, which transformed the role of the teacher from the traditional model of being the 'all-wise, know-all' transmitter of information to a facilitator of learning. These teaching and learning approaches include PBL (Ehrenberg & Häggblom, 2007; Tiwari et al., 2006), CBL (Baxter, 2006), and CBE (Mellish, Brink & Paton; 2003), guided reflection (Duffy, 2008). Common to all these approaches is that the teaching and learning process is student-centred, learners use problems or experiences from real life situations as the basis for the didactic process, and that the forms of learning used are experiential, and are reflective, hence renowned for integrating theory and practice in nursing education. These teaching and learning strategies equip learners with critical thinking and

problem-solving skills, preparing student nurses for practice in the future as competent, independent and proficient practitioners, and are based on andragogy and constructivism as their underpinning theories (Chikotas, 2008). Countries such as the UK, Australia, Canada, Sweden and Hong Kong have implemented educational programs aimed at directly addressing the issue of the theory-practice gap (Ehrenberg & Häggblom, 2007; Tiwari et al., 2006; Cave, 2005), hence making theory-practice integration in nursing education a worldwide concern.

1.2 STUDY CONTEXT

The study was conducted in the kingdom of Swaziland. Swaziland is a landlocked country with South Africa surrounding almost the entire country but the eastern part which is proximal to Mozambique. It is 17364 km² in size, (WHO, 2006) with a population of 1,337,186 (Swaziland demographics, 2009). Basically, Swaziland is comprised of a homogeneous population with SiSwati as the only vernacular language and English as the official language. According to WHO (2006), in 2005, the total number of nurses and midwives in the country was 6328, while the total number of health care workers was 12014. This means that the nursing cadre forms more than half of the entire health care workers in the country.

Kober and Van Damme (2006) state that nurses are trained at two institutions in the country. One nursing school is situated within the compound of a mission hospital and the other has amalgamated to become part of the University of Swaziland. Another nursing college trains only enrolled nurses, and is located in the confines of another mission hospital in the eastern region of the kingdom.

The University of Swaziland (UNISWA) is the only university in the country. Established in 1964 as the University of Basutoland, Bechuanaland and Swaziland, it developed into the University of Botswana, Lesotho and Swaziland (UBLS) until 1982, when it gained its independent status and became the University of Swaziland. UNISWA is comprised of three campuses; Kwaluseni is the main campus, Luyengo Campus is the faculty of Agriculture and Home Economics. With the advent of higher education in nursing education globally, The Institute of Health Sciences (IHS) was amalgamated to the University of Swaziland as the third campus (the Faculty of Health Sciences) in January 1997. This campus is located in Mbabane, the country's capital city, next to the Mbabane Government Hospital (the country's main referral hospital). It is in this health facility where nursing students conduct most of their clinical practicum, as well as in other health care facilities in the kingdom.

The Faculty of Health Sciences (FHS) has two major departments; Nursing and Environmental Health. Within the Nursing department there are three departments, General Nursing, Community Health Nursing and the Midwifery department. Currently, the faculty offers only an undergraduate course however, in time, postgraduate courses will be offered. Basic nursing training lasts three years, then an additional year for post-diploma certificates in Midwifery or Community Mental Health Nursing. Following the transition of nursing education to the academic orientation, a five year Bachelor's Degree programme was introduced, with Medical-Surgical Nursing and Community Health Nursing as the majors. Those students with a three-year Diploma in General nursing are required to do two years to obtain the Bachelor's Degree which includes the one other speciality either in Midwifery or Community Mental Health Nursing. The first nursing graduates were awarded their degrees in 2002 (UNISWA, 2004). Currently, the total number of nursing students in the University is 423 (FHS, 2010). The faculty comprises 28 lecturers, with 20 from the nursing departments.

Collectively, there are 26 nurse educators, comprising 20 lecturers, five (5) teaching assistants and one (1) clinical skills lab facilitator (FHS, 2010). This study will only focus on the Nursing departments.

According to the Swaziland Nursing Council (SNC), nursing educators are responsible for clinical supervision. They are expected to be in the clinical setting for as long as students are allocated for clinical practicum. However, it is not clearly stipulated as to how long a supervisor should spend with each student in the clinical setting. The total number of hours for nursing students' exposure in the clinical setting is 362 hours for the first year student, 696 hours for the second year student and 912 hours for the third year Nursing student. The Bachelors' student is expected to spend a total of 696 during the two years of his/her training, which means that the total number of hours a student nurse is exposed to before registration as a graduate is 2666. For the Midwifery student, competence is measured by the competencies in a number of cases and procedures that she has to accomplish during her training period.

1.2 PROBLEM STATEMENT

Literature reveals that the theory-practice gap in nursing education has been longstanding and that attempts to bridge it have not been entirely successful (Evans, 2009; Kelly, 2007; Corlett, 2000). With the advent of higher education, nursing education has moved from training and service orientation to an academic model (Corlett, 2000; Saarikoski et al., 2009), and it is believed that the transition has widened the gap between theory and practice in nursing education (Kelly, 2007; Evans 2009). Mannix, Wilkes and Luck (2009) affirm that the transition has engendered debates regarding the perceived benefits and failings of the current

nursing education system. Kelly (2007) agrees that the issue of the theory-practice gap raises concern about the graduates produced who are “not fit for purpose” (p. 886) on registration.

Cave (2005) reported that in North America, through the transition of nursing education to universities, the theory-practice divide became significantly worse, as there were fewer rewards for continued direct involvement in clinical care. Elliot and Wall (2008) assert that higher education institutions (HEIs) do not value clinical teaching as they do research, and that there are no rewards for engaging in clinical teaching and practice. Nursing education in Swaziland also shifted from vocational to academic orientation in the late 1990’s. Public outcry about the decline of nursing standards is increasing in local newspapers (The Times of Swaziland and The Observer) with articles revealing information concerning issues of negligence and misconduct by nurses in our local hospitals. Such issues give rise to questions regarding the quality of nurses produced by our nurse training institutions, and generally about nursing education in the country. This study research will therefore enable the researcher to explore and describe the perceptions of student nurses and nurse educators on the integration of theory and practice in nursing education, the barriers to the integration of theory and practice, and possible ways to facilitate this integration in the context of Swaziland.

1.3 RESEARCH PURPOSE

The purpose of this study was to explore and describe the perceptions of student nurses and nurse educators on the integration of theory and practice in nursing education in Swaziland.

1.4 RESEARCH OBJECTIVES

The objectives of this study were:

- a) To describe the nurse educators' understanding of the concept of theory-practice integration in nursing education.
- b) To describe students' perceptions of the theory and practice integration in the university.
- c) To explore ways in which theory and practice integration is facilitated in the Nursing department of the Faculty of Health Sciences at UNISWA.
- d) To describe barriers to the integration of theory-practice in nursing education in the Faculty of Health Sciences (FHS) at UNISWA.

1.5 RESEARCH QUESTIONS

The research questions for this study were:

- a) What is the nurse educators' understanding of the concept of theory-practice integration in nursing education in the country?
- b) What are the students' perceptions of theory-practice integration in the university?
- c) How is theory integrated with practice in nursing education from the department, in the classroom and in the clinical skills laboratory?
- d) How is theory and practice integrated in the clinical setting when students conduct their clinical practice?
- e) What are the barriers to theory-practice integration in nursing education in the department of Nursing in the Faculty of Health Sciences?
- f) What are the barriers to the integration of theory and practice in the clinical setting where students conduct their clinical practice?

1.6 SIGNIFICANCE OF THE STUDY

Literature reflects that there are several factors associated with theory-practice integration in nursing education. Authors such as Allmark (1995) assert that theory-practice integration is a matter of perception. The findings from this study have the potential to provide concrete evidence of the status of theory-practice integration in Swaziland and not just perceptions.

Exploring and describing the perceptions of students and nurse educators is essential, because these groups play a major role in the integration of theory and practice in nursing education, hence the future of the profession lies in their hands. Hickey (2010) agrees that the students' perspective related to their clinical learning experiences is crucial in studying clinical teaching and learning. This is essential for nursing education in the country because the findings of this study can be utilised to create awareness of the factors that facilitate or contribute to the disparities that exist between nursing theory and practice. These could form the basis of the process of reviewing the curriculum in nursing education. The findings could also serve as a reference for further research on nursing education issues since only limited studies of this nature have been conducted in Swaziland.

Recommendations will be made that may further enable the relevant key players in nursing education in the country to take action that will help improve nursing practice, enhancing the production of competent and proficient professional nurses, thus, the health care system may be improved, since the nursing cadre forms 52.9% of the health professionals in the country (WHO, 2006). The study findings can further serve to inform the practice of nursing education in Swaziland, hence improvement in the quality of graduate nurses leading to high quality nursing care. The student nurse may also benefit from the findings of this inquiry

through the integration of theory and practice, which may improve not only their practice but also clarify their appreciation of nursing as a profession.

1.7 CONCEPTUAL FRAMEWORK

The conceptual framework underpinning this study has been developed from the available literature. Burns and Grove (2009) define framework as an abstract, logical structure of meaning, serving as a guide to the development of the study. The major concepts in this framework are: (a) theory, (b) practice, (c) student nurse and (d) integration of theory and practice.

Theory refers to the subject matter of what is taught in the classroom, as available in nursing textbooks or literature. Carper (1978) refers to this as the empirical way of knowing. This kind of nursing knowledge is factual, objective, abstract and general knowledge that is methodically arranged into theories, models and principles that govern the profession (Zander, 2007). *Practice* denotes the actual conduct of clinical nursing skills in the real clinical situation with real patients. It is also regarded as the art or the skills of nursing, which, according to Carper (1978) is viewed as the aesthetic pattern of knowing. The *student nurse* is in the hub of the teaching and learning process in nursing education; and is assisted to integrate these two major concepts. Lastly, the outcome of the process is the *integration of theory and practice*. The broken lines on the outline of figure 1 indicate that the variables may be influenced by other external factors other than the ones mentioned in this framework.

Theory is the science of nursing in this conceptual framework, occurring mainly at the university. As a concept, empirical theory includes all the various components that represent theoretical knowledge and its acquisition by student nurses. The lecturer, as one of the major

key players in this section must know the 'self' as described by Carper. Personal knowing involves awareness of self and others, in a relationship that is subjective, concrete and existential. It requires engagement, active and empathetic participation of the knower (Carper, 1978). Therefore, acquisition of theoretical knowledge occurs in the classroom and in the clinical skills or demonstration laboratory, through the direction and guidance of the lecturer who clearly understands him/herself as an educator, and the others involved in the teaching-learning relationship (students, clinicians and colleagues).

The nursing department's philosophy underpinning the curriculum will influence the individual teacher's educational philosophy. Bode (1931) recognised the function of philosophy as illuminating educational aims and practice. Dewey (1916) defines education as the laboratory in which philosophic characteristics become concrete and are tested. Therefore, the lecturer's philosophy of education will significantly influence his/her pedagogical approach (Brockband & McGill, 2000) and to a greater extent, determine the facilitation and acquisition of such knowledge by students. Petress (2003) agrees that a teaching philosophy can and does affect the teaching and learning process, since it serves to structure, contextualise and focus pedagogical activities.

The use of different teaching methods can influence the integration of theory and practice in nursing education. These include the conventional methods which are basically the teacher-directed learning methods such as the lecture method and demonstration; the student-centred learning methods include PBL, CBE and OBE as forms of experiential and reflective learning. Additionally, the amount of clinical knowledge and competence or currency (Fisher, 2005) the nurse educator possesses will determine the quality of knowledge especially with the clinical skills that student nurses will be subjected to. Landers (2000) agrees that the nurse

educator must be clinically skilled so as to support his/her position in integrating theory with practice. The availability of the learning resources in the clinical skills laboratory and the clinical setting may indicate the quality and relevance of subject matter if it is contemporary or outdated, since nursing and health care is dynamic.

In the clinical skills laboratory, theory-practice integration is facilitated as the students are exposed to self-directed learning while they practice clinical skills in an environment that simulates the real clinical experience (Freeth & Fry, 2005). Additionally, the faculty factors can influence the teaching and learning process, with the sequencing of theory and clinical practice sessions such as the theoretical block system may have an impact on clinical education for students. With the theoretical block system, students are subjected to the acquisition of theoretical knowledge for a specified period of time without clinical practice. After that set time, they then conduct clinical practice for another 'block'. Arguably, such arrangements may become a barrier for certain students who may find it difficult to readily correlate what they learned in class months ago with the practical experience because of the time lag. Ferguson and Jinks (1994) contend that the theoretical block system could not be linked to the practical experience because of the time lag between the implementation of the two.

Regarding **practice**, the art and skills of nursing in this framework, refers to the ability of the student to perform clinical skills in the clinical setting on real patients. It also involves the factors that enhance the performance of such skills. These include, the *clinical environment*; which basically comprises human and material resources. The human resources consist of the *nurse educators* and *clinicians* who not only guide and *mentor* students, but who also *support* and maintain good *relations* to enhance *supervision* and learning. *Clear lines of*

communication are necessary for the relationship between the nurse educator, the clinician as well as the students, to enhance the teaching/learning process and ultimately, the integration of theory and practice in nursing education (Hilton & Pollard, 2005; Kelly, 2007; Saarokoski et al., 2009). Clinical supervision is aimed at influencing students' learning processes (Baxter, 2006; Severinsson, 1998) and is imperative in this framework. Jerlock et al. (2003) assert that the primary goal of clinical nursing supervision is to support the development of students' professional identity, competence and ethical practice. This can be attained provided that the educators' clinical education role is well defined. Clifford (1995) argues that the greatest challenge facing nurse educators is to clarify the nature and purpose of their role in clinical practice. Additionally, clinical skills are essential for the development of nursing practice, and in turn, important for the development of nurse education which ultimately will benefit nursing care.

Time is also another important resource in the enhancement of support given to students in the clinical setting; for mentoring, teaching and guidance of the latter. Corlett (2000) reported that the time allocated to facilitate learning in the clinical setting is not sufficient. This is partly due to the short periods of student placements in the practical sites, yet it is an essential resource in the development of students in the clinical setting. Betchel et al. (1999) argue that although educators may disagree that time spent on theoretical aspects is more valuable than that spent in the practice setting; the realities of nursing practice remain heavily focused upon content related to clinical competency.

Ensuring the availability of *material resources* to enable students to practice what they have learned, and avoiding shortcuts, and accepting the *status quo* is also essential in the integration of theory and practice. The outcome of the successful integration of the theory

and the practice during training, taking into account all the factors that influence either clinical practice or theoretical knowledge, will enable the student to become proficient, competent and be able to practice independently, even post-registration. The entire clinical environment must enhance learning, and therefore, the integration of theory and practice, fundamentally guided by ethical or moral practice.

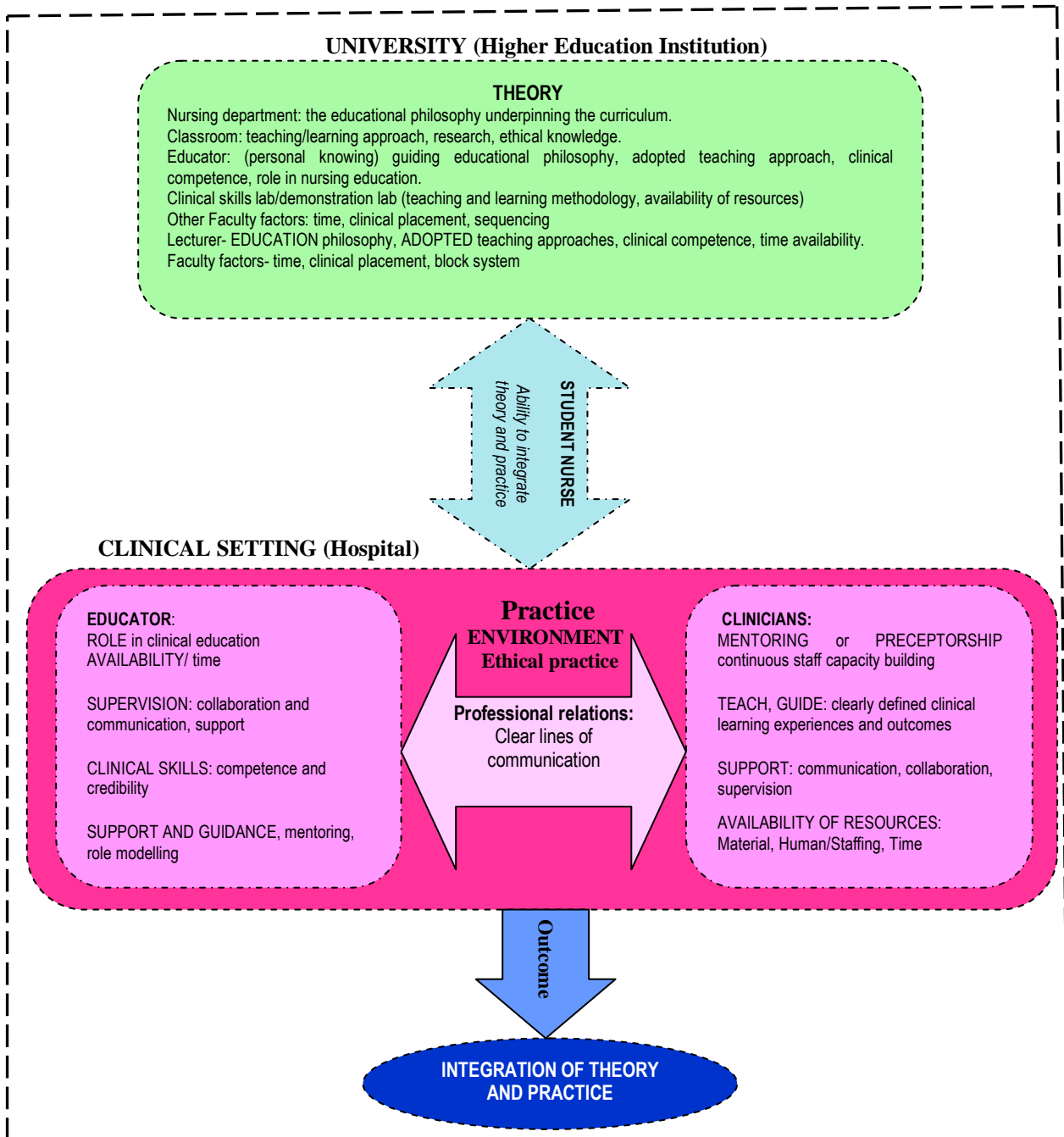


Figure 1.1 Conceptual Framework

1.8 OPERATIONAL DEFINITION OF TERMS

Nurse educator: according to the Swaziland Nursing Council, a nurse educator is a nurse registered with the council who holds a recognised qualification and is currently practising in nursing education. In this study, a nurse educator is a lecturer and/or a teaching assistant from any of the Nursing departments of the University. This term is synonymously used with nurse teacher or lecturer.

Perceptions: refers to the understanding of reality, or the true nature of a situation, the way things are.

Practice: refers to the art of nursing; the performance of clinical skills in the clinical setting on real patients. It can also refer to the performance of nursing procedures at the clinical skills laboratory or the demonstration lab. Therefore in this study, this term is used for both instances.

Student nurse: according to the Swaziland Nursing Council, a student nurse is an individual who is undergoing training in an institution recognised by the council, and whose name appears on the register or roll of nursing students. In this study, student nurse refers to a student registered with any of the nursing departments in the university, and studying full time towards attainment of the available nursing qualifications offered by the University of Swaziland.

Theory: there are many definitions of theory in literature, but in the context of this study, theory is defined as the subject matter and principles taught in the classroom to prepare student nurses for clinical practice. Sources of theory may be textbooks, research articles, dissertations, etc.

Theory-practice gap: in this study, it refers to the discrepancy that exists between what is taught in the classroom and the clinical skills laboratory; the theoretical aspects of nursing and what is practiced in the clinical setting.

Theory-practice integration: in this study, theory-practice integration refers to the merging of what is learned by student nurses in the university with what is done in the clinical area. It is the application of theoretical knowledge in real clinical situations.

Nursing education: in this study, refers to the formal learning and training of nurses comprising of theoretical and practical components of the science of nursing.

1.9 Conclusion

The background of this study established the controversy that exists on the subject of theory and practice integration in nursing education. The theory-practice gap in nursing education is a result of the discrepancy between what nursing students are taught in the classroom and what they experience in the clinical setting (McCaugherty, 1991; Corlett, 2000; Evans, 2009). It is believed that some of the factors that widen the gap between theory and practice in nursing education include *inter alia* the move of nursing education from hospital-based training to higher education, (Barret, 2007; Lindgren & Athlin, 2010) although the main intention of this transition was to improve nursing education as well as the profession (Biley & Smith, 1996; Elliot & Wall, 2008). In Swaziland, nursing education also shifted from the hospital-based training model to higher education in the late 1990s, and ‘accounts of declining nursing standards’ have been reported by the local media. This study therefore was aimed at exploring and describing the perceptions of the students as well as the nurse educators on the integration of theory and practice in nursing education in Swaziland.

1. 10. Dissertation outline

Chapter one presents the overview of the study. The background is presented followed by the study context, problem statement, purpose, research objectives, research questions, the significance, conceptual framework and operational definition of concepts.

Chapter two presents a review of the literature related to the subject under study. A synthesis of related literature on the theory and practice gap in nursing education, the ways in which theory and practice are integrated, as well as the barriers to the integration of the divide are presented.

Chapter three presents the research methodology. A positivist paradigm and quantitative research design was employed in this study, and an outline of how data was collected and analysed is presented.

Chapter four presents the analysis of research findings which was done through the use of the SPSS package, Version 15.0.

Chapter five presents the interpretation and discussion of research findings.

LITERATURE REVIEW

2.1 INTRODUCTION

Literature review is defined as a process of searching, finding, reading, understanding and forming conclusions about published research and theory on a particular subject (Brink, 2003). The purpose of this review is to gather and synthesise literature related to the theory-practice gap in nursing education, ways of integrating theory and practice, the barriers to the integration of theory and practice, as well as the perceptions nurse educators and student nurses have of the problem. A computer-based literature search was conducted on EBSCOhost databases. The databases that were used for literature search included: CINAHL, Medline, ERIC, Africa-wide and Health Source: Nursing and Academic Edition. Through Science Direct other articles were also accessed.

The search was for articles published between 1990 and 2010. This time frame, according to Saarikoski et al. (2009) depicts the era of the transition of hospital-based nursing education into the higher education institution. Renowned and classic articles that were published before the aforementioned time were also consulted for reference. Key terms and phrases used for the search were ‘theory-practice gap’, ‘bridging theory-practice gap’, ‘integrating theory and practice’, ‘nursing education’, ‘perceptions of nurse teachers and student nurses’, ‘clinical nursing education’, and ‘problem-based learning’. The discussion will be on the following sub-topics: nursing theory, nursing practice, the existence of the gap, barriers to the integration of theory and practice, ways of integrating theory and practice and lastly, the conclusion.

2.2 NURSING THEORY

The term theory has been defined by a number of scholars, and different meanings have been assigned to it (Landers, 2000). Ambiguity in its definition is a result of the controversies that surround its purpose and use in nursing (Upton, 1999). George (2000) defines theory as “a creative and systematic way of looking at the world or an aspect of it to describe, explain, predict, or to control it” (2000, p. 596). Nursing theory is defined by Meleis as “...conceptualization of some aspects of reality (invented or discovered) that pertains to nursing” (1997, p. 16). Therefore, the aim of research in nursing is to generate knowledge and build theory which will inform practice (Upton, 1999). Dale (1993) states that the knowledge and comprehension of theory enables individuals to engage in purposeful activities aimed at improving current situations, or preventing unpleasant ones from occurring. This means that nursing is not haphazard; rather, it is planned, deliberate and is based on theory. Tolley (1995) concurs that in addition to the generation of knowledge and informing practice, the purpose of theory is to enhance patient care, which means that the significance of this purpose can only be manifested in practice. Carper (1978) identifies four patterns of knowledge in nursing.

Firstly, the empirics, which is synonymously known as the science of nursing, secondly, the aesthetics, which is referred to as the art or practice of nursing, thirdly, personal knowledge, which is mainly concerned with self-knowledge and the self in relationship to others, and lastly, ethical knowledge, which is linked to moral and ethical decision-making within the discipline (Carper, 1978). Carper contends that all four patterns of knowing are essential and necessary for the professional nurse, however, individually, they are not sufficient to enable one to attain mastery in the discipline. Porter (2010) argues that some patterns have more credence and significance within the discipline than others, particularly, the empirics. Johns

(1995) suggests that to reduce the power of empirical knowledge to its proper place of informing aesthetics (practice) can occur through reflection, and always interpreting it within the context of that particular situation in the process of integrating it with the personal knowledge. Heath (1991) agrees that not all knowledge embedded in expertise can be captured in theoretical propositions. The empiric pattern is regarded as the science of nursing and is concerned with the objective, abstract, and general knowledge that is quantifiable and verifiable through repeated testing over time, and its purpose is to inform aesthetics (art and/or practice) (Johns, 1995).

2.3 NURSING PRACTICE

Practice basically means action, the art or way of doing something. Fealy (1997) postulates that nursing practice is a moral act; it is not just an applied science or skill. According to Upton (1999), theory and practice are not exclusive; they are not to be regarded as units in themselves because they are indivisible. In a review by Tolley, (1995) the purpose of theory is to broadly define nursing, assist in the development of curricular and a common language in nursing, and most importantly to inform practice.

Carper (1978) views the aesthetic pattern of knowing as the art of nursing. Carper describes aesthetics as the nursing art or the skills of nursing and the use of art in nursing practice. The aesthetic pattern is often intangible, and is entrenched in the experiences associated with the practice of nursing (Zander, 2007). Blondoeau (2002) suggests that nursing art as a practical art involves knowledge that directs human activity. Whereas, theoretical knowledge is concerned with the necessary or universals; practical knowledge is manifested in actions; about how things are done and the right relationship between means and ends (Blondoeau, 2002). It is worth noting that the art of nursing or aesthetic knowing is in contrast to empirical

knowing, (Carper, 1978) which can be a barrier to the integration of the two. In light of this contrasting relationship between these two patterns of knowing, Johns (1995) suggested the use of reflection in practice, and the assimilation of personal knowing in the situation, so as to facilitate the integration of the two patterns and reduce the empiric to its appropriate place of informing practice.

Since the practice art of nursing is concerned with both the humanistic nature of both the patient and the nurse, “morality is intrinsic to nursing” (1995, p.255). Additionally, moral knowledge is concerned with benevolence (doing good) and non-maleficence (avoiding harm) rather than theoretical truth (Blondoeau, 2002), therefore it is suggested that artistic knowledge in nursing cannot be divorced from ethical knowledge. Ethical knowing is inherent to personal values, and requires the critical examination of what is desired and valued as one’s moral thread, principles and aims, (Carper, 1978) hence personal knowing is very necessary in the sphere of nursing practice.

2.4 THEORY-PRACTICE GAP: DOES IT EXIST?

Literature reveals that the theory-practice gap in nursing education has been longstanding and that attempts to bridge it have not been entirely successful (McCaugherty 1991; Haigh, 2009; Kelly, 2007; Corlett, 2000). Corlett et al. (2003) gives an orthodox definition of the theory and practice gap in nursing education as the discrepancy between what student nurses are taught in a classroom environment, and what they experience in the practice setting during clinical placements.

Another view that explains the theory-practice gap is depicted as the ‘ideal versus reality’, ‘nursing as it ought to be’ versus ‘nursing as it is’ (Corlett, 2000). Corlett (2000) argues that

students are taught a perfect edition of nursing that is not in-synch with the real version of clinical practice. Ramprogous (1992) agrees that one reason for the theory-practice gap is that in the perfect world of nursing theory, nursing practice is discussed as being executed as it 'ought to be'. What fuels the conflict between theory and practice is the ideal perspective of nursing theory which has little relevance in today's health care.

A qualitative study on student nurses' experiences of clinical practice conducted by Sharif and Masoumi (2005) confirmed the existence of the theory-practice gap as it was raised by student nurses as one of the concerns affecting their clinical practice. McCaugherty argues that the gap has not been precisely described and together with Wilson (2008) and Haigh (2009), concur that the student is the focus of the issue. In a qualitative study done by Corlett (2000) on the perceptions of nurse teachers, student nurses and preceptors of the theory-practice gap; students felt that the discrepancy between theory and practice was huge, while nurse educators thought the opposite. In the same study, teachers felt that the gap was necessary to enable students to develop problem-based learning and reflective skills.

Haigh (2009) argues that the gap between theory and practice is essential for a change in clinical practice to occur, and it indicates that the profession is dynamic, new theories and techniques are constantly being developed and tested. Thus Haigh (2009) warns against treating a theory as a dogma; rather, professionals must acknowledge that theories are fluid and must change, thus the gap must be celebrated as the momentum for progress. On the contrary, Baxter (2006) identified several implications of the theory-practice gap in nursing. First, it negatively affects professional socialisation of student nurses which can lead to "de-professionalisation" (2006, p. 104). The decline of professional standards in nursing care will eventually deter the progression of nursing practice plunging the profession further down.

Secondly, Baxter (2006) states that the presence of the gap hinders the usage of evidence-based nursing which will negatively influence nursing as a profession, as well as patient outcomes.

2.5 WAYS THAT INFLUENCE THEORY-PRACTICE INTEGRATION

With the movement from hospital-based education to the university, an ideology shift from task orientation to critical thinking, clinical decision-making and autonomy of practice have been created (Betchel et al., 1999). These researchers claim that with the transition, two opposite domains have emerged; one theory-based and the other practice-based. Therefore, the challenge revolves around how nursing education can integrate these two spectrums. To maximise holistic learning in nursing, Lekalakala-Mokgele (2010) suggests that a successful paradigmatic shift in nursing education is reliant on the development of the faculty's new teaching roles and new alliances with students and clinicians.

Wilson (2008) views nursing education as the responsibility of the key participants in these formed alliances; the students, universities and the clinicians. Each has an important interdependent role to play in the development of the student nurse. The higher education institution (HEI) is responsible for ensuring that theoretical inputs give precise evidence-based teaching reflecting on contemporary clinical practice. Students are expected to be self-directed in their learning, and the clinicians must support student professional development. Watson (2008) believes that teaching is more than just the transmission of facts, thus a change for non-conventional teaching approaches is necessary to enhance the integration of theory and practice in nursing education.

Non-conventional teaching methodologies in nursing education, particularly student-centred pedagogical approaches have become increasingly popular as a means to integrate theory and

practice. It is believed that these methods equip students with critical thinking abilities and decision-making skills which can be used in real clinical situations (Ferguson & Jinks, 1994). Wilson (2008) asserts that the integration of theory and practice can improve, not only the working and learning conditions for clinicians and students respectively, but will also 'heighten the students' confidence and competence to face future professional challenges. In the pursuit of producing nursing graduates who will be capable of providing competent and effective nursing care, Ferguson and Day (2005) maintain that nursing education practices must be effective too, and must base their curricular and pedagogic decisions on the best available evidence.

With the shift of nursing education from hospital-based training to higher education, innovations in nursing education have led to the implementation of these pedagogic methods as they are believed to regard the learner as being capable of thought, and fully able to participate in the educative process if allowed. Gwele (2005) views the learner as a psychological and social being constantly seeking to find meaning in the world around him, who thus pursues experiences by channelling his actions towards recovering answers. Such approaches include Problem-Based Learning (PBL), Community-Based Education (CBE), Competency-Based Learning (CBL) and more. Common to all these pedagogic approaches is that they are student-centred, problem-solving, experiential and reflective (Gwele, 2005), while PBL in particular has been proven to promote critical thinking which is essential for professional accountability and quality nursing care (Distler, 2007).

2.5.1 Problem-based learning

PBL is conceived as a curricular format that can help narrow the theory-practice gap in nursing education (Chikotas, 2008). Moreover, the World Health Organisation (WHO) has

acknowledged PBL as a useful pedagogical approach in the human sciences. According to Chikotas, (2008) unlike the conventional approaches, PBL applies the principles of experiential learning, stimulating prior knowledge and helps participants formulate new meanings after extensive information seeking regarding a particular problem or subject. Massa (2008) explained that with PBL, the learner is presented with a problem situation from which s/he identifies learning needs and objectives which mirror the real life situation. The basis for PBL is grounded on the integration of ideas using logic, reasoning, empirical and theoretical knowledge, clinical practice as well as intuition; thus students develop reasoning, clinical thinking skills more competently than with the traditional methods, as they become self-directed and collaborative in their learning (Lekalakala-Mokgele, 2010). Literature reveals that some means of bridging the theory practice gap have been explored, and some of the suggested approaches have been tested in different parts of the world.

In Sweden, Ehrenberg and Häggblom (2007) applied the problem-based learning approach in a project on undergraduate students to improve their learning in clinical nursing education. The study revealed that participants generally viewed PBL as positive for clinical learning, as they experienced greater freedom and increased responsibility. Although some students were not familiar with this pedagogical approach, they felt reflection should be stressed by both preceptors and themselves to improve on clinical practice.

Also in Hong-Kong, a similar study was conducted to evaluate the effectiveness of PBL on student approaches to learning in clinical nursing education (Tiwari et al., 2005). The results of the study confirm that through PBL, students reported that they became more motivated, more self-directed in their learning, and that they had a chance to learn about real patient issues. Despite the stress of having to care for actual patients and the heavy learning load, the

study reported that the students were content with this method since what they had learned in theory had more clinical relevance. Furthermore, the students attested to have had a more meaningful and interesting experience, while their learning was personalised, as they were in control of the process. Chikotas (2008) agrees that the complementary nature of theory and practice that promotes conceptual understanding, development of cognitive skills and self-directed learning strategies is established through PBL teaching methodologies.

In the South African context, the South African Nursing Council (SANC) as the Education and the Education and Training Quality Assurance body (ETQA) for the nursing profession has identified PBL as one of the best approaches in the enrichment of the primary health care learning and teaching (Mekwa, 2000). In regard to clinical nursing practice, its application is minimal, as observed by Mekwa, who states that despite the unsurpassed efforts of nurse educators in promoting critical skills acquisition, the skills are not exercised satisfactorily. Lekalakala-Mokgele (2010) conducted a study in South Africa to describe the experiences of facilitators and students in a PBL undergraduate programme in the nursing schools of four universities in the country, and discovered that traditionally trained facilitators experienced challenges with regard to the adoption of this approach. The difficulty occurred mostly in terms of allowing the students to take control of their learning and be self-directed. On the other hand, students who had just been introduced to this approach, especially, the freshmen (first year students) who are still used to the traditional method of instruction from high school, became frustrated, and perceived the lecturers as being lazy. Therefore, Mekwa (2000) suggested that a paradigm shift from both groups is necessary to make PBL successful. In line with this suggestion, Betchel et al. (1999) affirm that a paradigm shift to integrate the new roles of the student and the educator, meantime reducing the traditionalist ideologies is a priority for facilitating holistic learning. Essentially, it is suggested that the

nursing faculty is challenged to formulate varied educational strategies that will augment learning while promoting clinical competency (ibid).

2.5.2 Competency-based learning

With the rapid development of knowledge and technology, competency-based learning, the emphasis of which is on clinical competency was the result (Betchel et al., 1999). The purpose of CBL as a learning approach is to enable students to acquire a specific knowledge base and assimilate the clinical knowledge and skills to provide competent nursing care. CBL profoundly depends on the student meeting established educational outcomes. Therefore, this approach provides a system through which students are evaluated based on the use of knowledge, which is proven with accurate documentation of performed assessments (Betchel et al., 1999). Ironside (2001) however criticised the conventional approaches in nursing education saying that the pre-specified, measurable learning objectives are primed by the educator to channel students to the most essential components of the course or the project, and provide the standard against which learning can be measured, as well as that they are content-driven and teacher-directed, privileging the teacher's knowledge and experience as superior to those of the students; therefore reinforcing the modernist notion of a singular, objective conception of knowledge, truth and rationality.

2.5.3 Clinical skills laboratory

Clinical skills laboratories, traditionally known as the demonstration laboratories have also been seen as another way of reducing the load of the nurse educators by allowing the student nurses to practice clinical skills in a self-directed fashion, ultimately becoming more competent and confident from putting their knowledge into actual practice, therefore, reducing the theory-practice gap (Morgan, 2006). Freeth and Fry (2005) concur that the

clinical skills laboratory can reduce the weight on clinically-based learning, teaching and evaluations, as well as give value through the different pedagogical approaches such as self-directed learning, experiential and reflective learning.

Morgan (2006) asserts that whilst facilitating clinical procedures in the CSL, it is paramount that educators link the theoretical component of the course through demonstrations, role plays, simulations, videos and questioning sessions which assist students to integrate theory and practice. In the study conducted by Morgan (2006) on the use of clinical skills laboratories to promote theory-practice integration during the first practice placement in Ireland, he found that skills learning in a controlled environment assisted in improving students' confidence and competence, and that learning was more efficient and enjoyable. Furthermore, the benefit of the CSL is the ability of students to learn communication and interpersonal skills, and psychomotor skills which are imperative for nursing. Keetsemang, Mugaruma, Shahidi, Maphutege, Chipps and Brysiewicz (2008) suggest that in order to facilitate the learning of these skills, as well as the ability to integrate theory with practice; the CSL must be adequately staffed, especially during busy hours and equipped with the necessary supplies and gadgets.

An exploratory study by Umiwana (2009) on the perceptions of students and nurse educators about teaching and learning in the clinical skills laboratory in Kigali health institute in Rwanda, found that students learned through practicing clinical skills on their own until such time as they felt competent to be assessed. After being declared competent, the students were ready to practice on real clients. Additionally, the study revealed that students indicated that learning in the clinical skills laboratory served to reduce the gap between theory and practice.

2.5.4 Clinical supervision

Forging links with higher education came with the detachment of nurse educators from the clinical area, yet studies have shown that bridging the theory-practice gap may be influenced by clinical supervision (Jerlock, et al., 2003; Baxter, 2006). These authors felt that effective clinical supervision is dependent on the supervisor's competence, and the students' ability and willingness to integrate new knowledge with practical clinical situations. Landers (2000) maintains that nurse educators must be competent in clinical skills, and must accompany students to the clinical area so as to facilitate learning and reduce the theory-practice gap. Ferguson and Jink (1994) view the physical separation of nurse educators from the clinical area as problematic.

Baxter (2006) postulates that the objectives of clinical supervision are to support and enable the student to provide competent nursing care, to ensure patients' safety, to develop relationships with clinicians, as well as to promote the transfer of knowledge from the classroom to the clinical setting, and hence to integrate theory and practice. Baxter suggests further that the persons who will partake in the clinical supervision process (students, preceptors, faculty members and the patients) should be cared for. Additionally, she accentuated that nursing practice and nursing education should care for each other, focusing on common beliefs, goals and principles, as this action might serve to integrate theory and practice. Accordingly, Jones (2003) conceives that clinical supervision has the potential to improve practice through improved comprehension, and a heightened ability to solve clinical problems. Furthermore, Jones claims that through supervision, students and clinicians can be supported emotionally.

2.5.5. Professional relations and communication

Since nursing is a practice-based profession; clinical education will always remain an essential component of the nursing curriculum. Ma (2009) posits that clinical practice affords learners with opportunities to apply theoretical content with hands-on patient care activities, thus coalescing the cognitive, psychomotor and affective skills. Additionally, students get the chance to apply professional communication methods in their dealings with clients and other practitioners. Thus, they look up to their seniors to copy and acquire these skills. Henzi, Davis, Jasinevicius and Hendricson (2006) identified four key attributes for an 'excellent clinical teacher' as being able to serve as a role model with competence and compassion; being an effective supervisor and a mentor to students; the ability to exercise dynamic approaches to teaching, and lastly, being supportive. These four elements are indicative of a sound and fruitful relationship that is basically facilitated by the nurse educator. In a study done by Hilton and Pollard, (2005) healthy professional relations among clinicians, lecturers as well as student nurses were discovered to have enhanced the teaching/learning process. From the same study, it emerged that students were content with this partnership as they felt that both lecturers and clinicians were on the same page, "singing the same song" (2005, p. 292), hence there was no confusion regarding the performance of clinical skills. This enabled the smooth transition of students from the educational setting to the clinical area and in this manner, the theory-practice gap was reduced. Kelly (2007) asserts that a sound student-teacher relationship promotes learning. Caring in these relationships as a nursing virtue is emphasised and is considered as a foundation for nursing (Baxter, 2006).

Baxter (2006) suggested the application of the CCARE (communication, collaboration, application, reflection and evaluation) model as a way to facilitate communication with the intention of sharing information that will yield mutually agreed-on decisions. The interaction

should take place among the students, the preceptors, and the clinical teachers and patients. The clinical teacher being the facilitator of this process becomes the source of knowledge, and provides feedback to ensure that theory is known and applied in the clinical area. Once again, Baxter (2006) stressed caring as a cornerstone element uniting nursing and nursing education as a profession.

Maintaining open lines of communication between the university and the health care institution can enhance the integration of theory and practice in nursing education. Gidman (2001) asserts that improvement in communication between HEI's and the clinical sites promotes a shared understanding of the curriculum, with clarification of the nurse educators' and mentors' roles. Therefore, since nursing is a practise-based profession, Andrews et al. (2006) emphasise the need for stronger communication links between the various practioners responsible for nurse education to enhance the effectiveness of clinical placements.

2.5.6. Evidence-based practice

Evidence-based practice (EBP) is defined in literature as the integration of best research evidence with clinical expertise and patient values to enhance clinical decision-making (Wurmser, 2007). In nursing education, EBP has been adopted and used to implement innovative curricular designs and teaching strategies that give students opportunities to learn and practice evidence-based nursing (Ferguson & Day, 2005). It is believed that evidence-based practice in the clinical setting is acknowledged as an approach that leads to improved patient outcomes; however, it still needs further explication (Penz & Bassendowski, 2006). These authors highlight issues existing within clinical settings that make it difficult for the clinicians to fully integrate EBP into practice, hence they regard nurse educators as having a mandate to model and facilitate evidence-based nursing through learning practices.

Integrating theory and practice, Ferguson and Day (2005) emphasise that the nursing faculty are incorporating evidence-based practice into nursing education programs by assisting nursing students to improve their skills in accessing and analysing the most relevant evidence to support their nursing practice. It is further suggested that the faculty should assist students in incorporating other sources of knowledge such as personal, aesthetic and ethical.

Upton (1999) asserts that research in nursing is necessary for informing theory and practice, hence the need for evidence-based practice. Baxter (2006) suggests that evidence-based nursing requires nursing practice to be grounded in information and research. This means that nurse educators and clinicians need to read and analyse literature, keeping up to date with recent information and knowledge generated through research (Upton, 1999). Through continual clinical updates and capacity-building for both educators and the clinic staff this can be attained. However, resource availability for the implementation of evidence-based nursing education curriculum is a concern, both in the nursing schools, as well as the clinical settings (Ferguson & Day, 2005). Resources include money, time, space, and an educated nursing faculty. These authors suggest that nurse educators need to be involved in determining new teaching strategies that are more cost-effective to assist students to achieve the expected learning outcomes, hence facilitating the integration of theory and practice.

2.6 BARRIERS TO THE INTEGRATION OF THEORY AND PRACTICE

Bevis and Murray (1990) lament that along with all education, nursing education has been criticised as being inefficient and inadequate in preparing effective nurses. There are numerous barriers mentioned in literature that are thought to hinder the integration of theory and practice in nursing education, therefore, in this section some of these factors will be discussed.

2.6.1. An educational philosophy as a guide

Kagan, Smith, Cowling and Chinn (2009) suggest that “nursing practice does not arise independently of and therefore is intrinsically and always underpinned by theory and philosophy” (2009, p. 83). Many educators at all educational levels claim that they actually have no philosophy of education, or that their philosophy is abstract and not readily and commonly taken into consideration (Petress, 2003). Dewey (1916) conceived that an educational philosophy is a formulation of theoretical ideas developed from a systematic consideration of an educational condition. In line with Dewey, Bode (1931) identified the function of philosophy as a source of illuminating or guiding of educational aims and practice.

An educational philosophy is not to be taken as a fancy statement that broadcasts attention-seeking intentions, but rather as a composite of assumptions, goals, choices, attitudes, and values that bring together the teaching profession (Petress, 2003). Tanner and Tanner (2007) argue that it is common to find faculties having developed an intricate philosophical statement which is, however, contrary to their educational practice. Having no clear educational philosophical guide, the teacher can be likened to a person with no compass or sense of direction, yet, having a philosophical statement that is contrary to one’s practice is also perceived as meaningless (Tanner & Tanner, 2007).

A well-defined teaching philosophy should reveal the deeper structures and values that give meaning and justification to an approach to teaching (Pratt, 2005). In a study conducted in the USA by Kagan et al. (2009) aimed at presenting the theoretical and philosophical assumptions of a Nursing Manifesto written by nurse scholars; their analysis produced an epistemological framework that is based on emancipation principles to advance praxis in

nursing. Although this study considered a wide range of philosophies and theories that influence nursing, the founding principle is that there is a need for a philosophy that guides nursing practice, education and research (Kagan, et al., 2009).

2.6.2. University-based nursing education

With the advent of the academic model in nursing education; the shift from hospital-based programs for nurse training to the university took place. This change produced a dogma which moved away from task orientation towards critical thinking, clinical judgement, and autonomy of practice in nursing (Betchel et al., 1999). A positive factor of the transition is the 100% graduate status and further education of nurse educators, (Upton, 1999) but then it is queried as to whether these achievements actually constitute an advantage. Cave (2005) stated that with this movement of nursing education to universities, where traditionally few academic institutions acknowledge the significance of practical experience and teachers are expected to pursue higher degrees, the shift may widen rather than reduce the theory-practice gap.

One perspective that may influence the theory-practice gap in nursing education is what Reed and Procter (1993) term as radical academia. In an attempt to raise practical knowledge, academics embrace practice experiences, yet they only have superficial knowledge or awareness of the actual clinical situation. This might inadvertently lead to erroneous implications to what is then taught *vis-à-vis* actual practice, further stretching the theory-practice gap. Another disadvantage anticipated as a result of the shift is that basic science subjects are now facilitated by specialists in the area who have no nursing knowledge (Ferguson & Jinks, 1994). This is disturbing, because the relevance of what is taught in class with specific regard to its application and meaning to nursing is questioned (Upton, 1999).

Additionally, Ferguson and Jinks (1994) viewed some of the problems with the transition which are assumed to further widen the theory-practice gap as resulting from the physical separation of nurse educators from the practice area. Infrequent visitations to clinical areas lead to clinicians viewing nurse educators as visitors rather than partners, and questions about their knowledge of patients and clinical credibility arise. This is because nurse education, according to Kelly, (2007) occurs in four main settings: classrooms, seminars, skills laboratories and clinical areas, hence the nurse educator must be able to display proficiency in theoretical, clinical as well as pedagogical knowledge. Therefore, detachment from one of the major areas threatens the profession.

With the transition, Saarikoski et al. (2009) posits that extra demands on nurse educators' responsibilities also surface, further diversifying their function, thus the ability to keep a credible clinical competence record becomes almost impossible. Several researchers (Kelly, 2007; Corlett et al., 2003) agree that such a shift brings with it increased responsibilities for the nurse academics. In addition to their teaching and clinician's role, as academics they are expected to engage in teaching, community service and research. Gillespie and McFetridge (2006) agree that the nurse educators following the move to higher education juggled their roles of teaching, administration, research and student support. Furthermore, these nurse educators are consistently compelled to develop an academic profile of research and publications and engage in other administrative responsibilities (Owen, Ferguson & Baguley, 2005). This not only has an impact on their workload and expectations, but the effects impact directly on nursing education, and are manifested in the theory and practice relationship and the competence of the nurses they produce (Corlett, 2000). Early research on the clinical role of academic staff (Clifford, 1995) identified an increased workload, lack of time and commitment to other university duties, and most importantly, the de-valuing of clinical

practice by the HEI as barriers to effective integration of theory and practice in nursing education. A decade later, similar results were reported by Owen et al. (2005), as low priority was given to clinical practice, and increased work pressures and heightened value of research to other academic duties, thus increasing the gap between theory and clinical practice.

2.6.3. Nurse educator's role

The role of the nurse educator in clinical learning remains questionable due to its complexities regarding the duality of its nature (McCaugherty, 1991). The nurse teacher is expected to be an educator and an expert clinician and both roles are assigned with major responsibilities (Ferguson & Jinks, 1994). Literature reveals that controversies around the nurse educator's role necessitate an extensive and in-depth body of knowledge and expertise in clinical skills being demanded from this individual, both in the classroom as well as in the clinical area (McCaugherty, 1991). Mellish, Brink and Paton (2003) agree that the role of the nurse educator is varied, and that within each element extensive preparation, competence and dedication are involved.

Gillepsie and McFetridge (2006) highlighted the challenges nurse educators face in regard to their clinical teaching role. Their major task is to enable students to create links and promote the meaning of clinical knowledge through the integration of classroom theory with practice and practice with theory. Furthermore, it is suggested that nurse educators should aim at assisting the student nurse to develop an understanding of the meaning of nursing and should enable them to apply learned theory in practice settings through effective clinical teaching (Gillepsie & McFetridge, 2006).

2.6.4. Clinical nursing education: who is responsible?

Also referred to as clinical teaching and learning, clinical nursing education plays a significant role in helping student nurses integrate theory and practice (Jerlock et al., 2003). Clinical nursing education remains a critical component of undergraduate nursing education (Mannix, Wilkes & Luck, 2009). Mannix et al. (2009) further emphasised therefore, that clinical teaching and learning is a significant and fundamental element for nursing education, and thus it is the most important aspect of the curriculum. The aim of clinical teaching according to Mellish et al. (2003) is to produce proficient registered nurses capable of providing competent nursing care grounded on resonant knowledge and practiced skills.

Specific to the clinical teaching role, different views emerge. Cave (2005) postulates that nurse educators need to demonstrate how theoretical knowledge can be integrated and applied to practice. It is expected that academic staff keep abreast with up-to-date practice knowledge to ensure the relevance of what is taught in class to the realities of the clinical setting, hence they should be seen as role models for the students (Henzi et al., 2006). Sharing the same view, Mellish et al. (2003) emphasise that the nurse educator is always a model for the students. On the contrary, McCaugherty (1991) and Corlett et al. (2003) argue that nurse educators are victims of this challenging role, as not only are they supposed to be erudite on the subject matter, but they are also expected to be experts in the clinical area.

An experimental design was used to investigate factors influencing theoretical knowledge and practice skill acquisition in student nurses by Corlett et al. (2003). The results of that study revealed that nurse educators did not have recent clinical experience in the specialities involved, yet they routinely taught the theory and practical elements of that speciality. In the same study, it was also found that some teachers did not fully understand their clinical role

and expressed a lack of confidence regarding their clinical competence. Having no confidence in their clinical competence could lead to poor preparation of students for the real situation. Kelly (2007) attests that poor clinical teaching preparation is a common problem in nursing education.

Additionally, the confusion surrounding who should teach the student nurse in the clinical area remains, since the clinicians also feel that they are not qualified to teach (Ehrenberg & Häggblom, 2007). Mellish et al. (2003) state that the nurse clinician has a responsibility to ensure that patients receive safe and competent nursing care, meaning that s/he has a responsibility to ensure that those providing that care are competent to do so, and if not, it is his/her duty to teach them. Furthermore, the student nurse spends a considerably greater amount of time with the nursing sister while in the clinical area than with the nurse educator (Mellish et al., 2003). As a result, it is suggested that nurse educators need to redefine their roles, focusing on what they are expert at, and leaving some areas of the curriculum to be taught by those with the clinical expertise to do so (Corlett et al., 2003).

The shift of nursing education from hospital-based training to higher education has also led to the facilitation of clinical skills in university's CSL, rather than at the patients' bedsides. This innovation is supported by a number of researchers (Freeth & Fry, 2005; Morgan, 2006), who view this way of teaching as safe, and as preparing the learner for the actual clinical experience, as well as further developing simulation and provide a more controlled environment for teaching and assessing skills (Haigh, 2007). Bradshaw and Merriman (2008) argue however that, although this method of teaching and learning clinical skills was introduced by HEI as a way of bridging theory and practice, it will never replace the clinical experience, but can only complement it.

2.6.5. Curricular issues

McCaugherty (1991) attributed the causes of the divide to the disparities between theory and practice themselves. This researcher states that the gap is partly due to the 'symbol-object dichotomy' of books (empirical theory) as dissimilar to the realities of the ward (clinical and/or the art of nursing). In clarifying what McCaugherty meant, the book gives one a picture or a symbol of what the actual object or situation looks like. Further, McCaugherty maintains that, from classroom teaching, full comprehension of principles cannot ascertain one's ability to apply them in practice; knowledge is one thing and practice is another. Additionally, empirical knowledge derived from textbooks and lectures on nursing care can never illustrate precisely the reality of ward experience.

Another curricular issue that seems to widen the theory-practice gap is that of learning for practice. The difference between a novice and an expert is basically the amount of experience, as well as the critical thinking and problem-solving skills (Biley & Smith, 1998) he or she possesses. Therefore, in the traditional curriculum which is basically content-driven, evidence shows that students were able to pass exams, but after a while had retained very little of what was learned. Furthermore, the same researchers state that student may have knowledge but cannot translate that into practice (Biley & Smith, 1998). Ferguson and Jinks (1994) indicate that critics of this curriculum model would be concerned with the precise specification of objectives which promote homogeneity and conformity among students yet restrict their cognitive abilities. Benson and Griffith (1991) refer to the kind of knowing from the product model curriculum as static and absolutist, and hence it is believed that learning based on this model is meaningless, signifying that application of such knowledge is only technically driven, not dependent on rational thinking. McCaugherty (1991) agrees that having theoretical knowledge does not guarantee its application in clinical practice. This is

an indication that using the traditional method of teaching and learning, students learn to pass, or may retain some knowledge which they cannot apply (Biley & Smith, 1998). Ferguson and Jinks (1994) suggest the use of the process model which emphasised education as a developmental process that prepares students for lifelong learning. Therefore, Betchel et al. (1999) maintain that the priority for nurse educators who aspire to make the most of the holistic teaching and learning process, is the paradigmatic shift to integrate new roles with learners while reducing the behaviourist forces of traditionalists.

2.7 CONCLUSION

The review of literature revealed that the theory-practice gap phenomenon has a history in nursing education and has fostered much debate. It is perceived though that this issue is owned by the students, (McCaugherty, 1991) although the nurse educators, nurse clinicians, as well as the recipients of nursing care are affected just as greatly (Haigh, 2010). Several ways of enhancing the integration of theory and practice in the classroom, clinical skills laboratory or the clinical setting have been suggested by the literature, especially the use of non-traditional teaching and learning approaches, as well as the collaboration of the HEI with the practice setting in support of the students. Barriers to the integration of theory and practice were identified and discussed. With the move of nursing education to higher education, the role of the nurse educators has been contentious (Gillepsie & McFetridge, 2006; Ousey & Gallagher, 2010). Furthermore, the increased responsibility in their role as nursing academics, and the concurrent increase in responsibilities and expectations of institutions have become overwhelming, making attempts to integrate theory and practice in nursing education even more futile (Kelly, 2007). The process of teaching and learning

therefore is greatly affected by this discrepancy, and the quality of nurses who graduate under such circumstances is questioned.

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter will present the research design and methods that were used to guide the study. The study setting, population and sampling of the participants will be presented, as well as the data collection, analysis and management.

3.2 RESEARCH PARADIGM AND APPROACH

For this research project, the positivist paradigm was employed. Guba and Lincoln (1994) state that the positivist paradigm holds an objectivist assumption that enables the researcher to establish how phenomena under study really are, and how things actually work. Also known as the logical positivism paradigm, it is linked to the quantitative research approach which involves the use of tight controls over the research situation (Polit & Beck, 2008). Burns and Grove (2009) assert that the perspective for quantitative research is concise and reductionist, thus it was appropriate for this study which aimed at exploring and describing the perceptions of students and nurse educators about the integration of theory and practice in nursing education in Swaziland.

3.3 RESEARCH DESIGN

A non-experimental, exploratory-descriptive study design was employed in this inquiry. According to Burns and Grove, (2009) the purpose of descriptive research is to provide an illustration of a situation as it naturally occurs. This design is used to examine the

characteristics of the sample, and is essentially useful in acquiring knowledge in an area where little research has been conducted. Since the descriptive design simply observes and describes the phenomenon, exploratory research investigates the full nature of the phenomenon; the manner in which it is presented, and other factors related to it (Polit & Beck, 2008).

The exploratory-descriptive design was therefore appropriate for this study, because according to the researcher's knowledge, no study of this nature has been conducted in Swaziland previously, and more importantly, the study intended to uncover factors facilitating theory-practice integration as well the barriers to it.

3.4 STUDY SETTING

The study was conducted at the University of Swaziland, Faculty of Health Sciences (FHS) in Mbabane. The FHS has two major departments, the Nursing and Environmental Health Sciences department. Within the Nursing department are three departments, the General Nursing and Community Health Nursing, as well as the Midwifery departments. Currently, the Faculty offers undergraduate studies in Nursing and Environmental Health Sciences. The duration of the Bachelors' Degree offered for nurses is five years, and it is only offered on a full time basis. A Diploma in General Nursing which qualifies one to become a State Registered Nurse is offered, and runs for three years after which one can either pursue a degree in Nursing for a further two years, or a Post-Diploma Certificate in Midwifery or Community Mental Health Nursing for one year. The campus is close to the Mbabane Government Hospital, the country's main referral hospital where nursing students conduct most of their clinical practice. Burns and Grove (2009) assert that descriptive studies are often conducted in their natural settings. Figure 2 illustrates the study setting.

3.5 POPULATION

The target population in this study comprised of nurse educators from the nursing departments, 26, and a total of 267 registered nursing students. From the population, student nurses at the diploma level of nursing (the first three years) were divided into two categories. These were those who had entered their studies straight from high school, and those who had done the nursing assistant program. At the post-diploma level, the categories comprised the one-year Midwifery programme or Community Mental Health Nursing groups, as well as the fourth and the fifth year groups from the Bachelors' Degree programme. In these groups some students had transferred from the diploma level (following the completion of year three), while others were students returning from work. Therefore, the total population for the study was 293.

3.6 Sampling and Sample Size

Sampling is defined as the process of selecting elements within a population that represent the entire population so that inferences about the population can be made (Polit & Beck, 2008). Because of the heterogeneity of the target population, a probability sampling method was employed which allowed every individual in the population an opportunity to be selected in the sample. The probability sampling method refers to the fact that every member of the population has a higher than zero chance of being selected for the sample (Burns & Grove, 2009). A sample frame for the students was made, from which a simple random sample was drawn using a table of random numbers as a sampling technique. From the educators' group, all those willing to participate in the study were included. Although descriptive studies tend to use small sample sizes (Burns & Grove, 2009), other factors may reduce the power of the

study and therefore a larger sample may be required. Using a raosoft sample calculator employing the following parameters, margin of error of 5%, confidence level of 95%, response rate of 50% and the population of 293, the sample size was 167 and this ensured representativeness.

3.7 DATA COLLECTION

3.7.1 DATA COLLECTION PROCESS

Quantitative researchers collect empirical evidence according to a formulated plan, using a structured instrument to gather the required information (Polit & Beck, 2008). Data collection was conducted after obtaining ethical clearance from the University of KwaZulu-Natal (UKZN), Faculty of Health Sciences Research and the Ethics Committee, and permission was granted by the Faculty of Health Sciences of the University of Swaziland to conduct the study.

In Swaziland, after permission to conduct the study was granted to the researcher by the Dean of the Faculty, the Heads of Department (HODs) from each of the nursing departments were consulted to gain access to both the nurse educators and students. These two groups were approached exclusively to explain the nature and purpose of the study, as well as their rights to participation. For the lecturers' group, data were collected at the Faculty of Health Sciences, a convenient venue for the participants since it is their workplace environment. Questionnaires were distributed through the Heads of Department, and some were distributed personally to their offices. Appointments for the collection of completed questionnaires were made at least a week after the questionnaires has been received, but basically at times convenient to the participants.

Gaining access to the students was achieved through their supervising lecturers. The HODs and lecturers assisted the researcher with the data collection process from the students. They knew which times were suitable during the day for the researcher to administer the questionnaire to students without disrupting classes, seminars or practical sessions. Student nurses were approached, and the purpose of the study was explained. Their rights and consent

to participate were explained and sought respectively. It was also explained that participants had the right to withdraw from participation at any point in time should they wish to do so. Questionnaires for students were collected immediately after they had been completed, depending on the time of the administration. Some were handed out for collection on the following day in an attempt to avoid seminar or practice disruptions. In ensuring that no data were lost or misplaced, the researcher ensured the safe transportation of data from the site (at the university) to the researchers' residence.

3.7.2 DATA COLLECTION INSTRUMENTS

Data collection was conducted through the use of questionnaires and document analysis. Two questionnaires were devised, one for students and the other for lecturers. The questions were generated from the literature, as the researcher was unable to find any other developed tool in the existing literature and the conceptual framework. Items from the questionnaires were centred on the objectives of the study. A five point Likert scale was used to rate the views of participants ranging from 'strongly agree', 'agree', 'neutral', 'disagree' to 'strongly disagree'.

The nurse educators' questionnaire was divided into three parts. Part one solicited the demographic data which included the participants' ages, programs, highest qualifications, length of practice as nurse educators and whether they were facilitating in clinical nursing education. Part two of the questionnaire sought the perceptions of nurse educators on the integration of theory and practice. It was comprised of items on the nurse educators' understanding of theory and practice, the ways in which theory and practice were integrated in nursing education, and the barriers to the integration of theory and practice. The last section of the questionnaire, part three, consisted of open-ended questions which solicited the participants' teaching philosophy, the perceived barriers to the integration of theory and

practice, and suggestions as to how this integration could be facilitated in the university and the clinical setting.

The students' questionnaire was also divided into three parts. Part one comprised the demographic data which included the gender, age, program and level of study, whether participants had been trained as enrolled nurses (nurse assistants) and whether they had ever practiced as nurses before. The second part of the questionnaire comprised items that sought the students' perceptions of theory and practice integration in nursing education. Items in this section included the students' perception of the ways theory and practice integration was facilitated, as well as the barriers to this integration. Part three consisted of open-ended questions which sought descriptions or suggestions of what they thought could be done by them as students, as well as the faculty, in merging theory and practice in nursing education.

3.8 VALIDITY AND RELIABILITY

3.8.1 Validity of the data collecting tool

According to Polit and Beck (2008) the validity of the research instrument determines the degree to which it measures what it is intended to measure. Burns and Grove (2009) are in agreement that instrument validity determines the extent to which the instrument actually reflects the abstract construct being investigated. Construct and content validity were ensured by checking items in the data collection tool against the objectives of the study and the concepts in the conceptual framework, to establish if all elements to be investigated were measured. The research supervisors, as well as a panel of experts in the research and nursing education department from the UKZN School of Nursing also reviewed the instrument.

3.8.2 Reliability of the instrument

Maree (2008) defines reliability as the extent to which a measuring instrument is repeatable and consistent. This means that the instrument, if used at different times, or administered to different subjects from the same population, will yield similar findings. Reliability of the instrument was ensured by undertaking the test-retest activity.

Test-retest reliability: the research instruments were administered twice in a two-week interval to five students and to three nurse educators, before the actual data collection. The eight subjects who took part in the test-retest did not participate in the main study. Thereafter, the first set of answers was compared with the second set by calculating the correlation coefficient which according to Maree (2008) must be at least 0.8. It was found that for the student's questionnaire, the correlation coefficient was 0.74 and for the nurse educators' questionnaire it was 0.83.

Internal consistency refers to the homogeneity of an instrument (Polit & Beck, 2008) or a measure of reliability by determining the degree to which each item in the instrument correlates with each other (TerreBlanche & Durrheim, 2007). Reliability testing was carried out by measuring the Cronbach alpha coefficient which was 0.7. According to Burns and Grove (2009), a newly developed psychosocial instrument with 0.7 is considered acceptable as the researcher refines the instrument to attain ≥ 0.8 reliability.

3.9 DATA ANALYSIS

Data generated were organised and analysed using the Statistical Package for the Social Sciences (SPSS), Version 15.0. Descriptive statistics were used to summarise and analyse data. Non-parametric and chi-square tests were used to determine relationships between

students and nurse educators' perceptions, students who had working experience and those who had never worked, as well as those who had been trained as nurse assistants and those who had not. Qualitative data from the open-ended questions were analysed by identifying and grouping common themes from the data. A statistician was consulted for assistance with the analysis of the data.

3.10. ETHICAL CONSIDERATION

According to Burns and Grove (2009), nursing research requires not only expertise and diligence but honesty and integrity as well, therefore ethical research is essential to generate a sound evidence-based practice for nursing.

Permission: Prior to data collection, the research proposal was presented and submitted to the University of KwaZulu Natal, FHS Research and Ethics Committee who granted ethical clearance. Permission to conduct the study at the University of Swaziland, Faculty of Health Sciences was sought from and granted by the Dean of the Faculty.

Informed consent: participants' approval to take part in the study was obtained through written and signed informed consent. The respondents' rights to voluntary participation, confidentiality, anonymity and the right to refuse to participate or to withdraw from the study at any time were ensured. An information sheet explaining the purpose of the study was attached to the consent form, but detached from the questionnaires.

Anonymity: participants' identities were protected since no names were written on the questionnaires that could identify respondents, and numbers were used as codes.

Confidentiality: data obtained from this study were only accessible to the researcher, and were only used for the purpose of this research project.

Benefits: the study did not have any physical, psychological, social or legal risks for participants. There were no direct benefits from their participation either, but the information obtained could be used to improve nursing education in the country.

3.11. DATA MANAGEMENT

Collected data were used solely for the purpose of this investigation. Raw data were guarded by the researcher during analysis and the processing of the report, after which the University of KwaZulu-Natal will safeguard the data for a period of five years through the office of the research supervisor. Analysed data was saved in computer files protected by a password known only to the researcher.

3.12. DISSEMINATION OF FINDINGS

Findings of this study will be disseminated as a hard copy dissertation submitted to the UKZN, FHS, through the School of Nursing, and to the University of Swaziland, FHS. The study findings will also be published in academic journals and presented in scholarly conferences and seminars.

3.13. CONCLUSION

This chapter presented the methodology of the study, how data were collected, managed and analysed, ethical considerations, as well as the dissemination plans. The next chapter will present the research findings.

DATA ANALYSIS AND FINDINGS

4.1 INTRODUCTION

In this chapter, the results of the study are presented. To reiterate, the aim of the study was to explore the perceptions of students and nurse educators regarding the integration of theory and practice in nursing education in Swaziland. The objectives of this investigation were to: (a) describe the nurse educators' understanding of the concept of theory-practice integration in nursing education; (b) to describe the students' perceptions of the theory-practice integration in nursing education, (c) to explore ways in which theory and practice integration is facilitated in the nursing department of the Faculty of Health Sciences at the University of Swaziland (UNISWA); and lastly, (d) to describe barriers to the integration of theory-practice in nursing education in the Faculty of Health Sciences at UNISWA.

The presentation of the results will commence with the students' demographic data presented first, followed by that of the nurse educators. Following the demographic data will be the presentation of students' perceptions regarding the integration of theory and practice. From the nurse educators' data, their understanding of theory and practice will be presented first, followed by the ways in which theory and practice is integrated in nursing education. Results indicating the students' understanding of the barriers that hinder the integration in nursing education will follow, and then the nurse educators' perceptions of the barriers to the integration of theory and practice. The last part of the chapter will present the analysis of the open-ended questions, as well as the suggestions of both students and nurse educators as to

what and how they think theory and practice in nursing education can be integrated in nursing.

From the students' and nurse educators' questionnaires, a five point Likert scale was used for responses recorded from 'strongly agree', 'agree', 'neutral', 'disagree' to 'strongly disagree'. A comparison of the responses between the educators and the students was also made with regard to the ways in which theory and practice was facilitated, and regarding some of the perceived barriers to the integration. Data were analysed using the Statistical Package for Social Science (SPSS), Version 15.00. Descriptive statistics were employed with the use of frequency distributions; mean, median, standard deviations as well cross-tabulation. To ascertain association amongst variables, the Mann Whitney and Kruskal Wallis statistical tests were performed. These tests were done to determine the relationship between the different levels of study among students, as well as between those who had previously practised as nurses and those who had not. A chi-square value obtained at a *p.value* of ≥ 0.05 indicated a statistical significant difference between the variables under study. Data captured from open-ended questions were analysed qualitatively by grouping together frequently occurring responses into themes.

4.2 SAMPLE REALISATION

4.2.1 Total sample

The target population for this study was 293, and with a response rate of 50%, confidence interval of 95%, and a 5% margin of error, the total sample size was calculated to be 167. The total sample, 100% (n=167) comprised 90.4% (n=151) students and 9.6% (n=16) nurse educators as depicted in figure 4.1.

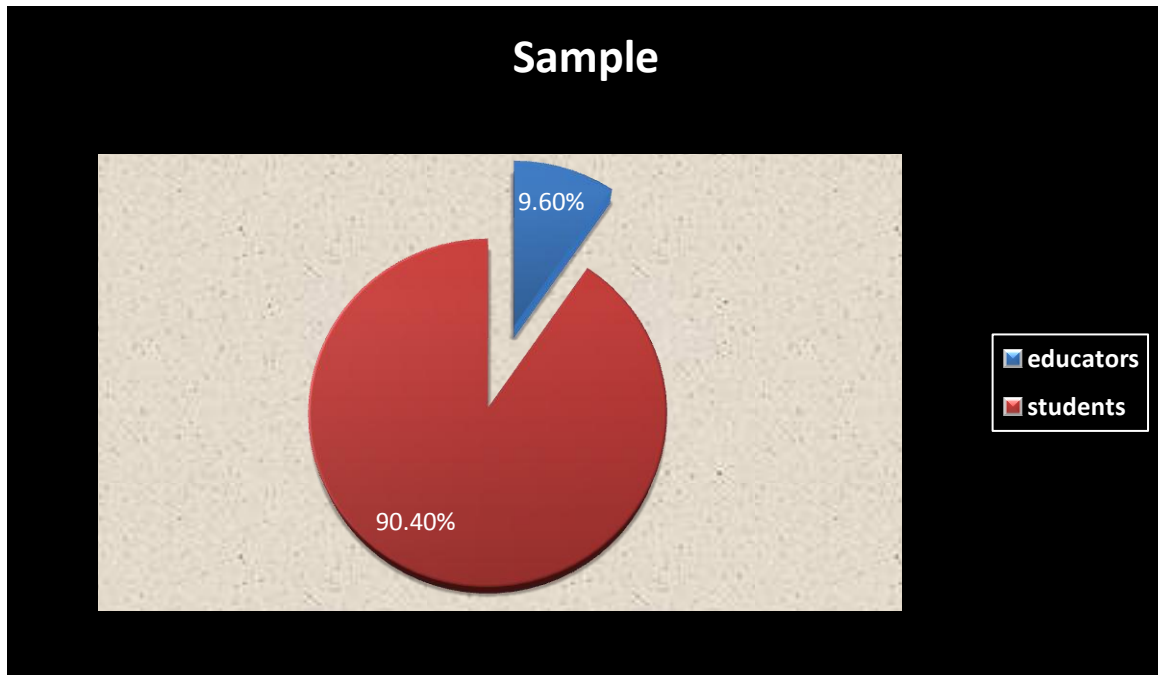


Figure 4.1: Total sample (n=167)

4.2.2 Demographic Data

Students' sample

From a total of 267 students, 151(n) participated in the study, and of these, 66.2% (n=100) were females, and 37.7% (n=51) were males. Therefore, the response rate for student participants was 57%. The age of participants ranged from 17 to 44 with the median age of 24. About 24.5% (n=37) were in their first year, 16.6% (n=25) in their second year; 16.6% (n=25) in their third year, 11.3% (n=17) were in their fourth year and 23.8% (n=36) in their last year of training; 10 (6.6%) were doing Midwifery, and only 0.6% (n=1) studied Community Mental Health as indicated in Table 4.1. Students who had previously trained as enrolled nurses made up 10.6% (n=16) of the sample, and those who had worked as nurses before formed 23.8% (n=36) as illustrated in Table 4.1.

Level of training	Gender		Total	
	Male	Female	Frequency	Percentage
GN 1	9	28	37	24.5%
GN 2	12	13	25	16.6%
GN 3	11	14	25	16.6%
BNs 4	5	12	17	11.3%
BNs 5	10	26	36	23.8%
Midwifery	3	7	10	6.6%
CMHN	1	0	1	0.7%
Total n (151)	51	100	151	100%

Table 4.1: Level of training and gender cross-tabulation for students

From the student sample, 10.6% (n=16) had previously trained as enrolled nurses, whilst 89.4% (n=135) had never received such training. About 23.8% (n=36) of the students had previously worked as nurses, and the remaining 76.2% (n=115) had never practised as nurses before.

Nurse educators' sample

From a population of 26 in the nurse educators' group, 64% responded and partook in the study making up a total of 16 participants. Of these, 37.4% (n=6) were from the General Nursing Department and 25% (n=4) were from the Midwifery Department, while the rest were from the Community Health Nursing Department. About 37.4% (n=6) had attained Doctoral Degrees (PhDs), while 43.8% (n=7) had Masters' Degrees. All the participants, 100% (n=16) had practised as clinical nurses prior to teaching, but the duration of their clinical practice varied widely. All the participants were females. It is noteworthy that all the

participants, 100% (n=16) facilitated clinical education at the university. Figure 4.2 projects the nurse educators' programs and qualifications.

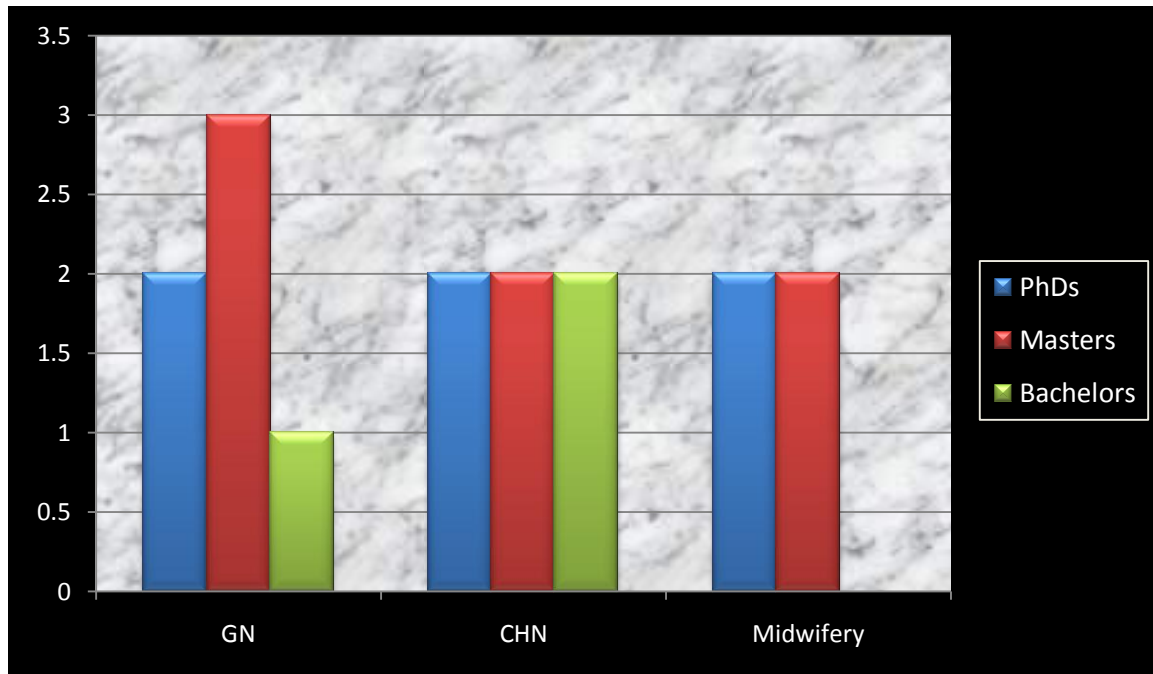


Figure 4.2: Nurse Educators' program and qualification

4.3 FINDINGS ON THEORY AND PRACTICE INTEGRATION

4.3.1 Students' perceptions of the ways of facilitating theory-practice integration

To determine students' understanding of the ways in which nursing theory and practice integration is facilitated in the university, as well as in the clinical area, a total of 21 questions were used to measure this variable. Using the Kruskal Wallis Test to determine the associations of students' understanding with the level or program of study, a p value 0.006 and a Chi-Square of 18.072 indicated that the relationship was found to be statistically significant. The Community Mental Health students had the highest mean score of 105.5. This can be attributed to the fact that only 0.6% (n=1) student (out of a total of 3 from the population) formed part of the sample. The General Nursing second year group had a mean

score of 90.90, then the Midwifery group with a mean score of 88.55. The lowest mean score was recorded by the General Nursing third year students with 53.36. Intermediate scores were recorded by the fourth and the fifth year students with 53.59 and 75.51 mean scores respectively. Table 4.2 gives an illustration of the students' mean scores against the level of study.

Level of training	N	Percentage	Mean Rank
GN 1	37	24.5%	87.81
GN2	25	16.5%	90.90
GN3	25	16.5%	53.36
BNs4	17	11.3%	53.59
BNs5	36	23.8%	75.51
Midwifery	10	6.6%	88.55
CMHN	1	0.7%	105.5
Total	151(n)	100%	

Table 4.2: Students' mean rank for understanding of theory-practice integration by level of study

Having had previous training as a nurse assistant was also measured, to determine whether there could be any relationship between this training and the students' understanding of the theory and practice integration. Using the Mann Whitney Test, a *p.value* of 0.094 showed no significant relationship between the students' understanding and previous training as enrolled nurses.

Determining whether working experience had any influence on students' understanding of the ways in which theory and practice integration were facilitated, the Mann Whitney Test was performed. The test indicated that the association was statistically significant, with a

p.value of 0.019. Of the 100% (n=151) participants, about 23.84% (n=36) had once practised as nurses, and 76.16% (n=115) had never previously practised as nurses.

A total of 130 participants (86.09%) agreed that it was easy for them to see the relevance of theory and practice. Regarding the link between theory and clinical practice, 82.78% (n=125) agreed to having that ability, whilst 8.61% (n=13) were unsure whether they could do that, and 85.43% (n=129) reported to be able to refer to clinical experience in class. The findings indicated that the application of theory to practice was not easy, as 62.91% (n=95) agreed to having that ability and 17.89% (n=27) disagreed, while the rest were not certain.

4.3.2 Nurse educators’ understanding of theory and practice integration

In determining the nurse educators’ understanding of theory and practice integration in nursing education, the Kolmogorov-Smirnov Test was employed and the following results were obtained. The results indicate that there is no statistical significance from the variables relating to the knowledge and understanding of educators about the integration of theory and practice as depicted in Table 4.3 below.

Variable	n	Mean	Standard deviation	Kolmogorov-Smirnov Z	<i>p.value</i>
Age	12	47.08	14.209	0.598	0.867
Working experience as a lecturer	16	12.70	10.119	0.919	0.367
Practiced as a nurse before teaching	16	9.19	5.762	0.565	0.907

Table 4.3: Significance of age, work experience in educators’ understanding

Eleven questions were used to measure the understanding of educators on theory and practice integration in general. Results showed that all 16 (100%) nurse educators strongly agreed

with the reference of theory-practice integration as the ability to apply what is learned empirically in clinical practice.

A total of 14 (87.50%) strongly agreed that theory-practice integration also refers to nursing theory, research and practice combined, each informing the other. About the role-players in the integration of nursing theory and practice, 87.50% (n=14) strongly agreed that nurse educators, clinicians and students have roles to play in this enterprise. About 93.75% (n=15) of the participants strongly agreed that nursing education had a major responsibility towards sealing the gap between nursing theory and practice, and that clinical nursing education was an essential component in this subject.

4.3.3 Nurse educators' perceptions of the theory-practice gap

Nurse educators were asked if they thought the gap between theory and practice existed in nursing in the country. Significantly, all 100% (n=16) of the participants agreed that there was indeed a gap between theory and practice in nursing education. About 68.75% (n=11) of the educators felt that the gap between theory and practice in nursing education was wide, whereas 18.75% (n=3) stated that the gap was very wide, and about 12.50% (n=2) viewed the divide as narrow as shown in Figure 4.3.



Figure 4.3: Nurse educators' perceptions of the theory-practice gap

4.4 WAYS TO FACILITATE THEORY AND PRACTICE INTEGRATION

4.4.1 Pedagogic approaches

The use of teaching and learning approaches which were believed to bridge the gap between theory and practice was also determined. The use of the traditional method of teaching and learning was not favoured by the majority of nurse educators, 87.50% (n=14). About 75% (n=12) of nurse educators preferred the use of case studies as a teaching and learning approach to bridge the theory and practice gap. The majority of educators, 81.25% (n=13) used guided reflection as a pedagogic strategy to facilitate the linking of theory and practice as illustrated in Table 4.4.

Students felt that after learning how to draw the nursing care plan, it became easier for them to integrate theory with practice, with 74.17% (n=112) of the students agreeing, whilst 17.22% (n=26) disagreed and the rest, 8.61% (n=13) remained neutral.

Assessments: In terms of the connection of theory to practice relating to assessments and tests, 74.17% (n=112) of the students agreed that theory and practice integration was apparent in the way tests and exams are structured, but 17.22% (n=26) did not share the same viewpoint, while 8.61% (n=13) were uncertain, as indicated in Table 4.4. Regarding assessments, about 81.25% (n=13) of the nurse educators agreed to the use of case studies for teaching and assessing students as a means of integrating theory to practice in nursing education. About 81.25% (n=13) of educators felt that clinical practice exams on actual patients serve to integrate theory with practice.

Self-directed learning approaches: students were asked if they regarded themselves as responsible enough for self-direction in their learning process, as another way of integrating theory and practice in nursing education. It was found that 82.11% (n=124) of the students

believed that it was their responsibility to attend clinical practice without the nurse educator shepherding them all the time. This also came out strongly from the open-ended question about what students can do to bridge the theory practice gap; 74.17% (n=112) of the participants stated that they could practise diligently, as indicated in this example of a common excerpt from the participants’ responses, *“It is my responsibility to learn, to go to the clinical sites without being followed around by lecturers”*.

From the educators’ viewpoint, 68.75% (n=11) agreed that the clinical skills lab was an ideal setting for the students to practise skills in a self-directed manner; 18.75% (n=3) disagreed, and 12.5% (n=2) remained neutral as depicted in Table 4.4.

Participants	Item	Agree	Not sure	Disagree	Total
Nurse Educators	Using case studies as a pedagogic approach	12 (75 %)	3(18.75%)	1 (6.25%)	16 (100%)
	Using a problem-based learning approach in teaching and learning	11 (68.75%)	3 (18.75%)	2 (12.5%)	16 (100%)
	Using guided reflection in teaching and learning	13 (81.25%)	2 (12.5%)	1 (6.25%)	16 (100%)
	Using critical analysis of case studies in teaching and assessment of students as a means of integrating theory and practice.	13 (81.25%)	2 (12.5%)	1(6.25%)	16 (100%)
	The CSL is an ideal place for students to practice clinical skills in a self-directed manner	11 (68.75%)	2 (12.5%)	3 (18.75%)	16 (100%)
Students	It is easy to apply theory to practice after learning the nursing care plan.	112 (74.17%)	13 (8.61%)	26 (17.22%)	151 (100%)
	As a student, I responsibly attend clinical practice; I am self-directed in my learning.	124 (82.11%)	7 (4.64%)	20 (13.25%)	151 (100%)
	Tests and exams are structured so that theory and practice is easily integrated.	114 (75.5%)	12 (7.95%)	25 (16.55%)	151 (100%)

Table 4.4: Understanding of pedagogical factors influencing bridging the theory-practice gap in nursing education

4.4.2 Clinical nursing education

All 16 (100%) of the nurse educators agreed that clinical nursing education (CNE) was an essential component in the integration of theory and practice in nursing education. About 93.75% (n=15) perceived themselves as clinically competent to facilitate in clinical skills, and the same proportion of educators agreed that their knowledge of clinical skills was up-to-date. Regarding their role in clinical teaching however, 93.75% (n=15) claimed to know their role, but 6.25% (n=1) were unsure how that role could be used in theory-practice integration. Regarding balancing clinical teaching with clinical practice, 31.25% (n=5) felt clinical teaching received less attention, and the same proportion was unsure as depicted in Table 4.5.

Item	Agree	Not sure	Disagree	Total
CNE is an essential component in the integration of theory and practice	16 (100%)	0	0	16 (100%)
I am clinically competent to teach clinical skills	15(93.75%)	1(6.25%)	0	16 (100%)
I do not understand my role in CNE	0	1 (6.25%)	15 (93.75%)	16 (100%)
I am unsure of my role as clinical nurse educator in theory and practice integration	5 (31.25%)	1(6.25%)	10 (62.5%)	16 (100%)
Clinical teaching is given a lower priority than classroom teaching	5 (31.25%)	5 (31.25%)	6 (37.5%)	16 (100%)

Table 4.5: Clinical Nursing Education (CNE) in theory and practice integration

4.4.3 Open lines of communication

Students and nurse educators were asked whether communication regarding the education of students among the faculty, clinicians and students was promoted to facilitate theory and practice integration. Students' views on the knowledge of what was expected of them in the clinical setting varied. About 64.24% (n=97) of them agreed, 21.85% (n=33) remained neutral, and only 21 (13.91) strongly disagreed. Ninety-one students (60.26%) felt that expected clinical outcomes were clearly stated for them, whilst 19.21% (n=29) did not feel

the same way. Seventy-four students (49.01%) thought clinical practice outcomes were communicated to clinical staff, and 27.15% (n=41) disagreed, and 23.84% (n=36) remained neutral. Specifically focussing on what and how students learn, 33.77% (n=51) of the participants thought that this was communicated to clinical staff. A total of 59 (39.07%) students felt that educators had good relations with the clinical staff, whilst 23.84% (n=36) disagreed.

Nurse educators who stated that they were communicating regularly with the clinical staff comprised 43.75% (n=7), while 31.25% (n=5) were not sure whether they did, and the rest, 25% (n=4) disagreed. About 12 (75%) of the nurse educators felt that clinical outcomes pertaining to students' clinical practice were clearly communicated to the clinical staff, whilst only 6.25% (n=1) disagreed. On the issue of informing the clinicians about learning developments in the university, only 43.75% (n=7) agreed that this is done, whereas 50% (n=8) of the nurse educators were not sure and the rest disagreed. About 75% (n=12) of the educators felt that students always knew what was expected of them in the clinical setting, whereas 25% (n=4) felt that the students sometimes did not know the expected outcomes of clinical placements, and the remaining 25% (n=4) remained neutral.

4.5 BARRIERS TO THE INTEGRATION OF THEORY AND PRACTICE

In understanding students' perception of the barriers that impede the integration of theory and practice, a total of 20 closed-ended questions were asked, and one open ended question where the participants indicated what they thought could be barriers. From the closed-ended questions, non-parametric tests were executed to determine relationships among variables. The Kruskal Wallis test was performed to solicit whether there was any relationship in the students' views of barriers to the integration of theory and practice against the level or

program of study. The relationship between the students' levels of study and their perceptions of barriers was found to be statistically significant with a chi-square of 24.484 and a *p.value* of 0.0001. Using the Mann Whitney test to determine whether students' views of barriers to the integration were influenced by previous experience, a *p.value* of 0.019 confirmed the significance statistically, however no link was established regarding previous training as enrolled nurses with their perceptions of barriers to the integration of theory and practice.

4.5.1 Resources availability

Equipment: one of the major factors highlighted by the study participants was the unavailability of equipment which affects the integration of theory and practice in nursing education. More than three-quarters of the students, 75.50% (n= 114) disagreed with the availability of equipment and supplies for practice, 16.56% (n=25) felt that equipment was adequate to enable practise, and the remaining 7.94% (n=12) were not sure, as indicated in Figure 4.4. With the clinical skills or demonstration laboratory, 37.75% (n=57) felt that the clinical skills or demonstration laboratory was not well equipped to facilitate the practise of clinical skills, whilst 34.44% (n=52) thought otherwise. From the open-ended question, about 45% (n=68) of the student participants indicated the lack of resources as a hindrance to the integration as illustrated in Table 4.6.

Nurse educators felt the same way as students about resources. From the open-ended questions, 68.75% (n=11) mentioned this factor as a barrier to the integration of theory and practice. With specific regard to the clinical laboratory, almost the same proportion of educators, 37.5% (n=6) felt that the clinical skills or demonstration laboratory was not sufficiently equipped to facilitate the integration of theory and practice as depicted in Table 4.6.

Participants	N	Agree	Not sure	Disagree	Total
Students	151	52 (34.44%)	42 (27.81%)	57 (37.75%)	151 (90.4%)
Educators	16	7 (43.75%)	3 (18.75%)	6 (37.5%)	16 (9.6%)
Total	167	59 (35.33%)	45 (26.95%)	63 (37.72%)	167 (100%)

Table 4.6: The clinical skills or demonstration laboratory is well equipped to facilitate the integration of theory and practice

Time: The maintenance of equilibrium between theory and practice was essential, particularly in practice-based professions like nursing. The results showed that 41.06% (n=62) of the students thought that the time for theory and practice sessions was balanced, whilst 39.74% (n=60) felt that the time allocated for practical sessions was not equivalent to that of the theory sessions, and the rest, 19.20% (n=29) of the students remained neutral, as illustrated in Figure 4.4.

Human resources: Apart from material resources, the shortage of human resources, particularly in the clinical setting has also been found to be a hindrance to the integration of theory and practice in nursing education. Significantly, 81.46% (n=123) of the students reported that a clinical staff shortage affected their learning in the clinical area, 11.92% (n=18) disagreed, while 6.62% (n=10) remained impartial as depicted in Figure 4.4. Teaching carried out by subject specialists was also viewed as a barrier to the integration of nursing theory with nursing practice. Half (50%) of the respondents disagreed, while a quarter of the educators, 25%, (n=4) agreed to this notion. Figure 4.4 gives an illustration of students' perceptions on the lack of resources as a barrier in nursing education.

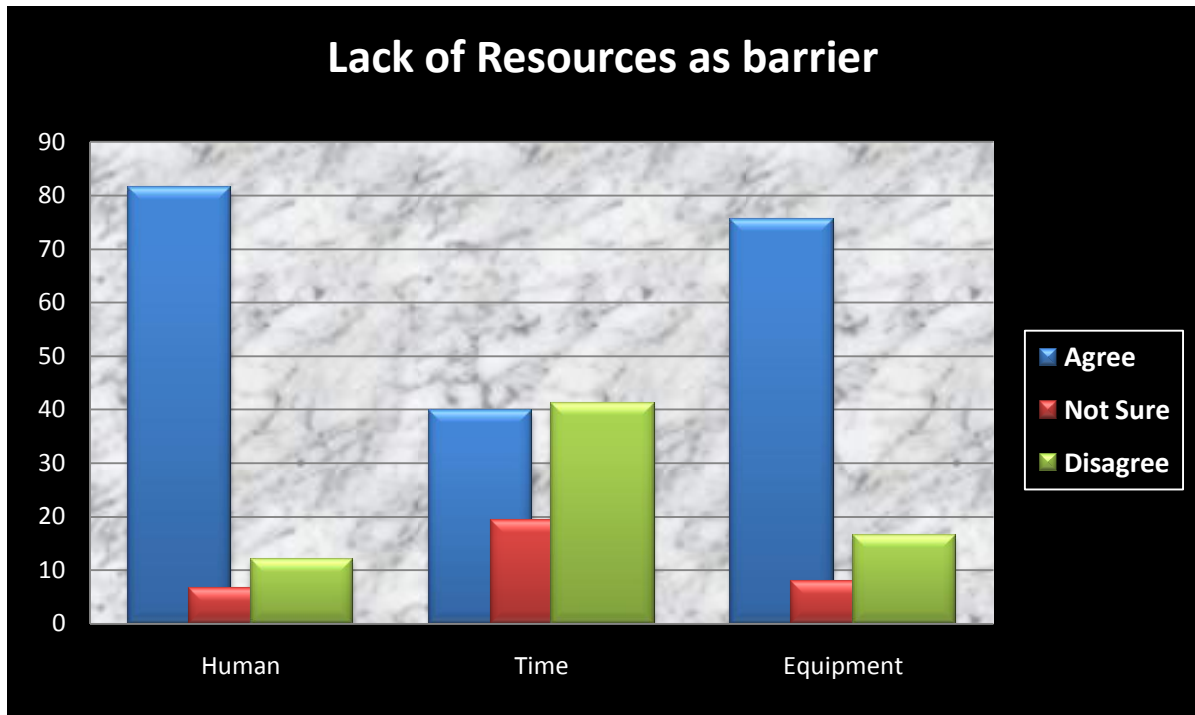


Figure 4.4: Students' views on resource unavailability as a barrier to the integration of theory and practice

4.5.2 Clinical supervision and support

Although the majority of the students, 94.04% (n=142) felt that clinical supervision was essential in the bridging of theory and practice in nursing education, 15.23 % (n=23) felt that it was inadequately implemented and thus poses a hindrance. Furthermore, when asked if educators spend at least an hour with each student per month in the clinical area, 43.71% (n=66) agreed, 38.41% (n=58) disagreed and 17.88 % (n=27) remained neutral. More than half, 57.62% (n=87) however viewed the nurse educators as role models in the practice setting too, whereas 25.83% (n=39) disagreed.

Support: the majority of students, 86.75% (n=131) agreed to the need for preceptors or clinical instructors who could support them through guidance and role modelling in integrating theory with practice whilst in the clinical setting. There were mixed feelings

among students as to whether the support they received from clinicians was adequate or not to facilitate the integration of theory and practice. About 50.99% (n=77) of the students felt that they received adequate support in the clinical area from the clinicians, whereas about 33.77% (n=51) denied being supported, the rest were unsure. About 38.41% (n=58) students were unsure whether the university is updated on what and how students were doing in the clinical settings whilst 33.11% (n=50) refuted such communication.

Nurse educators on the other hand stated that there was no middle person to serve as a link between the university and the clinical setting; 62.5% (n=10) attested to that notion, and 18.75% (n=3) were uncertain. Despite these responses, 68.75% (n=11) of the educators felt that the clinical nurses were helpful and supportive to students. With regard to clinical supervision, only 37.5% (n=6) agreed that there was inadequate time available for this task; thus such inability may be viewed as a barrier to the integration of theory and practice in nursing education. About 56.25% (n=9) of the nurse educators however refuted this notion.

Regarding expending time on clinical supervision: 50% (n=8) of the educators agreed that they spent a considerably greater amount of time travelling to clinical sites where students were practising, than on the actual supervision of students, and 37.5% (n=6) did not agree. However, only 18.75% (n=3) agreed that they spent a significant amount of time tackling students' issues in the clinical area rather than conducting the actual supervision; and 68.75% (n=11) denied that this happened to them. Responses regarding the duration of clinical supervision varied widely among participants, from 12 to 60 hours per month. On reviewing records, there is no standard time specified for clinical supervision, however, the Swaziland Nursing Council (SNC) states that students should be accompanied for as long as they are in

the practice setting. Therefore the duration and frequency of such accompaniment is not clearly defined.

4.5.3 Curriculum issues

Students were asked whether they felt that the books or any literature or material prescribed was relevant to country's health and social context, and 39.07% (n=59) of the participants responded affirmatively, whilst 38.41% (n=58) disagreed. The remaining 22.52% (n=34) remained neutral as depicted in Table 4.7. Concerning demonstrating the link between theory and practice, 70.20 % (n=106) thought prescribed empirical material did demonstrate this, while 17.22% (n=26) were not certain, and the remainder; 12.58% (n=19) did not share the same thoughts.

From the nursing educators' responses on the relevance and applicability of prescribed learning resources to local practice, 87.5% (n=14) were affirmative, the remainder were not sure as illustrated in Table 4.7 below.

Participants	Agree	Not sure	Disagree	Total
Educators	14 (87.5%)	2 (12.5%)	0	16 (100%)
Students	59 (39.07%)	34 (22.52%)	58 (38.41%)	151 (100%)
Total	73 (43.71%)	36 (21.56%)	58 (34.73%)	167 (100%)

Table 4.7: Prescribed learning resources as relevant and applicable for local practice

Furthermore, 93.75% (n=15) of the educators agreed to using nursing research findings to support the subject of what is taught, and all 100% (n=16) agreed to encouraging students to use evidence from literature in their practice, as well as in their learning in general.

4.5.4 Sequencing of theory and clinical practice sessions

It was enquired as to whether the sequencing of theory sessions with clinical practice enabled the integration of theory and practice, and 48.34% (n=73) of the student participants agreed, while 34.44% (n=52) denied this and 17.22% (n=26) were not sure. Half of the nurse educators agreed to this notion and about 37.5% (n=6) held a contrary view, and about 12.5% (n=2) were uncertain as indicated in Figure 4.5 below.

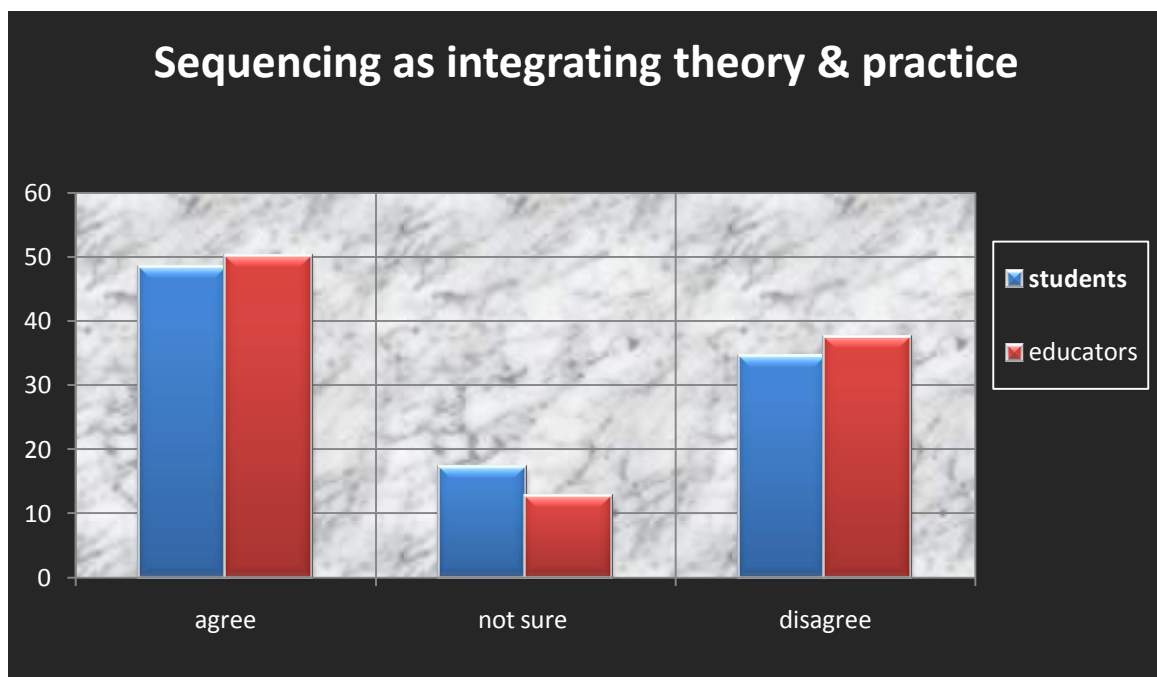


Figure 4.5: Participants' views on sequencing as integrating theory and practice

4.6 Barriers to the integration of theory and practice

Open-ended questions were posed to both students and nurse educators to further determine the barriers to the integration of theory and practice in nursing education. Responses varied especially among students. The researcher grouped the responses according to common themes, and three main themes emerged: a) lack of resources, b) poor collaboration between higher education institution and practice settings, and lastly c) pedagogic factors.

4.6.1 Lack of resources

The most common theme established from the responses was the lack of resources and equipment for practice in the clinical setting and the university's clinical skills or demonstration laboratory. About 93.38% (n=141) students thought that the lack of equipment and resources was an obstacle to the integration of theory and practice. From the nurse educators' side, only 31.75% (n=5) made that observation. An extract from one of the student participants stated:

They want us to practise skills the right way yet they do not have an idea of what is happening in the hospital, we improvise a lot and that is what we practise, when exams come, we fail because we are used to taking shortcuts, what can we do when we don't have equipment and supplies to use. Even the demonstration lab does not have supplies.

4.6.2 Poor collaboration between Higher Education Institution and the practice setting

The other category was poor collaboration between the faculty and the clinical staff. Responses that were captured from the data ranged from poor relations, lack of communication between faculty and clinical staff to a lack of support for the students. In this category, the lack of a middle man whose role is to ensure the liaison between the university and the clinical setting in the form of preceptors, mentors or clinical instructors was also recorded. Student participants who confirmed this category as a barrier to the integration comprised 33.77% (n=51). About 37.5% (n=6) of the nurse educators also felt that collaboration between the faculty and the clinical staff was poor. One of the responses by a nurse educator was that:

There is no mechanism to link the university and clinical practice areas. There are no clear guidelines on how these two entities should collaborate. The clinical laboratory

does not offer an opportunity for students to learn and experiment on a self-directed, individual basis, and there is a lack of equipment both in the lab and clinical area.

4.6.3 Pedagogic factors

The last category comprised pedagogic factors that were raised as barriers to the integration of nursing theory and practice. Issues of teaching and learning that were recorded included the imbalance between theory and practice in terms of time allocation, as well as the approaches to the processes. Examples included the lack of self-direction from the students as observed by four nurse educators (25%), and poor supervision or clinical accompaniment as observed by a total of 22.52% (n=34) students. Some of the barriers mentioned emerged from the practice environment, such as clinical staff having no time for students, their lack of teaching skills, and the lack of an accredited practice or training institution by 18.75% (n=3) of the nurse educators.

4.6.4 Teaching philosophy

Nurse educators were asked to state their teaching philosophies, and out of the total (n=16), 68.75% (n=11) responded, while the remaining 31.25% (n=5) did not. From those who responded, the themes which emerged from the educational philosophies varied among the educators. Common themes included empowerment of students suggested by 37.5% (n=6), employment of andragogic principles of learning indicated by 12.5% (n=2) and impartation of knowledge by 25% (n=4) of the participants. Some of the excerpts from the participants stated that:

A student is an adult learner, hence all principles of adult learning must be applied when dealing with students.

Nursing as a practical profession, must be thoroughly learned (theory), for the purpose of effective and meaningful practice.

4.7 PARTICIPANTS' SUGGESTIONS AS TO HOW TO IMPROVE THE INTEGRATION OF THEORY AND PRACTICE IN NURSING EDUCATION

Participants were asked to give suggestions as to how they thought theory and practice could be integrated in nursing education in the country. The suggestions offered by the participants were grouped according to common themes and three main assertions are presented. These were a) training hospital, b) improving communication between the faculty and the clinicians and lastly c) the teaching and learning process.

4.7.1. Training hospital

The first theme was a response to the lack of equipment and resources for practising clinical skills. About 16 (10.5%) suggested that the university should establish a training hospital which could cater for the training needs of students. One of the students' responses in this regard was that:

There is a need for a university hospital which will be equipped and which will allow us to practise the right way.

A total of 49 (32.5%) students suggested the improvement of the clinical laboratory, ensuring that the hospital was well-equipped so as to facilitate practising as expected. About 3 (18.8%) nurse educators also came up with a similar suggestion, and one of the responses was that:

The institution could have its own training hospital with mentors fully equipped with skills to assist or guide learners in applying theory to practice, The staff there will know that we are there to learn, so they will be willing to support us unlike in the government institutions.

4.7.2 Improve communication between educators and clinical staff

The improvement of communication between the faculty and the clinical staff in the clinical settings emerged as an important factor for enhancing the bridging of the theory-practice gap in nursing education. This included the offering of support to students, and the appointment of preceptors who could work closely with the students whilst in the clinical setting. About 33.77% (n=51) students made these suggestions and significantly, 10 (62.5%) of the educators thought so too, emphasising the inception of the preceptorship program. Some of the nurse educators' responses were:

Establish a cadre of preceptors at faculty level to provide preceptorship; be located in accredited clinical or practice sites whose job, among others, would be to supervise students during clinical placements.

Improve relations between clinical practice staff and the faculty through frequent meetings for feedback, updates and provide incentives; for example, credit points, or simply a recognition certificate.

4.7.3 Teaching and learning process

The last theme comprised the teaching and learning process and the curriculum and reforming of programs. About 31.13% (n=47) students suggested the balancing of theory and practice hours, reduction of courses, and restructuring as well as sequencing these two parts of nursing education so that one would be able to apply immediately what had been experienced in theoretical sessions. However, there were two viewpoints regarding the restructuring of the program. Some felt a block system could improve the integration, whilst 11.26% (n=17) thought that immediate practise would work even better. Some of the students' responses were:

Theory should be closely linked to practical, that is, some procedures demonstrated in the lab should be practised in the clinical setting the next day.

The block system is better, because I get to practise without stopping, I don't have to break for theory, and in that way I get to learn clinical skills and become proficient, rather than practising for two days. There is no commitment, because there is no continuity, and no need to even know the patients that well, if I will only see them for two days.

4.8 Conclusion

The chapter presented a detailed descriptive analysis of the quantitative data and a thematic presentation of the qualitative data. The findings of the study revealed that participants believed that a gap between theory and practice in nursing education existed in the country. Nurse educators felt that they had a role to play in facilitating the integration of theory and practice through clinical supervision, and a collaborative effort with the students and the clinicians. It was revealed that pedagogic factors that were student-centred and that encouraged self-direction were thought to be essential in the facilitation of theory and practice in nursing education. Barriers that were perceived to widen the gap between theory and practice included the lack of resources, poor communication between faculty and the clinicians, as well as the lack of preceptors or clinical mentors who would guide students in the clinical environment. Suggestions as to how to improve the integration of theory and practice were also solicited. It was suggested that a training institution could serve to bridge the gap between theory and practice, improved communication and professional relations between faculty and clinical staff, as well as improving the teaching and learning process. The next chapter will present the discussions of findings, recommendations and the conclusion.

DISCUSSION, RECOMMENDATIONS AND CONCLUSION

5.1 INTRODUCTION

Following the analysis of the data, this chapter presents a discussion and interpretation of the findings in line with the reviewed literature on the phenomenon of this study. Additionally, this chapter also presents the recommendations, limitations and conclusion. This study was aimed at exploring the perceptions of students and nurse educators on the integration of theory and practice in nursing education in Swaziland. The objectives of this study were to: describe the nurse educators' understanding of the concept of theory-practice integration in nursing education; describe the students' perceptions of theory and practice integration in nursing education; explore ways in which theory and practice integration is facilitated in the Nursing Department of the Faculty of Health Sciences (FHS) at the University of Swaziland (UNISWA) and lastly, to describe barriers to the integration of theory-practice in nursing education in the FHS at UNISWA. The summary of this study's findings was that:

- Nurse educators perceived the theory and practice gap in nursing education as existent in Swaziland.
- Nurse educators believed that they had a role to play in facilitating the integration of theory and practice in nursing education in the country through a collaborative effort with the student and the clinicians.
- Clinical nursing education was viewed as an essential component in the integration of theory and practice in nursing education.
- Participants viewed the lack of resources in the practice setting as well as in the clinical skill or demonstration laboratory as the main factor that hindered the integration of theory and practice in nursing education in Swaziland.

- Distorted lines of communication and a lack of collaborative efforts between the university and the clinical setting were also viewed as a barrier to the integration of theory and practice in nursing education in Swaziland.

5.2 THEORY AND PRACTICE GAP IN NURSING EDUCATION

In this study, the gap between theory and practice in nursing education was found to exist. This was confirmed by all the nurse educators who participated in the study; with 68.8% viewing the gap as wide, 18.8% asserting that the gap is very wide, and the rest saying it is narrow as asserted by various studies (Corlett, 2000; Evans, 2009). Haigh (2009) asserts that the theory-practice gap exists and is not to be viewed as a bad thing, but as an indication that the nursing profession is dynamic, and that the discipline is evolving with the development and testing of theories. Gallagher (2004) views the gap between nursing theory and practice as a construct without physical evidence of its presence, but as an explanation of the relationships and contentions between opinions. In this study however, participants strongly agreed that theory-practice integration also refers to nursing theory, research and practice combined, each facet informing the other. This claim is supported by McCaugherty (1991) who maintains that without theory, practice is sterile. Dale (1993) agrees that nursing practice based on theory, is warranted, focused, and can be controlled by the nurse as she has knowledge of events and can thus demonstrate accountability.

5.3 PERCEPTIONS OF THEORY AND PRACTICE INTEGRATION IN NURSING EDUCATION

From the findings of this study, it was established that all the nurse educators who participated in this inquiry viewed theory and practice integration in nursing education in light of Carper's four ways of knowing which were legitimised as empirical, aesthetic, ethical

and personal knowing. In this study, it emerged that nursing theory has been translated into the empirical way of knowing in nursing education, in the sense that it comprises the knowledge of literature, based on research and other tested evidence. On the other hand, Carper (1978) views nursing practice as the aesthetic way of knowing and is what occurs in real clinical situations. With reference to theory-practice integration, it is viewed as the ability to apply what is learnt empirically in clinical practice, and this study confirmed this notion, as all (100%) of the educators who participated in the study thought so. This is congruent with Landers (2000), Corlett (2000), and Evans (2009) who described theory as what is taught in the classroom and practice as what occurs in the clinical area. Ousey and Gallagher (2007) gave an orthodox referential position of the theory and practice gap in nursing education as the variance between theory; what is found in textbooks and is associated with formal education, and practice, the everyday duties of the nurse.

It was also found that the nurse educators who participated in this study (n=16) felt that it was their responsibility to facilitate the integration of theory and practice in nursing education, in as much as they believed that the students and clinicians have a role to play too. This is in agreement with Haigh (2009) who considers all three parties as equally responsible. Likewise, Landers (2000) believes that it is the educator who has a major role in integrating theory and practice in nursing education. Evans (2009) asserts that high quality clinical training demands the integration of teaching, supervision and clinical practice, thus the collaboration of the teachers, clinicians as well as the students. It is espoused that the nurse educator is in a better position to enhance the roles of the participants in the integration of theory and practice in nursing education, since s/he facilitates the teaching and learning process, although Edmond (2001) argues that the role of the nurse educator is complex and questionable considering its correctness and validity in as dual a role as it is. Saarikoski et al.

(2009) maintain that the nurse educator is better positioned to assist students with the theoretical aspect of nursing regarding how it can set the base for practice and can furthermore provide similar support to the practitioner. Therefore, the nurse educator is essential in the preparation of students for practice as indicated by several researchers (Andrews et.al., 2006; Saarikoski et al., 2009). Gillespie and McFetridge (2006) suggest that as nursing education is a practice-based profession, teaching must be dynamic, and the nurse educator should be actively involved with the needs of the students and the clinicians; showing mutual respect for both groups. This supports the notion that an environment which displays mutual support and respect often yields beneficial results for all participants.

It was established that all nurse educators who participated in the inquiry viewed clinical nursing education as an essential component in the integration of theory and practice in nursing education. Furthermore, the participants agreed that teaching and learning must occur in all learning settings, as Kelly (2007) espoused; in the clinical setting, the classroom, skills laboratories and in seminars. Using Carper's ways of knowing, in this study, nursing theory, which can be referred to as the empirical way of knowing, is acquired in the classroom, clinical skills laboratories and in seminars, whilst nursing practice, the aesthetic way of knowing, occurs through simulation in the clinical skills laboratory, as well as in the clinical setting with or on actual clients. Arguably, based on the complexity of the clinical area, teacher effectiveness can be difficult to establish since the clinical environment can be more difficult to control than the classroom or skills laboratory (Kelly, 2007). The results of this current study revealed that the educators also felt that teaching must occur in the clinical setting.

5.4 WAYS OF INTEGRATING THEORY AND PRACTICE IN NURSING EDUCATION

5.4.1 Pedagogic approaches

In this study, educators favoured the use of problem-solving approaches to the conventional method of teaching and learning, however, the questionnaire did not establish which methods were used in the university. The participants however, alluded to the use of case studies, and real life or clinical problems to stimulate teaching and learning, as well reflections of theory on practice experiences and *vice versa*. It also emerged that nurse educators agreed to the preference of guided reflection as a learning technique that can be used to integrate theory and practice. However, it appears that conventional pedagogic approaches were still practised widely in the institution. In line with this observation, Distler (2007) discovered from his inquiry that student-centred approaches were viewed as superior by both students and academic staff, but required a great amount of time and effort prior to the inception of the curriculum. The rewards of such approaches were far-reaching, yet nursing education institutions fail to accept this change, and continue to teach as they were taught (Distler, 2007).

It also emerged that self-directed learning (SDL) was likewise viewed as another element of the problem-solving approaches which facilitate the integration of theory and practice in nursing education. It was revealed that learners are empowered to be in charge of their own learning process. O'Shea (2003) adds that SDL is beneficial to the teaching and learning process, as it not only increases the student's confidence and autonomy, but the motivation and the development of lifelong learning skills. It was found that students and lecturers viewed self-direction in nursing education as an important tool for bridging the theory-practice gap; however, it is worth noting that it was not practised in this institution, especially

in the facilitation of clinical skills, since the skills or demonstration laboratory was more teacher-directed. This is in line with the study conducted by Freeth and Fry (2005) who reported that SDL as an element of CSL did not emerge as strongly from their study as they had expected. This is contrary to Uwimana (2009) who in her study found the CSL to be promoting self-direction; students had the freedom to practice clinical skills with the minimum direction. Nevertheless, a common factor in the findings of this study and that of Uwimana's (2009) was that it was reported that participants believed that the use of CSL helped in the bridging of the theory and practice gap in nursing education.

5.4.2 Clinical nursing education

The results of this study indicated that clinical nursing education was perceived as an essential component in the integration of theory and practice in nursing education. It emerged from this study that both the clinical environment as a practice site, and the didactic process that occurs in the clinical setting were viewed as crucial in facilitating the narrowing of the gap between theory and practice in nursing education. This is coherent with Mannix et al. (2009) who viewed clinical nursing education as a critical component of undergraduate nursing education. Similar views are held by Gleeson (2008) who believes that the clinical learning environment influences the development of students' knowledge, attitudes, psychomotor skills and clinical solving skills.

Nurse educators in this study indicated the awareness of their role in clinical teaching; however confusion lay in their role in the technical integration of theory and practice. Although it is well documented that clinical nursing education is essential in the bridging of theory and practice in nursing education, there is much controversy in literature regarding the role of the nurse educator in clinical teaching (Cave, 2005; Conway & Ewlin, 2007; Elliot &

Wall, 2008; Mannix et al., 2009) which is in line with the findings of this study. The findings revealed that 37.5% of the participants reported being uncertain of their role as clinical educators in the integration of theory and practice. This is congruent with Williams and Taylor (2008) who, in their investigation of nurse educators' perceptions and experiences of undertaking clinical practice found that participants were uncertain of their role in the integration of theory and practice in clinical nursing education. It was found that nurse educators' perceptions of their role in clinical practice were mixed amongst participants. Some were uncertain of their role or what was expected of them in the clinical area in terms of relating theory to practice. Gillepsie and McFetridge (2006) are of the same view that it can be difficult to define the role of the nurse educator in linking theory and practice, due to the various dimensions of the role such as administration, teaching and research. Unlike Carson and Carnwell (2007) who explored the role of the lecturer practitioner in the integration of theory and practice, participants in their study were knowledgeable of their role in the bridging of theory and practice. Presumably, their findings could be attributed to the educational model which incorporates the role of lecturer practitioner or link tutor who works collaboratively in clinical education with the student nurses. Barrett (2007), and Mannix et al. (2009) state that most higher education institutions (HEI) use the link lecturer model, whereby the lecturer practitioner or link tutor is responsible for supporting and scaffolding students in assigned clinical link areas, however the value and purpose of this role remain contentious. In different countries, a variety of models are used for student support in the clinical setting, and with each model, different personnel are assigned. In the United Kingdom and Australia, it is the lecturer practitioner and the link tutor (Barrett, 2007; Mannix et al., 2009).

The study also indicated a concern in the integration of theory and practice in terms of clinical credibility and the competence of nurse educators, albeit that the nurse educators felt competent to facilitate clinical learning, and that their clinical skills and knowledge were up to date. In line with these findings, Cave (2005) believes that nurse educators must have sufficient clinical aptitude so that they can apply theory to current practice. Elliot and Wall (2008) share the same views, considering that it is necessary for nurse academics to have an understanding of the knowledge and skills required by students in the clinical area. Elliot and Wall (2008) assert that the clinical knowledge and skill can only be attained through clinical practice. Fisher (2005) argues that the idea of clinical credibility was mostly associated with the perceptions of students and the educators' ability to apply theory to practice. Likewise, Ramage (2004) highlighted clinical credibility as an attribute furnished to lecturers by students and clinicians, therefore it is earned, and does not automatically come with the role. Arguably, nurse educators do not have to be clinically credible to effectively facilitate the teaching and learning process with regard to clinical nursing education (Ousey & Gallagher, 2010), and thus it is not expected that they would be clinically credible since they do not spend enough time in the clinical setting, just as the clinicians cannot claim credibility as educators. In line with the findings of this study, Carr (2007) examined changes in nursing education through personal accounts of the nurse educators, and discovered that those who had worked in higher education occasionally visited the clinical settings, ultimately losing clinical expertise. Carr further indicated that the majority of nurse educators are not practitioners anymore, but rather persons who use previous clinical experience in their academic role. Humphreys et al. (2000) maintain that within the classroom, clinically credible nurse educators can narrow the theory-practice gap by basing the didactic process on a more realistic and relevant picture of what is actually happening in practice.

5.5 BARRIERS TO THE INTEGRATION OF THEORY AND PRACTICE IN NURSING EDUCATION

This study showed that students' perceptions of barriers to the integration of theory and practice in nursing education were found to vary according to the different levels of study, and according to having had experience working as a nurse. Third year students had the highest mean score with the lowest scores in the Midwifery and Community Mental Health Nursing programmes. This variance can be attributed to the different factors contributing to institutional contexts, clinical settings, or the group of students. The perceived barriers that emerged from the participants which were thought to widen the gap between theory and practice included a) the unavailability of resources, b) the imbalances in the views of theory and practice at the university, c) the lack of supervision and support, d) poor communication and relations between nurse educators and the clinicians, e) curricular issues, as well as, f) the teaching philosophy. These will be discussed next.

5.5.1 Unavailability of Resources

In this study it was found that the unavailability of both material and human resources in the university and in the clinical setting posed a hindrance to the integration of theory and practice in nursing education. The lack of material resources was highlighted with regard to equipment and supplies especially in the clinical skills or demonstration laboratory, and to a greater extent, in the clinical settings where students often found themselves improvising and no longer practising nursing skills as they ought to have been doing.

Staff shortages, particularly in the clinical settings were reported to hamper the integration of theory and practice. Without adequate human and material resources, the integration of what

is learnt in theory, the 'ought' can be hindered when it has to be translated into the reality of practice (Maben, Latter and Clark 2005). Matching these findings, Maben et al. (2005) established amongst other factors; time, staff shortages and work overload as prime in the widening of the theory-practice gap in nursing education. Similar findings were also reported by Keetsemang et al. (2008) who conducted a study on student evaluation of the CSL. These researchers discovered that the CSL lacked adequate equipment for every student to practise the same skill at one point in time, coupled with the shortage of facilitators in the lab, particularly during busy hours. This was identified as a barrier to practising at the laboratory. Morgan (2006) pointed out that staff shortages and a lack of resources exposed students to poor clinical practices. Registered staff members tended to opt for simpler and quicker approaches when conducting clinical skills, and not the ideal methods. According to Morgan (2006), students become socialised to conducting clinical skills as they observe and learn without the confidence of questioning such behaviours. Evans (2009) suggests that both the HEI and the clinical setting should demonstrate a concerted effort in ensuring that a well developed and well-resourced learning environment for students' training is promoted. The lack of material resources and the shortage of staff in the clinical setting can also exacerbate bad practice.

5.5.2. Imbalances in the views of theory and practice at the university

This study revealed that the unavailability of time and increased staff workload was primarily linked to an increased expectation on the role of the nurse educator in HEI. This was another issue which presumably led to the lack of equilibrium between classroom and clinical teaching, thus widening the gap between theory and practice. Similar to these study findings, numerous researchers (Williams & Taylor, 2008; Owen et al., 2005) reported work pressures,

competing demands, and the virtual significance placed on scholarly activities over the detriment of clinical teaching which is given a low priority in nursing education.

In this study, about 31.75% of educators thought clinical education received low priority in the university, and about the same proportion of educators were not sure if this was true. With the advent of higher education in the training of nurses, clinical teaching is said to receive little attention in universities when compared to classroom teaching and research. Over a decade ago, similar findings were reported by Clifford (1995) who stated that factors which prevented nurse educators from engaging in clinical teaching included workloads, with reference to classroom teaching, research and other commitments, particularly attending meetings and other administrative engagements of the university. These findings are supported by Elliot and Wall (2008) who attribute this imbalance to the HEI not valuing clinical teaching but research, which is manifested by the rewards of engaging in clinical practice as few or zilch.

5.5.3 Lack of Support and Supervision

The findings of this study showed that 90.73% of students felt that clinical accompaniment or supervision were vital in bridging of the gap between theory and practice in nursing education, while 15.23 % thought that it was inadequately implemented. In line with the results of this study, several researchers (Severinson, 2009; Butterworth, Bell, Jackson & Pajnkinar, 2008) have found clinical supervision to be essential in the integration of theory and practice in nursing education. In support of this study's findings, Aston and Molassiotis, (2003) discovered that students were in favour of clinical supervision because it allowed them to integrate theory and practice. According to Jones (2003), clinical supervision has the potential to improve practice through improved comprehension, and heightened ability to

solve clinical problems through support and guidance. Furthermore, Jones claims that through supervision, students and clinicians can be supported emotionally. Ultimately, the findings of this study could not establish the duration and frequency of clinical supervision as conducted by nurse educators, but it was found that educators conducted supervisions as they saw fit. This is in accord with Butterworth et al. (2008), who suggest that there is little evidence of what might be regarded as the 'gold standard' prescribing the duration and frequency of effective clinical supervision. It is, however, at the discretion of the clinical supervisor to approximate the inclination of each individual student.

The study results also showed that the absence of preceptors, mentors and/or clinical instructors in the model of teaching and learning at the university was described as a barrier to the integration of theory and practice. About 86.75% of the participants expressed the need for preceptors in the clinical setting who would not only support and supervise students in the clinical area, but would also serve as role models, fostering quality and safety of nursing care rendered by students. Gleeson (2008) emphasizes the significance of preceptors in the socialization, teaching and assessment of student nurses as crucial in assisting students to integrate theory with practice. For Gleeson, the preceptorship model is preferred, because the preceptor is equipped with the knowledge and skills to support students in the clinical setting and is more concerned with the development of clinical competence, while the mentor's role involves long lasting relationships. Andrews et al. (2006) reported that mentors in nursing education were seen as role models who positively influenced learning and professional socialization for students, hence students practising with a mentor or preceptor are believed to be learning from an expert in an educative, safe and supportive environment. A couple of studies (Aston & Molassiotis, 2003; Burns & Paterson, 2005; Myall, Levett-Jones & Lathlean, 2008) emphasised the need for student support while on clinical placements. Myall

et al. (2008) found that students had reported a positive and fruitful experience with the mentoring process and were able to attain their learning outcomes. According to Myall et al. (2008), students were content with the relationships which contributed to the socialisation and connectedness with the profession and practice. In agreement with these views, Andrews et al. (2006) asserted that nursing as a practice-based profession has always relied on clinical staff to support, teach and supervise students in the practice setting. Evans (2009) recommends that nurse educators, mentors and/or preceptors should supervise, support and appraise students in a tripartite liaison. Gillespie and McFetridge (2006) suggest that practitioners in service need to be conscious that innovations in nursing education and current practice have benefits for both practice and patient care, and that achievement of this can only occur through collaboration in relations between HEI and practice settings in line with the findings of this study.

5.5.4 Poor communication and relations

In as much as communication is viewed as a facilitative way to enhance the integration of theory and practice in nursing education, poor relations can be a barrier. It was established in this study that poor communication between the faculty and the clinical area was a barrier to the integration of theory and practice, as it deterred students from learning effectively at the clinical sites. These results epitomise a study conducted by Andrews et al., (2006) where students were dissatisfied with the communication between the academic institution and the practice setting. According to Andrews et al. (2006), it was found that clinical staff were often not aware of the students' learning objectives and pre-registration requirements. Haigh (2009) highlights the fact that the complexity that practitioners and academics experience when tackling the theory-practice gap lies in the fact that these two disciplines clearly lack

collaboration. Hence Gidmans (2001) suggests that it is necessary to improve communication links between academic institutions and practice settings to enhance mutual comprehension of the curriculum, and clarification of the roles of all participants involved in the training of nurses. Ramezani and Ravari (2009) posit that improvement of communication skills coupled with innovative teaching approaches is necessary in nursing education programs. Duffy et al. (2000) affirm that good communication is inherent in the promotion of participation and a caring attitude. Ousey and Gallagher (2010); Burns and Paterson (2005) also emphasised the need to establish strong partnerships and open communication between the HEI and the practice setting to effect students' integration of theory and practice.

5.5.5 Curricular issues

Results of this study showed mixed views and doubts among students as to whether the learning material prescribed at the university helped in the integration of theory and practice. Slightly more than a third (39.07%) of the students agreed that these learning materials assist in the integration of theory and practice, and almost an equivalent proportion (38.41%) disagreed with this mindset. On the other hand, nurse educators were in agreement that the prescribed literature used in theory was relevant to clinical practice. According to Uys (2002), for curriculum relevance, it is important that the content selected for the nursing syllabus should depend on the priority needs of the community served; however, most nursing textbooks are based on American or European contexts and do not address the diseases and care patterns rampant in Africa. McCaugherty (1991) views textbook descriptions of disease and patient care as classical which are seldom seen in actual practice. Furthermore, McCaugherty suggests that patient-based tutorials can make up for the textbook theory and can help in the integration of the theory-practice. Barnard, Nash and O'Brien

(2005) suggest that nurse educators have a responsibility to train nursing students in such a way that they develop a sound repertoire of information literacy skills, to know how to search and to use critical thinking skills in applying available information to their current and local situations. Critical thinking skills are required for clinical practice and lifelong learning, thus integrating theory and practice.

The use of nursing research findings was also found to integrate theory and practice in nursing education, through evidence-based practice (EBP). In this study, educators agreed on the use of research evidence as a reference to the theory or content taught in class and in practice, and students were encouraged and trained to use scientific evidence in clinical practice. In line with these findings, Billings (2006) pointed out that the gap between theory and practice is a result of the failure to integrate research within contemporary nursing practice. Furthermore, the ability to incorporate nursing experience and intuition with tested recent clinical research can also be attributed to reducing the theory-practice gap in nursing. Moch et al. (2010) stressed that students will experience the inherent challenges of applying tested knowledge in the care of real patients, thus EBP is an active, hands-on component of nursing education, and indeed of the integration of theory and practice.

Another curriculum issue which emerged from the findings of this study was that of sequencing students' practical experience. Burns and Paterson (2005) suggest that students need to be positioned in the right place at the right time to assist them to achieve the appropriate clinical competencies required for professional registration. The results of this study, however, displayed mixed feelings among students' and educators' groups concerning the sequencing of theory and practical sessions with regard to the integration of theory and practice. Some participants thought that the block system could assist in the integration of

theory and practice than the other system of having concurrent theory-clinical sessions. McCaugherty (1991) argues that the block system can create problems for students in correlating learned subject with clinical experience, and in so doing, widening the gap further. This arrangement may become a barrier for certain students, as they may find it difficult to readily correlate what they learned in class months ago with the practical experience because of the time lag. Ferguson and Jinks (1994) contend that the theoretical block system could not be linked to the practical experience because of the time lag between the implementation of the two. Henderson, Forrester and Heel (2006) maintain that it is essential to ensure that the curriculum is developed in such a way that learning objectives are appropriately sequenced. Therefore they affirm that theoretical knowledge and the practical abilities of students must be coordinated to promote the integration of theory into practice; which is the main aim of clinical practicum.

5.5.6 Teaching philosophy

The study findings revealed that some of the participants, (31.25%) could not articulate their educational philosophies, and for those who could, different teaching philosophies were indicated. These include the conventional, progressive educational philosophies. These philosophical foundations that emerged from this study serve as guides underpinning the selection of teaching and learning strategies used by the nurse educators in their practice. Petress (2003) argues that many educators claim that they have no philosophy of education, yet their practices with regard to teaching and learning are somehow influenced by philosophy. A teaching philosophy serves as a guide to educational practice, and can thus determine the teacher's capacity to apply educational theory to practice and, in so doing, facilitate the same for student nurses. Kagan et al. (2009) posit that "nursing practice does

not arise exclusively of and therefore is inherently and constantly underpinned by theory and philosophy” (2009, p. 83). According to Pratt et al. (2007), for effectiveness in nursing education; teaching strategies must be harmonious with the teacher’s beliefs, intentions, and performance. Kagan et al.’s (2009) study was aimed at presenting the theoretical and philosophical assumptions of a Nursing Manifesto written by nurse scholars. The analysis of this study produced an epistemological framework based on emancipation principles to advance praxis in nursing. Although their study considered a broad spectrum of philosophies and theories that influence nursing, the common fact was that there is a need for a philosophy to guide nursing practice, education and research, thus bridging the gap between them.

5.6 Suggestions on improving ways of integrating theory and practice in nursing education

Participants came up with several suggestions on how to bridge theory and practice in the university. Commonly, considering the inadequacy of resources in the clinical skills laboratory and the practice settings, participants suggested that a training institution owned, or in partnership with the university is necessary, as it can assist in the facilitation of theory and practice integration. Not only will this training institution ensure the availability of resources and supplies, but the culture and attitude of the personnel working there will be one that accommodates and enhances the training of nurses. Literature reveals that to maximise the value of learning within the clinical context, the environment in which it occurs is crucial (Henderson, Heel & Twentyman, 2007; Edmond, 2001) thus, a partnership between the health care institution and HEI should be based on clear interactive channels (Freiburger, 2002; Henderson et al., 2006).

The issue of supervision and placements can be minimised with the establishment of a cadre of preceptors or mentors, who not only serve as student support or clinical supervisors, but can form a link between the practice settings with the university. Communication between staff and faculty can be improved with feedback on students' progress. Participation of all stakeholders can be facilitated more easily in such an institution than what is currently being experienced with the effects of bureaucracy in state-owned health facilities. Such partnerships can also encourage commitment from both the health care organisation and the education institution to ensure the best clinical practicum for students as well as the clinical staff. Henderson et al. (2007) view collegiality, collaboration and the eagerness of staff to help nursing students as essential elements that promote learning in the clinical setting, thus facilitating theory and practice integration in nursing education. Moreover, student performance and progress can be monitored and supported with appropriate interventions whenever necessary as indicated in this study's findings.

5.7 LIMITATIONS OF THE STUDY

The study was unable to capture the perceptions of clinicians with whom the students practice in the clinical settings on the integration of theory and practice in nursing education. Their views as to how theory and practice can be integrated are valuable in nursing education, as they can provide the practical aspect of the praxis in nursing. The study cannot be generalised to the entire country, since it was conducted in only one nursing education institution.

5.8 CONCLUSION

It emerged from the results of this study that students and nurse educators believed that the gap between theory (what is taught in classroom) and practice (actual clinical practice in the

actual clinical setting) in nursing education in Swaziland exists. In literature, the shift from hospital-based training to the university model has been viewed as one factor which has contributed to this gap. Students' perceptions of barriers to the integration of theory and practice were significantly influenced by their levels of study and their exposure to the work environment. But with the nurse educators, none of the demographic variables were found to have influenced the participants' perceptions. Several factors that were thought to contribute to the disparity between theory and practice emerged, including limited resources, both human and material, in the clinical skills or demonstration laboratory and to a greater extent in the clinical settings were identified by both students and nurse educators as barriers to the integration of theory and practice in nursing education.

Clinical teaching was found to be receiving a low priority when compared to classroom teaching and the scholarly function of nurse educators. Nurse educators were well aware of their role in clinical teaching, however some were unsure of their role in the integration of theory and practice with regard to clinical teaching. Poor support structures for students whilst in the clinical setting emerged as a barrier to their learning, and in the integration of theory and practice. This was attributed to the educational model used in the university which lacks clinical instructors or preceptors who not only supervise, teach and support students in the practice environment, but could also serve as role models who learners could look up to whilst being introduced into the profession, and could serve as links between the HEI and the health care organisation. Both groups were content with the relevance of what was taught in the classroom to the local clinical context, except for a small percentage of students. Although this study was unable to establish which pedagogic approaches were used in the university, it was established, however, that both learners and educators preferred student-centred learning approaches based on andragogic principles including the CSL.

Participants made suggestions as to how to improve theory and practice integration in nursing education, and the common idea that emerged was the establishment of a university hospital, or the university partnering with a health care institution where the value of clinical practicum for students could be enforced, rather than the *status quo* in the state-owned facilities, where students felt they were not adequately supported by staff. Additionally, a cadre of preceptors needs to be formed. These should not only train, support and supervise students, but could also serve as links between the practice setting and the university, thus keeping communication lines open and integrating theory with practice.

5.9 RECOMMENDATIONS

5.9.1 Education

From the findings of this study, it is recommended that the nursing department use process-based curricular approaches to teaching and learning which may enable students to be more reflective and more self-directed in their learning process. Furthermore, these methods are known for developing critical thinking abilities and enhancing lifelong learning skills, and can bridge the gap between theory and practice in nursing education. Students become more self-directed as they are allowed to be in charge of the learning process, learning how to learn. Furthermore, these approaches are believed to bridge the gap between theory and practice in the sense that the curriculum comprises real life situations which are common and relevant to the country's health care needs.

The CSL or demonstration laboratory should be more self-directed, with students learning how to conduct clinical skills with the guidance of a facilitator, but having the responsibility to practise by themselves in a well-controlled environment and acquiring skill competencies, so that actual practise on real patients would be much easier and more meaningful for them.

To advocate for the establishment of a cadre of preceptors who can also enhance the integration of theory and practice in nursing education. By working closely with the students in the clinical area, these would not only support and facilitate their learning of clinical skills whilst ensuring the safety of patients, but they would also become the link between the university and the clinical areas.

5.9.2 Future research

It is recommended that a large scale study examining the perceptions of the students, nurse educators as well as the clinicians in the entire country; focusing on all 3 nursing schools be undertaken.

A further study could investigate the education processes used to integrate theory and practice in nursing in the country.

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ANNEXURE 1A: STUDENT’S QUESTIONNAIRE

STUDY TOPIC: Perceptions of students and nurse educators on the integration of theory and practice in nursing education in Swaziland: an exploratory-descriptive study.

PART 1: DEMOGRAPHIC DATA

Please fill in the blanks and place an (X) next to the correct response.

1. GENDER FEMALE MALE
2. YOUR AGE IN YEARS: _____
3. PROGRAM: GENERAL NURSING YEAR.....
 POST-DIP. CERTIFICATE: PROGRAM.....
 Bachelors’ year.....
4. DO YOU HAVE ANY PREVIOUS TRAINING AS A NURSE ASSISTANT? YES NO
5. HAVE YOU EVER WORKED AS NURSE? YES NO

Part 2: Information on students’ perceptions about the integration of theory and practice.

Please rate your perceptions of theory-practice integration by placing an (X) next to the most appropriate response.

Key: 1 = Strongly agree 2 = Agree 3 = Not sure 4 = Disagree 5 = Strongly disagree

Items	1	2	3	4	5
Ways that facilitate theory-practice integration:					
Perception:					
1. It is easy for me to see the relevance of what I learn in class to the actual care of patients in the clinical area.					
2. In class, I am able to make reference to what I have experienced in the practice setting.					
3. In the practice setting, I am able to make reference to what I have learned in the					

classroom from the university.					
Items	1	2	3	4	5
Ways that facilitate theory-practice integration:					
Perception:					
4. I am able to correlate and apply what I have learned in class into clinical practice without difficulty.					
5. It is easy to realise that what we learn in theory is relevant and necessary for understanding and performing clinical practice.					
Curricular/pedagogic					
6. Our prescribed textbooks, literature, and class notes are able to demonstrate the link between theory and clinical practice					
7. The clinical skills lab/demonstration lab is necessary for the facilitation of clinical skills practise as they were taught or demonstrated.					
8. The lecturers are able to demonstrate and explain clinical skills in a way that is easy for me to understand and practice skills in the clinical area as I have been taught.					
9. After learning about the nursing care plan, I find it easy to apply what I have learned in class to actually practicing patient care.					
10. I am able to practice in the clinical setting as I would have learned in the class or skills laboratory.					
11. What is related in the class (theory) by educators is in line with what is practiced in the clinical setting (by nurses) and I can readily correlate this.					
12. Part of what I learn in class is irrelevant to clinical practice.					
13. The tests and exams are structured so that what I have learned and practised in the clinical setting is clearly integrated (e.g. scenarios).					
14. In the clinical setting, patients are managed as we are taught in class and ethical principles are upheld in practice.					
15. There is no confusion or conflict in what we have learnt in class with what we experience in practice.					
Supervision and support					
16. Clinical supervision and accompaniment is necessary for our clinical practice, to ensure that we are able to integrate what we have learned in class with actual clinical practice.					
17. The educators serve as role models for our clinical practice.					
18. The educators have good relations with the clinical staff in our practice settings enabling us to relate freely to either of them in case we need assistance and guidance.					
19. We get enough support from the clinical staff in the practice settings; hence we are able to integrate theory and practice.					
20. No one is mentoring us regarding how we can apply what we have learned in class to the actual practice in the clinical area.					
21. We need mentors/preceptors who will be trained as to how they can help us integrate what we have learned into practice.					
Barriers to the integration of theory-practice in nursing education:					
Resources:					
22. Equipment and supplies are available to enhance my clinical practice in the clinical area.					
23. Time allocated for theory and clinical practice is balanced, and enables us to practice what we have learned in theory.					
24. The lab is well-equipped to enhance my learning of clinical skills in relation to					

the theoretical knowledge acquired.					
Items	1	2	3	4	5
Barriers to the integration of theory-practice in nursing education:					
Resources:					
25. Shortages of staff in the clinical setting hinder our learning in the clinical setting, we are not supported enough to apply what we have learned in class in practice					
Curricular factors.					
26. Our prescribed textbooks, literature and class notes are relevant to our country's social and clinical context, and it is easy to relate subject content to the real situation.					
27. Clinical placements and theoretical sessions are sequenced, so that we are able to readily remember, understand and apply in practice what we have learned in the class.					
Communication, support					
28. Lecturers spend at least an hour/month with us in the clinical setting for supervision, ensuring the application of what we have learned is facilitated.					
29. We know exactly what is expected of us in the classroom, the expected outcomes are clearly stated in relation to clinical practice.					
30. Clinical practice outcomes are clearly defined and explained to us.					
31. Clinical practice outcomes are also explained to the clinical staff so they know what is expected of us in the clinical setting.					
32. In the clinical setting, there are clinicians whom we can always consult who liaise with the university regarding our clinical practice.					
33. The clinical staff has no power or control over our clinical practice or learning					
34. Clinical staff are acquainted with how and what we learn in the university.					
35. The clinical staff is willing and able to teach and guide students on clinical procedures and patient care, as guided by the expected outcomes.					
36. The university is also updated with what is happening in the clinical setting.					
37. Once in the clinical setting, educators don't have control over what we learn and/or practice.					
38. We do not have mentors in the clinical area who constantly liaise with the faculty regarding our learning.					
39. As students, we are responsible enough to attend clinical practicum as expected.					
40. We sometimes spend a lot more time travelling to and from clinical settings than actually practicing or learning.					

Part 3: Open-ended Questions.

Please fill in the blanks.

41. How many hours/weeks do you think are sufficient to optimise your learning at the demonstration lab in practicing clinical skills?.....

42. What do you think mostly hinders the integration of theory and practice in your learning?

43. What do you, as a nurse think should be done by the faculty to improve the integration of theory and practice in your learning?

.....
.....

44. What do you think you can do as nursing students to improve the integration of theory and practice in your learning process?

.....
.....

THANK YOU!!

ANNEXURE 1 B: LECTURER'S QUESTIONNAIRE

STUDY TOPIC: Perceptions of students and nurse educators on the integration of theory and practice in nursing education in Swaziland: an exploratory-descriptive study.

PART 1: DEMOGRAPHIC DATA

Please fill in the blanks and cross (**X**) on the correct response.

1. YOUR AGE IN YEARS _____
2. PROGRAM: GENERAL NURSING MIDWIFERY COMMUNITY HEALTH
NURSING
3. Working Experience as a lecturer (in years/months) _____
4. What is your highest qualification? PhD Masters Bachelors
5. How long have you practiced as a clinical nurse before becoming a lecturer?
6. Do you facilitate in clinical nursing education? Yes No

PART 2: Information on nurse educators' perception about the integration of theory and practice. Please rate your perceptions of theory-practice integration by **CROSSING (X)** on your most appropriate response.

Key: 1 = Strongly agree 2 = Agree 3 = Not sure 4 = Disagree 5 = Strongly disagree

Items	1	2	3	4	5
Theory-practice integration:					
1. Theory-practice integration refers to the nurse's ability to apply what s/he has learnt as empirical knowledge into clinical practice.					
2. Theory-practice integration also refers to theory, research and practice grouped together, each component informing the other.					
3. Nursing education has the major responsibility in ensuring that theory and practice are well integrated.					
4. Nurse educators have their role to play in theory-practice integration.					
5. Students also have a role to play in the integration of theory and practice.					
6. The clinical staff is equally responsible as the educators in ensuring that theory and practice are integrated.					

7. Clinical nursing education is a critical component in the integration of theory and practice					
Items	1	2	3	4	5
Theory-practice integration:					
8. The clinical environment is crucial in the integration of theory and practice.					
9. For theory and practice to be integrated, some teaching must occur in the clinical setting.					
10. Ethical knowledge is essential in the integration of theory and practice in nursing education.					
11. Personal knowledge, empirical, aesthetic and ethical knowing are fundamental to the integration of theory and practice in nursing education.					
Pedagogic:					
12. Our nursing programs at the faculty are structured such that what is taught in class is immediately practiced in the clinical setting (class contacts and clinical placements)					
13. In class, students are always encouraged to relate what they have experienced in the clinical setting and such issues are deliberated.					
14. I prefer to use case studies as a teaching approach to facilitate theory-practice integration.					
15. I use problems or short scenarios to facilitate the integration of theory and practice in nursing education.					
16. I use guided reflections that include practical experience and theory underpinning actions.					
17. I keep my knowledge up to date regarding health care and nursing issues so that as I teach, I am able to relate the subject matter to current practice.					
18. As educators the university expects us to keep ourselves up to date with the latest knowledge on areas of our specialization					
19. I use nursing research findings to support the subject content taught or discussed in class as way of integrating theory with practice					
20. I encourage students to use current research findings whenever they are doing their work as a way of integrating nursing science with the practice art of nursing.					
Clinical nursing education:					
21. As a lecturer, I am clinically competent to teach and/or facilitate clinical skills.					
22. I am confident about my clinical skills competency.					
23. My knowledge of clinical practice and skills is up-to-date.					
24. The clinical skills lab/ demonstration lab is an ideal setting for the students to practice clinical skills, integrating theory with the art of nursing.					
25. My nurse education training prepared me well for both clinical and classroom teaching.					
Assessment:					
26. I often use critical analysis of case studies and scenarios as a form of student assessment as a measure to integrate theoretical and practical knowledge.					
27. Clinical assessments/exams done in the practice setting on actual patients serve to integrate theory and practice.					
Supervision and support:					
28. I conduct clinical supervision as often as possible (as per SNC requirements).					
29. I spend at least an hour/month with each student in the clinical area.					
30. As lecturers, we regularly communicate with the clinical staff about what we are teaching at the university.					
Communication:					

31. As a department, we clearly define clinical outcomes for students at each level of study.					
Items	1	2	3	4	5
Communication:					
32. The clinical outcomes are clearly communicated to the clinical staff where students conduct their clinical practice.					
33. Students always know about what is expected of them in the clinical settings as well as in the classroom.					
34. The faculty plays a critical role in keeping clinical staff informed of the latest developments taught in class					
Barriers to the integration of theory and practice:					
Resources:					
35. The clinical skills lab is well equipped to enable students to practice clinical skills as taught/demonstrated.					
36. Teaching done by subject specialists without nursing knowledge enhances more understanding and application of that knowledge to clinical setting.					
37. Time is not available for me to go to the clinical area.					
Supervision and support.					
37. There is a person who serves as a link between the faculty and the different clinical settings.					
38. In the clinical area, the nursing staff is not always helpful and does not support students in conducting clinical skills that they have already learnt at the faculty.					
40. I spend more time travelling between clinical sites and that reduces the actual time I spend in the clinical setting with students.					
41. In the clinical area, I spend most of the time sorting clinical problems that students encounter than teaching or supervising.					
Clinical nursing education.					
42. I have no control over what is taught or practiced in the clinical setting.					
43. The clinical staff also teaches and guide students on procedures that they have not yet covered in class or skills lab.					
44. Clinical teaching is given low priority compared to classroom teaching					
45. I don't clearly understand my role in clinical nursing education.					
46. I am unsure of my role as an educator in the integration of theory and practice.					
47. Demonstration of clinical skills is not easy for students to such an extent that students do not find it easy to do a return demonstration with ease.					
48. I prefer the lecture method to any other pedagogical approach					

Please fill in the blanks.

49. According to the Swaziland Nursing Council, educators should spend at least.....hours per month supervising or accompanying students to the practice settings.

50. Last semester, I have spent at least.....hrs with students in the clinical area.

51. Do you think there is a gap between theory and practice in nursing education? (Y/N).

Very wide	
Wide	

52. If yes to question 51, how wide

Narrow	
Very narrow	

 is the gap? *Please choose the most appropriate by crossing (x) against your response.*

53. I mentor at leaststudents per year. *(Please insert number)*

54. I believe an educational philosophy is there to guide me as a lecturer? (Y/N)

Part 3: Open- ended questions:

55. My educational philosophy statement is.....
.....
.....
.....

56. What do you think are the barriers to the integration of theory and practice in nursing education?.....
.....
.....
.....

57. What do you think can be done to improve the integration of theory and practice in this institution?
.....
.....
.....
.....
.....

THANK YOU!!

ANNEXURE 2: INFORMATION SHEET

Date : 28 May 2010

Name of Research Student : Colile P. Dlamini
Address of student : Ezulwini- Swaziland
Student Number : 210545652
Contact Number : 0738922351

Name of Supervisor : Dr SZ Mthembu
Contact Number : 031-2602497
Name of Department : School of Nursing
Name of Institution : University of KwaZulu Natal (Howard College Campus)

Dear Participant

I am completing a research project as part of the requirements for Masters Degree (Nursing Education).

Title of the Research: perception of students and nurse educators on the integration of theory and practice in nursing education in Swaziland: an exploratory- descriptive study.

Purpose of the research: This study aims to explore and describe the perceptions of student nurses and nurse educators on the integration of theory and practice in nursing education in Swaziland.

Description of the Procedure:

Your participation is requested as you represent the population under study. As part of the research process, you are required to fill out a questionnaire. It will take you about 20 minutes to complete the questionnaire.

Ethical Aspects:

Please note that your identity and information will be treated with utmost confidentiality.

Please feel free to ask any questions you may have so that you are clear about what is expected of you.

Please note that:

- YOU ARE FREE TO *NOT* PARTICIPATE
- YOU ARE FREE TO WITHDRAW AT ANY STAGE WITHOUT REPERCUSSIONS
- YOUR NAME WILL NOT BE USED NOR WILL YOU BE IDENTIFIED WITH ANY COMMENT MADE WHEN THE DATA IS PUBLISHED
- THERE WILL BE NO RISKS ATTACHED TO YOUR PARTICIPATION.

Advantages to you as a respondent:

The findings of the study will be made available on completion.

Thank you.

Researcher: _____

ANNEXURE 3: DECLARATION

Researcher : Colile P. Dlamini
Student Number : 210545652
Cell number : 0738922351
E-mail : 210545652@ukzn.ac.za

DECLARATION

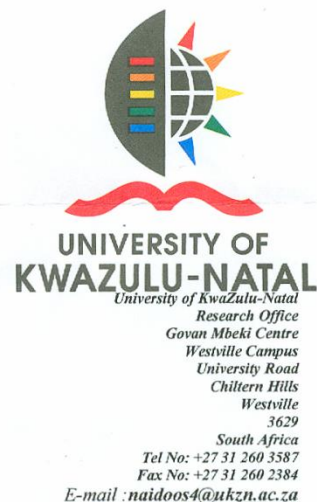
Title: Perceptions of students and nurse educators on the integration of theory and practice in nursing education in Swaziland: an exploratory descriptive study.

I(Full names of participant)
hereby confirm that I understand the contents of this document and the nature of the research project,
and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.

Signature of participant: _____

ANNEXURE 4: ETHICAL CLEARANCE



15 July 2010

Mrs C P Dlamini
P O Box 1464
Matsapa
SWAZILAND

Dear Mr Dlamini

PROTOCOL: Perception of students and nurse educators on the integration of theory and practice in nursing education in Swaziland: an exploratory descriptive study
ETHICAL APPROVAL NUMBER: HSS/0797/2010 : Faculty of Health Sciences

In response to your application dated 09 July 2010, Student Number: **210545652** the Humanities & Social Sciences Ethics Committee has considered the abovementioned application and the protocol has been given **FULL APPROVAL**.

PLEASE NOTE: Research data should be securely stored in the school/department for a period of 5 years.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Professor Steve Collings (Chair)
HUMANITIES & SOCIAL SCIENCES ETHICS COMMITTEE

SC/sn

cc: Ms S Mthembu (Supervisor)
cc: Prof N G Mtshali (Supervisor)
cc: Ms. T Khumalo

Telephone: Postal Address: Facsimile: Email: Website: www.ukzn.ac.za

Founding Campuses: Edgewood Howard College Medical School Pietermaritzburg Westville

ANNEXURE 5: LETTER OF REQUEST

University of KwaZulu Natal
School Of Nursing
Howard Campus
Durban
4041

29 July 2010

The Dean
University of Swaziland
Faculty of Health Sciences
P.O. Box 369
Mbabane

Dear Madam

Request for permission to conduct a study – perceptions of students and nurse educators on the integration of theory and practice in nursing education in Swaziland.

Reference is made with regard to the above mentioned subject matter. I am currently pursuing a Masters Degree in Nursing Education at the University of KwaZulu Natal. In partial fulfillment of the aforementioned degree, I intend to conduct an exploratory-descriptive study to determine the perceptions of students and nurse educators on the integration of theory and practice in nursing education in Swaziland. The proposed study setting is the University of Swaziland, Faculty of Health Sciences focusing on nursing students and nurse educators. Clearance from the Faculty of Health Sciences, Research Ethics Committee of the University of Kwazulu Natal has been attained.

Attached is a copy of the research proposal as well as the ethical clearance letter from the University of Kwazulu Natal.

Thanking you in advance for considering my request.

Yours Sincerely



Colile P. Dlamini

ANNEXURE 6: PERMISSION LETTER



UNIVERSITY OF SWAZILAND FACULTY OF HEALTH SCIENCES

P O BOX 369, Mbabane H100, Swaziland
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DEAN

Dr I.T. Zwane, SRN, SCM, Nazarene College of Nursing (Manzini, Swaziland); BSc Nursing (Howard University, Washington, DC); Master of Public Health (Boston University); PhD (Nursing) University of Maryland at Baltimore, USA.

10 August 2010

Mrs Colile P Dlamini
University of KwaZulu-Natal
School of Nursing
Howard campus
Durban 4041

Dear Madam

Re: Permission to conduct study at the University of Swaziland

In response to your letter dated 29 July 2010, I am pleased to inform you that you are granted permission to conduct your study on "perceptions of students and nurse educators on the integration of theory and practice in nursing education in Swaziland". I note with appreciation that you have full approval from the Research Ethics Committee of UKZN to conduct the study. I hope that the Faculty of Health Sciences will benefit from the study findings and thus improve nursing education in Swaziland.

Thank You


DR. I.T. ZWANE

