THE ROLE OF THE NURSE EDUCATOR IN SUPPORTING PUPIL NURSES

BY

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DECLARATION

I declare that THE ROLE OF THE NURSE EDUCATOR IN SUPPORTING PUPIL NURSES is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before for any other degree at any other institution.

…….. 21 February 2007
Idah Sihle Mkhwanazi DATE

DEDICATION

Benard, this is for you.

Also for Ziphokuhle, Mthokozisi, Ndukenhle, Sibonelo & Nokubonga.

Also dedicated to my grandmother: Elesia Zulu (uNdlunkulu ukaMasiphula)

Without your constant love, support and understanding this would not have been possible.

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Mkhwanazi family (eMabhuyeni) for their continuous support.

ABSTRACT

The aim of this study was to determine the role of the nurse educator in supporting pupil nurses.

A quantitative, descriptive survey design was used with a questionnaire as data collection instrument. The sample included pupil nurses following the two year programme for enrolment as a nurse at one of the sub-campuses in Kwa-Zulu Natal. The results revealed that support was offered in the classroom and in the clinical field, though some of the pupil nurses were not happy with the clinical allocations. It was revealed that they were sometimes used as part of the workforce.

There was a significant difference between means for the four aspects of support (classroom teaching, clinical teaching, assessment and motivation). The mean ranking for classroom and clinical teaching, were significantly higher than for assessment and motivation. Recommendations with reference to nursing education and further research regarding specific aspects of pupil nurse support were made.

Key concepts: support, nursing education, pupil nurse, nurse educator, competence, nursing school.

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CHAPTER 1

ORIENTATION TO THE STUDY

1.1. INTRODUCTION

There are three basic categories of nurses who are educated and trained in South Africa: the professional nurses, enrolled nurses and enrolled nursing auxiliaries (SANC 2005:1). The South African Nursing Council (SANC) has accredited both public and private nurse training providers. In KwaZulu Natal the basic training leading to registration as a professional nurse takes place in the campuses (nursing colleges) and the training leading to enrolment takes place on the sub campuses (nursing schools). The nursing school is the institution where training leading to enrolment as a nurse takes place. The nursing college on the other hand is the institution where basic nurse education and training takes place.

The scope of practice for the professional nurses (registered nurses) includes rendering comprehensive health care to the health care consumers, for the enrolled nurses it is rendering basic nursing care and for the enrolled nursing auxiliaries it is rendering elementary nursing care (Subedar 2005:8). These three categories of nurses are educated and trained in such a way that they are able to provide health care in different types of health care settings such as clinics, community health centres, district and regional hospitals. Mbongolwane sub-campus is one of the public providers of the course leading to enrolment as a nurse in KwaZulu Natal.

The growth trend over the last six years in the register and roll of nurses is of serious concern to the government as this growth is not keeping with the growth in the population of the same period.

There is also increased reliance of the health service on the profession of nursing due to the government's emphasis on primary health care provision and the Human Immuno deficiency Virus and Acquired Immuno Deficiency Syndrome prevalence rate (SANC 2005:1).

In this dissertation – the role of the nurse educator in supporting pupil nurses will be investigated. The target group will include the pupil nurses of Mbongolwane sub-campus. Pupil nurses are neophytes in the nursing profession. Pupil nurses undergo a two year training and education period to qualify, then to become enrolled nurses. Enrolled nurses form part of the nursing profession in the Republic of South Africa (RSA) and therefore have to be properly supported (Mellish, Brink & Paton 2000:60). The qualification for enrolled nursing is a two year certificate programme, which is a further education and training (FET) programme and the entry requirement for this programme is a Grade 10 pass (SANC 2005:5).

According to the new scope of practice, each category is an independent practitioner responsible and accountable for his/her own area of practice. An enrolled nurse can also be referred to as a staff nurse in this piece of legislation (Subedar 2005:8). The above mentioned category of a nurse has to meet the educational requirements and be competent to practice basic nursing independently, assume responsibility and accountability for such practice and is registered and licensed as a staff nurse in terms of the new Nursing Act (Subedar 2005:8). This calls for the support of pupil nurses by the nurse educators.

Pupil nurses are often overwhelmed by the responsibilities of being in a transitional period between childhood and adulthood. Having to deal with death and bereaved families and at the same time be faced with a heavy study load adds to the stress.

Clinical learning takes place in a complex and value laden environment where one must regularly make legal and ethical decisions (Lekhuleni 2002:19). According to Lekhuleni (2002:71), student nurses might perform poorly in the classroom and the clinical setting due to lack of support and trust from nurse educators and unit supervisors. Pupil nurses have to combine theory and practice simultaneously and therefore need support from the nurse educator so that they progress with their education and training.

According to Watson (1996) as cited by Birx (2002:87), the experience of being cared for enhances the individual's ability to be caring towards others. This implies that the students who are cared for during their training tend to be better caring practitioners and colleagues in the future.

According to Tlakula and Uys, (1993) and Gramling and Nugent, (1998) as cited by Moeti, van Niekerk and van Velden (2004:74), during their training, the nursing students are provided with theoretical content and in order to consolidate this knowledge they are placed in the clinical area. In this area they learn the art of nursing.

When first year pupil nurses start their studies, one could not describe them as adults. However, nursing practice demands total responsibility for patient care from them as early as during the first year of study (Klopper 2001:2). Upon realisation of the responsibilities associated with caring for the sick, pupil nurses lose their sense of security and may feel defenceless and helpless. According to regulation R 2598, 1984, Paragraph 5(r), pupil nurses have to care for dying patients and are exposed to recently deceased ones. For this reason they have to be supported in the clinical area. Special support programmes and services for students can increase the rate of academic success (Billings & Halstead 1992:3).

The purpose of this study is to investigate the role that is played by the nurse educators at Mbongolwane sub-campus in supporting pupil nurses that are undergoing education and training under their guidance in this sub-campus. These pupil nurses are trained in such a way that they are able to render basic nursing care in both public and private health care centres at different levels of health care.

1.2. BACKGROUND TO THE STUDY

Pupil nurses have to be supported and motivated. Motivation influences learning (Quinn 1998:72). If demotivated, pupil nurses may drop out of their studies. The Health Department or nursing profession would lose them in the profession during this crucial moment in the history of the Republic of South Africa (RSA) when the nurses are needed more than before.

According to SANC (2005:8), the training of enrolled nurses in public institutions in KwaZulu Natal is indicated in the table below.

TABLE1.1. Enrolled Nurses trained in KwaZulu Natal (Public Sector)

PROVINCE	1998	1999	2000	2001	2002	2003	Total
KwaZulu Natal	233	571	232	410	438	500	2384

According to SANC (2005:1), there has been a very small increase in the number of enrolled nurses in South Africa over a period of six years (from 1998-2003). More than half of the enrolled nurses that are trained enter into the bridging programme to become professional nurses thus grossly reducing the number of enrolled nurses in South Africa (SANC 2005:6).

In the course of their study, pupil nurses undergo classroom instructions and clinical exposure as prescribed in the regulation pertaining to the education and training of pupil nurses in RSA (Regulation R2175, 1993, paragraph 6(2&3)).

There are specific requirements that are set up by the SANC on the above areas of exposure. There are challenges that are associated with the entire programme of training. Nurse educators should be there every step of the way to help pupil nurses to overcome these challenges and to progress from a state of dependence on them (nurse educators) to a state of independence. Some of these challenges originate from clinical exposure. Pupil nurses have to face the reality of nursing in the clinical area. This reality includes caring for patients with communicable diseases and terminally ill patients.

The following questions arise:

Are pupil nurses ready to cope with the above challenges?

Will pupil nurses be able to render safe nursing care?

The nurse educator should always be there to guide and support pupil nurses. The curriculum for pupil nurses requires the development of each candidate in critical and analytic thinking. Without the support and guidance from nurse educators this does not take place effectively. Nurse educators should create a supportive environment and also play a supportive role in the education and training of the student nurses under their care (Reilly & Oermann 1992:118).

There should be mutual respect and admiration between the student and the teacher. A number of studies, however, indicated that in many relationships this is not the case. Both teachers and students have reported experiencing relationships characterised by tension and anxiety. This type of relationship results in failure and a frustrating experience in both clinical teaching and learning (Tang 2005:187).

Nursing instructors are responsible for ensuring that students learn how to apply theory, gain hands on experience , practice techniques and develop into mature people. For the patients to receive quality care, which is the responsibility of the nurse educators, pupil nurses have to be supported. Clinical nursing instructors should have professional competence, interpersonal relationship skills, certain personal characteristics and teaching ability (Tang 2005:187).

The KwaZulu Natal (KZN) Secretary for Health made a call to double the intake of student and pupil nurses in the year 2002 in order to meet the health needs of the province. A factor that influences the success and functioning of the health system is its human resources. According to Booyens(1996:24), the composition, training, education and dedication of an organisation's human resources are of vital importance in rendering comprehensive health care to the population. Pupil nurses are trained to form part of human resource component in the Department of Health. If they are not well supported, they may leave the profession and the Department will find itself in a crisis at this crucial time when nurses are needed most.

The study will to be conducted to help find ways to prevent the loss of pupil nurses. This study will attempt to bring more insight into the concept of *support*. Pupil nurses are partially employees and partially learners. This dual role needs support from their educators.

At times, pupil nurses find themselves feeling alone and alienated which results in high levels of frustration and stress (Reilly & Oermann 1992:147). Most of the student/pupil nurses start their training during their adolescence, at a time when they want to explore adult ways of behaving or satisfying their curiosity about life. They sometimes take on challenges and risks for which they are unprepared (Bezuidenhout 2004:68).

The person that plays a major role in the socialisation of pupil nurses is the nurse educator. If this person is not supportive, this can have a negative impact on career of a pupil nurse. The question has also arisen about what the roles are that are played by the nurse educators in supporting pupil nurses so that the pupil nurses are adequately prepared for nursing duties.

A library search indicated that no research has been carried out on the role played specifically by the nurse educator in supporting pupil nurses. Neither the Department of Health Studies at the University of South Africa (UNISA) nor any Department of Nursing Science at any University in the Republic of South Africa has yet undertaken such a study.

Knowledge of the learning styles and processes involved in nursing training are important in order to enable the nurse educator to support the students to reach their highest possible level of academic achievement (Van Rensburg 1995:3).

Shelton (2003) conducted research on faculty support and student retention. The aim of the study was to explore the relationship between student nurses` perceived faculty support and student nurse retention. The analysis of data revealed persistent group differences in perceived faculty support. Students who reported greater perceived faculty support were more likely to persist throughout the nursing programme where as students who reported little or no support withdrew either voluntarily or because of academic failure (Shelton 2003:75).

Macleod-Clark, Maben and Jones conducted a study on the perceptions of the philosophy and practice of nursing. The aims and objectives of the study included an examination of how student nurses` perceptions of the philosophy and practice of nursing changed during the Project 2000 course. The study reported student nurses` references to staff shortages and the difficulties they experienced when being managed by staff who knew little about nursing (Macleod-Clark, Maben & Jones 1997:167).

Birx (2002:86, 87) found that first year student nurses prefer a clinical learning environment with caring relationships. He states that positive relationships amongst students, nurse educators and ward staff can enhance student learning. Student nurses who experience caring during their training are better prepared to be caring practitioners in the future. In a study by Dunn and Burnett (1995) students identified specific attitudes in clinical nursing staff as very helpful to them, namely warmth, support in gaining access to learning experiences and a willingness to engage in a teaching relationship (Birx 2002:86).

Many nurses hypothesise that students who are not nurtured and encouraged to develop personally and professionally through appropriate support, are less able to support patients. Therefore patient care is compromised. The researcher saw it as necessary to conduct research of this nature to specifically look at the role that is played by the nurse educator in supporting pupil nurses. This study should also be conducted to ascertain whether there are shortcomings in this role.

1.3. STATEMENT OF THE PROBLEM

Nursing is a challenging profession and therefore it needs competent nurses. Nurses should be properly moulded and socialised into the profession. Pupil nurses are a group of trainees that are doing a course which will lead to their enrolment as a nurse as specified by the SANC regulation R2175 as amended (Regulation R2175, 1993). The Mbongolwane sub-campus is offering this course. This sub-campus is found in KwaZulu Natal. If the pupil nurses have to be motivated in the field of nursing, they need to be given all the support that they need.

The nurse educator is a pillar in the socialisation of pupil nurses into the nursing profession and therefore they should always be there to give direction and support to their learners. Harsh criticism should be avoided to help create a degree of trust between the nurse educator and pupil nurses. Criticisms should be constructive and not destructive (White & Ewan 1984:66). Adequately supported pupil nurses can become more productive and become motivated in the workplace. These people can meet the daily nursing care challenges more effectively. This study therefore addresses the following issue:
Are pupil nurses being supported adequately by nurse educators?

1.4. AIM OF THE STUDY

The aim of this research project is to investigate the role that is played by nurse educators in supporting the pupil nurses at Mbongolwane sub-campus in KwaZulu Natal so that they can be well socialised in the nursing profession. This will ensure that they are well equipped for their role of being learners and employees at the same time.

1.5. OBJECTIVES

The objectives of the study are to:
- determine the support needs of pupil nurses
- determine whether the support needs of Mbongolwane sub-campus pupil nurses are being met.

1.6. SIGNIFICANCE OF THE STUDY

The educator has an important function: to create a conducive learning environment for students and to play a supportive role to them in their studies (Reilly & Oermann 1992:118).

The question has arisen whether nurse educators are offering enough support to the pupil nurses so that these students are able to meet the demands of the community when they complete their education and training as enrolled nurses and are put into full- time service.

Quantitative research into the role of the nurse educators in supporting pupil nurses is important because:

- It will bring more insight into the nurse educator's role in supporting pupil nurses. If this support is found to be inadequate, recommendations will be made that may lead to finding ways to eliminate these shortcomings.

- problems and shortcomings noted during the research period could serve as a motivation to both nurse educators and pupil nurses and this in turn could improve examination results and patient care. If the problems and shortcomings are associated with the nursing education system at Mbongolwane sub- campus, this should be brought to the attention of the Human Resource Development directors and the review of the nursing education system could be undertaken.

According to Lekhuleni (2002:1), it is expected that nurse educators and unit supervisors accompany student nurses in clinical settings to provide them with guidance and support.

1.7. ASSUMPTIONS UNDERLYING THE STUDY

Assumptions are the basic principles that are believed to be true without proof or verification (Polit & Hungler1987:12).

The following assumptions are underlying this study:

- Effective support enhances pupil nurses` learning in the lecture room
- Effective support enhances pupil nurses` learning in the clinical area and promotes productivity in the workplace, therefore ensuring quality patient care.

1.8. METHODOLOGY AND TARGET GROUP

Written permission was requested from the Department of Health: KwaZulu Natal and from the Hospital Manager of Mbongolwane district-hospital. This was necessary because the study was carried out on the role that is played by the nurse educator in supporting the pupil nurses of the above hospital. The research methodology used in this study will be briefly outlined.

A quantitative approach using a descriptive survey methodology will be used to conduct the study. A questionnaire will be developed for data collection.

1.9. ANALYSIS OF THE DATA

Data analysis will be done as follows:

- The numerical data will be statistically coded and analysed
- Data analysis will be done with the help the Statistics Department at the University of KwaZulu Natal in Durban.

1.10 DEFINITION OF TERMS

A concept can be interpreted differently by different individuals or disciplines. To enable the reader and the researcher to share the same understanding of the concepts used, the common concepts used in this study will be defined in this section.

SUPPORT

- Hamachek (1995: 564) views support *as creating a climate with open communication that is one of acceptance and is non – judgemental.*

- Stanhope and Lancaster (1992:684) define *support as...upholding a person's right to make a choice and to act on the choice.*

For the purpose of this study *support* will be defined as being available to the individuals and helping them to identify and manage the challenges of the situation while moving from the lowest to the highest levels of nursing education and training.

Emotional support includes talking to a person and helping that person understand and adapt to a situation or challenge.

NURSING EDUCATION

- Brink and Mellish (1986:6) view nursing education *as a method by which nursing students are guided, assisted and provided with means which enable them to learn the art and science of nursing so that they can apply it to nursing of people in need of such care.*

For this study *nursing education* will be defined as leading student and pupil nurses from the state of not knowing to the state of knowing and also from the state of being fully dependent to the one of being partially dependent or independent in the nursing profession.

OUTCOMES/OBJECTIVES

Outcome

An outcome is a statement of a skill or set of behaviours which a learner should be able to demonstrate at the end of a learning experience (Jacobs, Vakalisa and Gawe 2004:89).

Objective

A statement describing the changes in behaviour that constitute learning (Quinn 2000:138). Both outcomes and objectives refer to the desired end results of learning. They are formulated to indicate measurable cognitive, affective and/or psychomotor skills that learners have to achieve. In this dissertation outcomes and objectives will be used interchangeably as the SANC documents refer to "objectives" while higher education institutions refer to "outcomes."

PUPIL NURSE

In this study the term *pupil nurse* refers *to a person who is doing a course leading to enrolment as a nurse in any nursing education institution in the RSA* according to the SANC regulation R2175 of 1993 (as amended).

NURSING SCHOOL

This is a nurse training institution where a course leading to enrolment as a nurse and/ or a nurse auxiliary is pursued in the RSA. A bridging programme from the Enrolled Nurse to Registered Nurse is also pursued in this type of nurse training institution. This is also referred to as a sub-campus in KwaZulu Natal. In this research study the concept sub-campus will be used.

NURSE EDUCATOR

Durrheim (1995:13) defines the *nurse educator as a person who has completed a course in nursing education in a department of nursing science at any university in the RSA and who is registered as a tutor with SANC as prescribed by R118.*

COMPETENCE

- Reilly and Oermann (1992:226) view *competence as the ability to plan in a conscious way considering a projected future situation.*

- Mamphela (2000:21) defines *competence as the ability to put into practice in the relevant context, the learning outcomes acquired in obtaining a qualification.*

- According to Hamachek (1995:41) *competence refers to an outgrowth of what one feels after the successful completion of a task or a course of study.*

- Gurvis *and* Grey (1995:248) quoted by Durrheim (1995:12) define *competence as a nurse's capacity to perform his or her job functions, whether in fact they have the knowledge, skills, behaviour and personal characteristics necessary to function well in a given situation.*

- C*ompetence is the application of knowledge, skills and values in a specific context to a defined standard of performance(* Isaacs 2000:16*)*.

1.11. THEORETICAL FRAMEWORK

Dorothea E. Orem's theory of self care will be used as a point of departure for this study. This theory relates to the educator-student relationship where the student is completely dependent on the educators when she/he commences training and gradually becomes independent as she/he progresses with her /his studies. A theory is a set of concepts or terms with the purpose to explain.

The main responsibility of the nurse educators is to support pupil nurses as they move from the state of dependence towards the one of independence in nursing education and training. According to Polit and Hungler (1999:80), a broad conceptual context should be developed into which a research problem will fit. This will be done in this research study.

1.12. ORGANISATION OF THE RESEARCH REPORT

The report of this study is organised as follows:

Chapter 1 presents an overview of the study, the background to the problem , motivation for the study and the statement of the problem. The aim and objectives as well as the importance of the study are briefly outlined. The target population and the definition of concepts are given.

Chapter 2 encompasses a review of the literature. The reasons for the Literature review is given. The concept of *support* is explicated and Orem`s theory is discussed as the theoretical framework for the study. The SANC regulations pertaining to the course of study leading to Enrolment as a nurse is given and previous research studies relating to The support of student nurses is discussed.

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Chapter 3 offers a description of the research methodology. The aspects that are described include the construction of the research instrument, the period of the research, the research approach, the size and choice of population as well as ethical considerations. Pre- testing of the research instrument is described as well as the collection of data.

Chapter 4 presents the data analysis and interpretation of the results.

Chapter 5 provides the findings, limitations of the study, recommendations (for nursing education and for further research) and the conclusion.

CHAPTER 2

LITERATURE REVIEW

2.1. INTRODUCTION

This literature review explores available literature on the concept of support and related aspects in the nursing education context. Orem's self-care model will be used as the theoretical framework for this study. The South African Nursing Council's (SANC) regulation relating to the programme leading to enrolment as a nurse no. R2175 of 1993 as amended is also described. Problems encountered by student /pupil nurses during their training are described.

According to Polit and Hungler (2004:88), the purpose of a literature review is to familiarise oneself with the existing knowledge base in order to orientate oneself with what is known or not known about an area of inquiry. In this way gaps or inconsistencies can be determined, suitable designs and data collection methods can be identified, the need to replicate a prior study can be detected, research problems can be identified and research question refined.

When research is conducted, a broad conceptual context is developed into which the research topic will fit. If the research is linked to the other studies, this will help join together with other information previously obtained. In this study the following sources were consulted during the literature review: books, journal articles, South African Nursing Council rules and regulations, dissertations/ thesis, papers presented and the internet.

The literature review was conducted to establish whether any previous studies have been conducted on the role of nurse educators in supporting pupil nurses, to identify the shortfalls, if any, and make recommendations on how these can be overcome.

From the literature search, no research on the role played by nurse educators in supporting pupil nurses from the Department of Health Studies at the university of South Africa or any department of Nursing Science in KwaZulu Natal could be retrieved. A number of studies have, however, focused on student nurse (four year diploma programme) support and on other aspects related to support, such as the accompaniment of student nurses.

2.2. OREM`S SELF CARE CONCEPT

Pupil nurses have to be supported as they move from a state of dependence to one of independence in the educational setting. Orem describes the nurses` role as assisting the person who has inabilities in the area of self-care. Orem`s concept was categorised as a systems theory (Stanhope and Lancaster 1992:136). However, according to Fawcett (1989), as cited by Stanhope and Lancaster (1992:136), it can more appropriately be classified as a developmental model since it looks at the development of people from the lowest to higher levels.

Nursing involves helping other people to obtain optimal health and be self-sufficient in their own health care (Orem 1995:6). The care for a person includes doing the task for him, helping him to do tasks for himself and helping him to learn how to do tasks for himself. Pupil nurses are people completing a course which leads to their enrolment as a nurse, and are therefore in the process of development from the state of dependence to the one of independence.

Nurse educators and pupil nurses are involved in a teaching/learning relationship. The nurse educators help pupil nurses to learn. Helping involves doing for another, guiding and directing, providing physical or psychological support, providing and maintaining an environment that supports personal care and teaching (Orem 1995:15). In the process of development, the pupil nurses move from dependence to independence.

As they move, along the way they need support. Nursing education also focuses on patient education. Pupil nurses are taught to help patients/clients to become as independent as possible and to take responsibility for their own health care.

2.2.1. Important terms used in Orem's model

Orem's model evolves from the way she conceptualises nursing, especially from her perception that nursing is concerned with self-care. Important terms used in this model are: self-care, self-care agency, therapeutic self-care demand and self-care deficit.

2.2.1.1. Self-care

Self-care is the core of Orem's model. Self-care consists of those activities that an individual does for him to maintain life, health and well being. It also includes the actions of a person who is matured or who is in the process of maturing and has the capabilities to be engaged in self-care (Orem 1995:103). Self-care will only be possible if the individual has the strength, will or knowledge to render this care.

2.2.1.2. Self-care Agency

Self-care agency refers to the person who provides self-care. Orem (1995:104) defines the self-care agent as the provider of self-care. Adults are able to provide self-care whereas children, the very ill, the aged and the handicapped are often unable to provide self-care.

2.2.1.3. Dependent self-care agency

This is the provider of care in instances where self-care cannot be provided. The very ill, children, the aged and handicapped to a certain extent depend on others for care because of their limitations.

2.2.1.4. Therapeutic self-care demand

This is the specification of the nature and quantity of care measures that are known to be regulatory of individuals' human functioning and development within a certain time frame (Orem 1995:187). Therapeutic self-care demand is based on the theory that self-care is a human regulatory function. Basic condition factors is a set of factors that are associated with variations in the self-care requisites.

2.2.2. Self-care requirements

Orem's goal of nursing is to meet the client's self-care demand until the relatives are capable of doing so. Self-care requirements are categorised into three types: universal self-care, developmental self-care and health deviation. During this study Orem's self-care refers to the educational and emotional support given by the nurse educator.

2.2.2.1. Universal self-care

Universal self-care is based on the assumption that human beings have common needs for the intake of certain material and also for bringing about, and maintaining living conditions that support life processes. These needs are common to all human beings throughout the stages of life. Universal self-care aims to meet these psychological and physiological needs.

According to Orem (1995:191), universal self-care requisites include the following:

- The maintenance of sufficient intake of air
- The maintenance of sufficient intake of water
- The maintenance of balance between solitude and social Interaction
- The maintenance of balance between rest and activity
- The prevention of hazards to human life and
- the promotion of functioning and development within social groups.

2.2.2.2. Developmental self-care and health deviation

Developmental self-care is the type of care that is required when an individual goes through developmental stages. This is based on the notion that human development requires the formation and maintenance of conditions that promote developmental processes (Orem 1995:108). A human being is a physical, psychological and social being (Vlok 2000:15). This person should be provided with the conditions that promote their development (Orem 1995:197).

The factors which influence human development include the conditions and events that occur during various stages of the life cycle (Orem 1995:109). The nurse educators should strive to provide an environment conducive to the development of the pupil nurses at the Mbongolwane sub-campus.

An individual has to be actively engaged in self-development (Orem 1995:198). There are certain events and conditions that adversely affect human development at the various stages of a life cycle (Orem 1995:199). As the pupil nurses develop, they might be disturbed by factors such as ill health, stress, a family crisis and peer-group influence.

2.2.3. Approaches to meet the client's self-care needs

Different approaches which are used to meet the client's self-care needs are discussed by Orem. Nursing systems describe the actions of both patient and nurse when the patient has psychological and physical limitations. The patient has self-care requisites and has to limit the energy expenditures because of poor health states. The pupil nurse lacks the knowledge and skills of a qualified enrolled nurse. Therefore the nurse educator's role is to guide, support and teach pupils to enable them to become independent practising nurses. The patient also lacks knowledge and skills and/or is not psychologically ready to perform self-care actions. The basic variations of the nursing system include a wholly compensatory nursing system, a partly compensatory nursing system and a supportive educative nursing system. To implement such nursing systems, the nurse does one of the following, namely:

- acting or doing for the patient
- guiding the patient
- supporting the patient
- providing and teaching the patient (Orem 1995:308).

The nurse educator demonstrates the procedures in the clinical area and also searches for information and gives it to the neophytes when they commence their education and training. As the pupil nurses progress with their studies, the nurse educator provides guidance and support. The nurse educator also teaches the pupil nurse how to go about searching for information.

2.2.3.1 Wholly Compensatory Phase

In this phase the patient plays no active role and depends entirely on a nurse. This could be because the patient is still young, or unconscious, or has limitations imposed by his/her psychological/physical state of health.

The patient may also lack knowledge and may therefore require constant guidance and direct supervision (Orem 1995:308, Stanhope & Lancaster 1992:136). In this phase there is complete dependence on the nurse. This person has to be moved or assisted towards a state of independence.

The wholly compensatory phase is applicable when a pupil nurse begins her/his training as a neophyte in nursing. She/he is completely dependent on the nurse educator and practitioner for guidance.

2.2.3.2 Partly Compensatory Phase

In this system both the patient and the nurse have an active role to play in the performance of some tasks. This will depend on a number or factors such as the patient's limitations, skills required to perform tasks, psychological readiness and the like (Orem 1995:310, Stanhope & Lancaster1992:136).

Relevant to this study, nurse educators and pupil nurses both have an active role to play in the teaching/learning process. During the education and training of pupil nurses at Mbongolwane sub-campus, the aim is to move pupil nurses as soon as possible from this level and to one of complete readiness for taking responsibility for their own learning as discussed in 2.2.3.3.

2.2.3.3. Supportive Educative Phase

This is a nursing phase where a patient should and can be rendering self-care but cannot do it without educational assistance. Relevant to this study, the nurse educators provide the pupil nurses with the skills of independent learning in order to progress from the state of dependence to the one of independence.

2.2.4. Reasons for choosing Orem's theory and the application thereof to pupil nurse support

Orem`s theory can be applied to the education and training of pupil nurses at Mbongolwane sub-campus. Nurse educators at the above sub campus should strive to help their pupil nurses to become independent learners who are capable of taking responsibility for their own learning. According to Fawcett (1989) as cited by Stanhope and Lancaster (1992:136), Orem's theory is classified as a developmental model. A pupil nurse is a person who is in the process of development. The learner develops from the state of dependence to the one of independence.

The structure of Orem's model focuses on the client as a learner and the nurse as a teacher. The learner moves along the *maturity continuum* from dependence to independence in self-care. The teacher has to offer support and guidance along the way.

The current trend of the teaching/learning relationship promotes self-directedness and active leaner participation. The aim of teaching is to promote independence as much as possible.

In this study the client can be viewed as the pupil nurse and the nurse can be viewed as the nurse educator. When the pupil nurses commence training they have limitations and therefore depend entirely on the nurse educators for guidance and support along the maturity continuum (from a state of dependence to the one of independence).

Pupil nurses have to be developed professionally and personally and the nurse educators at Mbongolwane sub-campus have the responsibility to be actively involved in the professional development of those in their care. The maturity process of the pupil nurses is facilitated by the nurse educators.

In the teaching/learning situation the nurse educators act as facilitators. Hill and Howlett (1993), as cited by Muniski (1999:25), stated that students should become self-directed and must accept the fact that the instructor will provide guidance each step of the way.

As pupil nurses commence training they rely completely on nurse educators. It is thus the task of nurse educators to move them the next level of dependency as described in level 2.2.3.2.

Orem's theory thus serves to define the support of pupil nurses by nurse educators. Inexperienced pupil nurses can be viewed as having educational self-care deficits and might need nurse educators to provide support during their education and training. These pupil nurses can also be viewed as dependent on nurse educators for providing assistance towards independence and professional maturity. Nurse educators should assist pupil nurses by demonstrating clinical skills, guiding and directing, providing physical and psychological support and creating an environment that supports personal and professional development.

2.3. THE CONCEPT *SUPPORT* AND THE RELATED ASPECTS

Various definitions of the concept of support are explored and a distinction is made between classroom and clinical support as the emphasis shifts slightly between these two learning environments. Related aspects to support as identified from the literature include facilitation of learning, supervision and mentoring, motivation and assessment. These are relevant to both the classroom and clinical environments. The clinical environment refers to hospital wards and clinics where pupil nurses have to learn the practice of nursing.

2.3.1. Definitions of Support

The concept of support has been defined differently by various authors. Hamachek (1995:564) views *support* as *creating a climate with open communication, acceptance and being non-judgmental*.
According to Mellish et al. (2000:76) s*upport* also includes being *there for a person availing you when needed.* Support therefore includes being available to the other, accepting the other and being non-judgemental and open to communication.

The Concise Oxford Dictionary (1992:12266) defines *support* as *keeping away from falling or sinking or failing, carry all or part of the weight and provide with the necessities of life.* To *support* a person therefore means to *sustain in an effort and by so doing prevent a person from failing or save him from unpleasant situations or decisions.*

Support is also viewed as *providing another person with material resources as closely related to the giving of physical and psychological support* (Orem 1995:17).

Stanhope and Lancaster (1992: 684) define *support* as *upholding a person's right to make a choice and to act on the choice*. If the pupils/ learners are supported by their teachers, the nurse educators, they in turn will learn to recognise the needs of, and give support to their patients (White & Ewan 1991:123).

According to White and Ewan (1991:126), types of support include *emotional support, appraisal support, information support and instrumental support.*

Emotional *support* can be demonstrated by the nurse educator through listening to their pupil nurses whereas giving affirmation and feedback to pupil nurses are ways of *appraisal support. Information* support can be offered through giving advice and assistance, and *instrumental suppor*t is offered through the availability *of resources* (White & Ewan1991:126).

*Suppor*t also includes being *available when needed.* The teacher is an additional resource to be called upon by the learners as and when required. Nurse educators do not direct the learners` studies but they should be there when needed (Rolfe 2001:95).

Supporting pupil nurses includes the setting *of a psychological climate conducive to learning*. Much of the success or failure of the learning experiences depend on the qualities or attitudes that the educators display as people and on the relationships that they have with their learners (Rolfe 2001:95).

Support of pupil nurses includes *the facilitation of learning by the nurse educators*. This is done through providing the learners with the outcomes or jointly developing objectives and allowing them to look for relevant information. Nurse educators should provide the pupil nurses with an environment conducive to learning and be there for guidance and support when the pupil nurses encounter a problem. Olivier (2002:135) states that the role of a facilitator starts before facilitation. A good facilitator starts by preparation for facilitation. The facilitator should prepare the environment where facilitation will take place and make a diagnostic assessment of the target group to which facilitation of learning will be done.

2.3.2. Support in the classroom

Research indicates that the physical and psychological (emotional) environment in the classroom as well as in the clinical area significantly affect student nurses' learning responses (Slavin 1995:172).

Psychological learning climate:
Nurse educators interact with pupil nurses in the classroom as well as in the clinical area. A *psychological learning* climate in the class room can make a big difference to how the students perform academically and how they adjust socially within a nursing school environment. An emotionally pleasant and intellectually stimulating classroom climate and good interpersonal relations facilitate current learning and foster positive attitudes towards future learning (Hamachek 1995:546). A positive emotional climate is the one that involves many opportunities for student participation and involvement (Hamachek 1995:548). A positive emotional climate hastens the process of moving from dependence to independence.

Several other studies, including those done by Brown (1981), Stephenson (1984), Dawson (1986), Windsor (1987), Marriot 1991) all cited in Forrest, Brown and Pollock (1996:1261), suggest that the nurse educator's interpersonal effectiveness is the trait most consistently rated by students as being most important.

Darling (1984) in Fowler (1996:473) refers to a relationship involving emotional investment and ties as one of three mentoring roles of the nurse educator. Tang, Chou and Chiang (2005:191) affirm that it is the nurse educator's attitude rather than his/her professional ability, which is the crucial factor in determining his/her effectiveness as a teacher.

The nature of human relationships has a great influence on human development and a positive nurse educator-pupil relationship will enhance learning. According to Orem (1995:109), factors which influence human development include the conditions and events that occur during various stages of the life cycle.

Physical learning climate:

A positive *physical* climate in the lecture room is important to promote learning. This can be done through ensuring proper ventilation so that the learners do not feel sleepy, ensuring that there is adequate light, and that the classroom is free from noise. Other aspects that should be taken into consideration when assessing the lecture room climate include the physical distance between the educator and the learner and sufficient space for easy movement of learners and educator. Comfortable seating arrangements should be provided and attention should be given to esthetical aspects such as colourful posters on the walls (Billings & Halstead 1992:128; Slavin 1995:173). According to Maslow`s hierarchy of needs, the basic needs (here referring to comfort and shelter) are necessary before the individual can proceed to higher needs (e.g. learning).

According to Klopper (2001:4), the assumption regarding the teaching role of the educator is to create a context conducive to learning. Excellent teaching has been associated with five characteristics: enthusiasm, clarity, preparation/organisation, a stimulating lecture style and a love of knowledge (Sherman et al. (1987) in Fowler (1996:474)). Forrest et al. (1996:1261) affirm this by their reference to the need for nurse educators to have expertise in their subject as well as the ability to practically apply their experience and add that if tutors cannot do this, their capabilities as educators will be limited.

2.3.3. Support in the clinical area

When most of the pupil nurses commence their basic training, they do not have any experience of nursing. In the study conducted by Shin (2000:261), one of the students who was faced with the reality shock of clinical exposure admitted that " The first week was difficult and busy. Because I was under so much stress, my hand, holding a patient's hand, trembled more than his hand, and I could feel my pulse beating loudly". It is for this reason that the nurse educators` role be investigated in supporting the pupil nurses.

Institutions involved in educating nurses have to emphasise that the prime role of the nurse teacher in the clinical area is to meet the needs of the students (Forrest et al 1996:1263). According to Shin (2000:259), six goals of learning in a clinical setting from nursing students` perspectives include: to do no harm to a patient; to help patients; to integrate theory- based knowledge into clinical practice; to learn clinical practice skills; to look good as a student and to look good as a nurse. Mc Cabe as cited by Forrest et al. (1996:1258), describes clinical learning as the "heart" of professional practice. Fair brother and Ford (1998), cited by Landers (2000:1554), suggest that the nurse educator, having taught a particular nursing skill in the classroom, would then support the student to apply the skill safely and correctly in the clinical area, thus enabling theory and practice to be integrated.

The SANC programme outline of the course leading to enrolment as a nurse includes clinical teaching. One of the conditions for enrolment as a nurse is that the nursing school where training was given should have submitted to the SANC the satisfactory record of the pupil nurse's theoretical and clinical training (Regulation R2175,1993, paragraph 2(1) (a - e) as amended). Clinical teaching is therefore an essential part of pupil nurses` education and training. This calls for adequate support of pupil nurses in the clinical area. It is in the clinical area that pupils learn the art of nursing which is the core of nursing.

The theory that the pupil nurses receive in the classroom should be correlated with the clinical practice. Active accompaniment of pupils in the clinical area and purposive structuring of assignments will enhance theory-practice integration which is necessary for the development of the required skills to provide safe and sufficient patient care (Moeti, van Niekerk & van Velden 2004:74). According to Household (1993), as cited by Fichardt (1997:7), the main roles of nurse educators include to guide the students through the clinical reasoning process and make them focus on the clinical problem.

Pupil nurses are educated and trained with the aim of preparing them to provide safe nursing care in the clinical area. It is for this reason that pupil nurses should be properly supported in this area. This support could be in the form of facilitation of learning , supervision and counselling. Jowett et al. (1992) in Fowler (1996:473), emphasise the nurse educator's role as supervisor, with them being seen as a resource for the student with regard to information, advice and counselling.

Findings from the study in Project 2000 conducted by Forrest, Brown & Pollock (1996) emphasised the central position of the student nurse, as an adult learner in the learning process. The findings from this study suggested that for students to perceive contact with nurse teachers in the clinical area as beneficial, this contact must be negotiated with the student so that it meets their perceived learning needs (Forrest et al. 1996:1263). According to Mashaba and Brink (1994), as cited by Lekhuleni (2002:16), facilitators do not intervene or act on behalf of the learners, but make it easier for them to participate in complicated events in the clinical setting. Nurse educators, as facilitators, have to anticipate, assist, reassure and encourage pupil nurses in a clinical area. As the nurse educators accompany the pupil nurses, they have to create a teaching climate and also act supportively (Klopper 2001:6).

Phillips (1994:216) conducted a study on providing student support systems in Project 2000 nurse education programmes and on the personal tutor role of nurse educators. Project 2000 presented an opportunity for curriculum planning teams at the South East Wales College of Nursing and Midwifery Education, to formally address the issue of supporting students. In this study Phillips asserted that providing support for students has always been an inherent if not formally described part of a nurse educator's role. This study discusses the concept of the personal tutor and also examines a combination of a personal tutor system and a mentorship scheme can result in the production of autonomous and confident practitioners.

Hydes-Greenwood, Nellestein and Leach (2002:28) conducted research on return to practice. This research investigated the return to practice programme for nurses that had dropped out of the training at the Royal Liverpool University Hospital and had a break. It also looked at various forms of student support in this programme which included a family friendly course design, support systems and individually trained assessors in the workplace to support students. A case study was conducted on an enrolled nurse who had had a break during her training and examined her experience during that break and how she returned to nursing. On her return she felt valued and supported because of the programme.

Tang et al. (2005:188,190) did a study to determine the characteristics displayed by effective versus ineffective clinical tutors. The sample included 235 students. Their findings indicated that to be effective, clinical tutors had to demonstrate professional competence, good interpersonal relationships, certain personality traits and a strong teaching ability. However, the largest difference between effective and ineffective clinical tutors was in the interrelationship category, particularly with reference to *treating students sincerely and objectively.* This explicitly implies the need for caring characteristics in the effective nurse educator.

According to Forrest et al. (1996:1262), the nurse educator's role in the clinical area must be diverse and flexible but whatever role they adopt, it must meet the needs of both their students and clients.

The nurse educator should plan clinical teaching, avail her/himself in the clinical area and support pupil nurses every step of the way for them (pupil nurses) to acquire the skills needed in this area. The pupil nurses` experiences in the clinical area can cause fear, stress, frustration and anxiety and it is for this reason that the nurse educator be there to allay anxiety, provide guidance and move with him/her until she/he gains professional maturity. As the nurse educator provides guidance she/he continuously evaluates the expertise acquired on the way and the level of dependence of the pupil in order to be able to leave them alone when the situation permits.

2.3.4. Facilitation of learning

In a study conducted by Chabeli (1999) in the RSA, as cited by Lekhuleni (2002:16), facilitation is defined as *a goal- directed and dynamic process*. Nurse educators should provide encouragement when situations become difficult for the students and should be friendly to make communication easy. As the learners progress through their education and training, the roles of the facilitators should change from being motivators and catalysts for ideas to being constructive critics and evaluators (Lekhuleni 2002:17). Pupil nurses have to be actively involved in the learning/teaching process and should be motivated to ask questions in the classroom where necessary.

For facilitation to be successful, a supportive, nurturing, understanding and challenging environment is necessary (White & Ewan 1991:112). Nurse educators must be sensitive to the needs of the pupil nurses.

Nurse educators must engage the learners in the decision-making process and encourage them to assume responsibility for their own learning. This early assumption of responsibility enables them to work independently in the clinical setting.

A good facilitator bears the following attributes:

- Warmth, openness and honesty
- Respect for learners
- Dedication, sincerity, enthusiasm and optimism
- Knowledge about the course and programme requirements for the learners

(Quinn 1995:2005, Muniski 1999:29 and Lekhuleni 2002:16).

Fischer, Boshoff and Ehlers (2001:66) conducted a research study titled Student *nurses' needs for developing basic* study *skills*. Their research aimed to find answers to the questions whether student nurses require guidance regarding the development of specifically identified study skills. On completion of this study it became evident that students needed more guidance regarding the development of basic study skills and that the existing study support programmes did not address all their needs adequately.

In his research, Muniski (1999:24) stated that one of the purposes of education is to help learners become independent. Most of pupil nurses are teenagers but some are adults. Anxiety created by returning to school to further one's education and training, can cause an adult to regress into childhood behaviour with corresponding emotional responses. Nurse educators are facilitators, and effective facilitators encourage the development of positive attitudes while providing support (Muniski 1999:29).

Support involves the facilitation of learning and mentorship. Lekhuleni (2002:16) stated that facilitators do not intervene or act on behalf of the learner; they merely make it easier for the learner to participate in complicated events in the clinical settings.

Lekhuleni (2002:33) also identified similarities between student nurses` expectations and the role of facilitators, mentors, role models, nurse educators and unit supervisors during their accompaniment of student nurses in clinical settings. Among these similarities are the provision of support and encouragement to student nurses in the clinical setting. The learners should be assisted from dependence to independence through guidance and support (Lekhuleni 2002:33). Forrest et al. (1996:1260) suggest that the clinical role of the nurse educator should be that of a facilitator and supporter rather than that of a clinical practitioner.

The outcome of facilitation includes the promotion of self-directedness and it also hastens the process of moving from dependence to independence. The current trend of the teaching/learning process is problem-based learning (PBL) which includes reasoning through the problem, applying new knowledge to the problem as well as summarising, synthesising and evaluating. By these actions, the pupil learns how to integrate learning. (Fichardt 1997:9).

Mbongolwane sub-campus has adopted PBL as an approach to the teaching/learning situation. The nurse educators of this sub-campus are moving towards acquiring facilitation skills and using these skills for educational support to the pupil nurses.

The facilitation of learning involves using a variety of teaching strategies in order to accommodate the different learning styles of pupils. A vast number of teaching methods can be used in the classroom. One of these methods is small group discussion. In this method the facilitator should encourage participation, provide appropriate information and refrain from giving harsh feedback.

Ramsden (1992) as cited by Klopper (2001:3), states that learning should be about changing the ways in which the learners understand or experience the world around them. This world includes concepts and methods.

It is vital that the pupil nurses know and understand concepts in order to be able to apply them in the clinical area. The nurse educators should therefore patiently instil relevant concepts in the pupil nurses in the classroom and also use different methods for their instillation. A clear understanding of concepts will be demonstrated in the clinical area where nursing actually takes place. Nurse educators of Mbongolwane sub-campus use group discussions, the lecture method, lecture discussions, demonstrations, assignments, case studies and other methods for the education and training of pupil nurses.

According to Moeti et al. (2004:83), quality care of patients cannot be ensured through nursing skill alone without the application of theory. A crossover from theory to practice therefore remains an essential component of nursing education. These authors emphasise the importance of the facilitation of effective learning which enables student nurses to practice the art of nursing.

For the nurse educators of Mbongolwane sub-campus to be effective and efficient in their education and training of pupil nurses, they have to be willing to teach, have motivational skills, advice-seeking skills, self-organising skills, and idea-generating skills. These educators also have to be assertive, loyal and quality-oriented with a basic understanding of psychology as a discipline to enable them to establish and maintain positive interpersonal relationships with pupil nurses.

2.3.5 Supervision and Mentoring

Support in the classroom and clinical area includes the supervision and mentoring of the learners. Learning is moving from the world of not knowing to the world of knowing. Pupil nurses go through developmental stages as they progress with their education and training.

According to Orem (1995:108), human development requires the formation and maintenance of conditions that promote developmental processes. Supervision and mentoring are conditions which promote the development of the pupil nurse.

Supervision:

The English National Board of Nursing Midwifery and Health Visiting (1993), as cited by Quinn (1998:187) defines a supervisor as ... *an appropriately qualified and experienced first level nurse who has received preparation for ensuring that relevant experience in providing for the learners to enable learning experience to be achieved*. The supervisor is responsible for the personal and professional development of the pupil nurse by providing support in the clinical area. Nurse educators should use their skills and experiences in supervising the pupil nurses and where explanation is necessary it should be clearly given. Nurse educators should possess adequate knowledge of the subject that they present to the pupil nurses. As pupil nurses progress with their training they gradually gain knowledge and experience. At the beginning they rely on the nurse educators completely, but as they move along the dependency continuum they gradually gain confidence to function on their own with minimal supervision and supportive assistance.

Ford and Jones (1987), as cited by Quinn (1998:187), define supervision as *planned regular periods of time that the learners and the supervisors spend together discussing the learners` work and reviewing the learning process.* Supervision is seen as a *democratic process through which nurses are given help* (Booyens 1996:284*).*

According to Lekhuleni (2002:28), the supervisor should provide for the facilitation of personal and professional growth of student nurses coupled with the provision of support and autonomy.

Within the element of support there should be openness, willingness to learn, thoughtfulness, humanity, sensitivity and trust (Quinn 1998:187). Nurse educators, as mentors, supervisors and facilitators of learning, need to have all the above mentioned skills and qualities.

Anthrobus (1997), as cited by Lekhuleni (200: 28), indicates that supervision might be viewed as *solely a support mechanism for the individual learner*. According to Gerber, Nel and Van Dyk (1999:477) a successful supervisor bears the following attributes:

- Willingness to teach others
- Motivation skills
- Advice-seeking skills
- self-organising skills
- Idea-generating skills
- Assertiveness
- Loyalty
- Quality-orientation and understanding of individual psychology.

The nurse educators of Mbongolwane sub-campus should have the above qualities in order to be effective and efficient in providing support to the pupil nurses.

A supervisor has to lead, inspire, guide, correct, solve problems, instruct and monitor (Booyens 1996:284). Lekhuleni (2002:29) indicated that the outcome of supervision might be education as well as enhanced emotional and psychological support. Nurse educators as supervisors should therefore, lead, inspire, guide, correct and monitor pupil nurses as they progress towards independence.

Shin (2000:262) reported that students in her study on the meaning of the clinical learning experience commented that when they went to the clinical setting and no longer had continuous supervision, they felt at a loss when they had to confront the many situations in the clinical area which challenged their knowledge and competence and that they experienced a feeling of abandonment. This demonstrates the student's dependence on the nurse educator for direction, guidance and support in the clinical area.

A study was conducted by Macleod-Clark et al. (1997:162,167) on the shifting perceptions of the philosophy and practice of nursing. The aims and objectives of the study included an examination of how students` perceptions of the philosophy of the practice of nursing changed during the Project 2000 programme, as well as an exploration of how others (teachers, practitioners and managers) considered the course may have changed their own and students` perceptions of the philosophy of nursing. In this study students voiced out the issue of staff shortages which they regarded as unacceptable and stated that at times they were managed by people *... who had neither nursed nor knew anything about it* (Macleod-Clark et al. 1997:164). This study raised new issues and questions concerning the experiences of students and newly qualified diplomats. These issues included staff shortages and which resulted to poor supervision and mentoring by the senior professional nurses

Mentoring:

Key elements of a mentor's role is teaching, supporting and assessing of the mentee`s performance. It is essential that the mentor-mentee relationship is characterised by mutual caring and trust to encourage the mentee`s personal and professional growth (Spouse 2003:191).

According to Gray and Smith (2000), as cited by Lekhuleni (2002:21), a good mentor possesses appropriate professional attributes, knowledge, good communication skills and the motivation to teach and support students. He/she should also be enthusiastic, friendly, and approachable, possess effective interpersonal skills, adopt positive teaching roles, pay appropriate attention to students' learning needs, and give regular feedback and appropriate supervisory support for professional development.

A study done by Aston and Molassiotis (2003:202-10), discovered that at the School of Nursing at the University of Nottingham there were inadequate staffing levels and heavy workloads. Due to the above mentioned factors, the clinical supervision and mentoring of students were problematic. A students` peer support initiative was therefore introduced at the school whereby senior students were used to supervise the junior students in their clinical placements. The scheme is conducted under the overall supervision of a clinical mentor. Both the senior and junior students found it helpful. The senior students also found it helpful because it improved their own teaching and mentoring skills.

The junior students found it helpful because it reduced their initial anxieties with the placement (Aston & Molassiotis 2003:209).

According to Orem (1995:308), some of the appropriate interventions for the implementation of the nursing system include guiding, supporting providing and teaching.
The nurse educators have to provide appropriate guidance and support through supervision and mentoring to the pupil nurses, depending on the level of training. This will promote professional maturity and, in turn, ensure a better quality of patient care at Mbongolwane district hospital.

2.3.6. Assessment

Where there is teaching and learning there must be a fair way of assessing the kind and amount of learning that has occurred as well as its effects (Hamachek 1995:374). Assessment determines if the learner possesses the necessary pre-requisites for accomplishing the objectives (Reilly & Oermann 1992:153). Assessment includes the process of collecting evidence and making judgements on whether effective teaching and learning has occurred. Assessment also ascertains whether competence has been achieved on the basis of performance measured against certain criteria. According to Orem (1995:310), factors like client's limitations, skills required to perform tasks and psychological readiness should be taken into consideration when meeting client's self care needs. This also applies to nurse educators who would keep these factors in mind when planning for and performing any kind of assessment of pupil nurses.. Assessment can be diagnostic, formative and summative (Klopper 2001:125 -127). Assessment should be done in the classroom as well as in the clinical area.

Diagnostic assessment is a good indicator of possible problem areas. It also serves to detect prior learning that has occurred in order to build on to it. Formative assessment is used to assist the educator in planning and to help guide the learners in identifying their own areas of weaknesses. Formative assessment allows nurse educators and pupil nurses to form some tentative ideas about the nature of the progress being made (Hamachek 1995:376). Assessment should be a continuous process to serve as an indication of good or poor progress (Hamachek 1995:376).

Summative assessment involves determining the overall status of learning and achievement at the conclusion of the instruction unit. It sums up the learners` overall progress. Valuable feedback about the learners` work is essential for efficient and effective guidance (Klopper 2001:29).

The importance of feedback cannot be over emphasised. Shin (2000:265) reported similar findings to those of Peirce (1991), citing students' references to *a bad clinical day as one in which staff exhibited unfavourable attitudes and in which they did not get favourable feedback.*

Assessment is therefore one way of supporting the pupil nurses as they progress towards independence. Pupil nurses must be prepared for assessment. The principles of assessment include fairness, appropriateness and validity (Hamachek 1995:381). To ensure fairness the nurse educator should consider the level of the pupil nurses when making the assessment and criteria must be applied consistently to all the learners. Appropriateness refers to the relevance of the test instrument to the content that is being measured and validity of assessment refers to the ability of a test measure to test what it is supposed to measure or test. The method of assessment should not present any barriers to achievement which are not related to evidence.

The method of assessment must also be suited to the performance being assessed. Assessment should focus on the requirements laid down. Nurse educators should therefore consider the principles of assessment as they assist the pupil nurses in the movement from dependence to independence. The instructional process in the clinical field starts with clinical objectives which are followed by the assessment of the learner. Assessment determines if the outcomes have been achieved. This study will investigate the views of pupil nurses at the Mbongolwane sub-campus on assessment done at the above sub-campus.

2.3.7. Motivation

According to Orem (1995:198), an individual has to be actively involved in self-development. For this active involvement a person has to be motivated.

Mitchell (1982), as cited by Gerber, Nel and Van Dyk (1999:257), defines motivation as *... the degree to which an individual wants and chooses to engage in certain specific behaviours*. Motivation can be defined as the *creation of dissonance that causes a human being to constantly search for new experiences that are pleasant, fulfilling, interesting, challenging and meaningful* (Klopper 2001:11). Nursing is a dynamic profession and therefore it needs people who are committed to lifelong learning. Nurse educators should therefore create the type of dissonance that will allow pupil nurses to constantly search for the information.

Botha (1988), as cited by Klopper (2001:136), defines motivation as the *selective goal- directed actualisation of motives in a situation which can arise from the initiative of a person himself or it can be set into motion by a situation.* Motivation can also be defined as the ... *direction and persistence of the individual behaviour or action* (Gerber et al. 1999:257).

Guidelines for motivation include the following:

- bearing in mind that the individuals differ from each other
- knowing a person as a unique individual
- being aware of things that threaten satisfaction
- promoting changes conducive to the satisfaction of human needs

(Gerber et al. 1999:257).

The nurse educator should therefore be a good motivator in order to offer adequate educational support.

According to Hamachek (1995:326), the factors that are related to support include self-concept, learning orientation and aspiration level. Self-concept is formed over a long period of time by means of intentional functional education. Self-concept is a cluster of perceptions and attitudes a person has about himself/herself at any given moment.

Pupil nurses have different self-concepts. Some have a poor self-image and nurse educators have to act as motivators so that these pupil nurses can successfully move towards independence. According to MacDonald (1991), as cited by Durrheim (1995:186), motivational skill is the key to successful lecturing. *...The most important agents in the motivation of student nurses are the nurse educators themselves* (Durrheim 1995:187).

Learning orientation refers to the study attitude of the learners (Klopper 2001:137). Adults` orientation to learning is life-centred and problem–centred. They learn because they want to solve a problem or leave in a more satisfying way. Nurse educators can motivate pupil nurses by offering challenging learning material which will capture their interest and therefore lead towards enhancing their competence in the clinical area.

Aspiration level refers to the level of performance that the learners intend to achieve (Klopper 2001:137). The learners should always strive for excellence for themselves. Nurse educators must ensure that outcomes are explicitly stated and must choose appropriate teaching strategies and learning activities which facilitate the achievement of outcomes. Feedback on pupil performance must be given timeously, directly after assessment to motivate pupils to improve their performance.

Nurse educators should take cognisance of the fact that a realistic, positive self-concept, high aspiration levels as well as a stable learning orientation are positively related to motivation.

2.4. THE PUPIL NURSE

Nursing education in the Republic of South Africa is qualitatively controlled by the SANC. One of the three categories of nurses trained in South Africa is the enrolled nurse.

The SANC regulation controlling the scope of practice of an enrolled nurse is R2598 of 30 November 1984 as amended (Searle 1987:192). Education and training for an enrolled nurse is a two-year certificate programme. In KwaZulu Natal the institutions which offer this programme include amongst others the following sub-campuses: Mbongolwane, Eshowe, Nkandla, Nkonjeni, Ceza, Hlabisa, and Mseleni. Mosvold and Manguzi.

A pupil nurse is a learner doing a course which will lead to his/her enrolment as a nurse. Most pupil nurses commence this course when they are in late adolescence and early adulthood, therefore principles of adult learning have to be applied during their education and training. These principles include self directedness and motivation.

There is a specific curriculum which includes course content and, clinical training. Internal and external examinations are conducted during the course of the programme. External examinations are set by the SANC for the training of this category of nurses (Regulation R2175,1993 paragraph 6(1-2) ,6(3) (a-d) 8 (1-3) (South Africa 1985).

There is only a very small annual increase in the number of enrolled nurses in South Africa. As a result the proposal of a ratio of at least 1 professional nurse to 2 enrolled nurses has not occurred over the last 6 years (Subedar 2005:1). Many enrolled nurses go on to train as professional nurses. The enrolled nurses are always next to the patient and they therefore gather a great deal of clinical experience, yet they are often looked down upon by the professional nurses. The enrolled nurses form the backbone of nursing at Mbongolwane district-hospital in KwaZulu Natal.

The nurse educators play an important role in the education and training of pupil nurses, both in the clinical area and the lecture room.

According to Mellish et al. (2000:71), nurse educators are the major role players in the professional development of nursing students, and they should therefore support the pupil nurses every step of the way.

2.5. THE SOUTH AFRICAN NURSING COUNCIL`S REGULATIONS RELATING TO THE COURSE LEADING TO ENROLMENT AS A NURSE (R2175 OF NOVEMBER 1993) AS AMENDED.

2.5.1. Conditions for enrolment as a nurse

These are as follows:

- A person should have received education and training in an approved Nursing school for a minimum of two (2) academic years
- A person should have been enrolled as a pupil nurse for the duration of the course stated in the regulation (2 academic years)
- A person should have attained the course objectives stated in the above regulations
- A person should have passed examinations (for the course leading to enrolment as a nurse) referred to in regulation 8 or has been exempted here from in terms of regulation 7 of 1993 as amended
- The nursing school where the course is followed should submit to the council a satisfactory record of the pupil nurse's theoretical and clinical training (Regulation R2175, 1993, Paragraph 2 (1) (a-e) as amended).

2.5.2. The curriculum and the course content

The preparation of pupil nurses should be such that it promotes both personal and professional development. The objectives of the course include the following:

- Ability to recognise and respect the dignity and worth of man
- Ability of the pupil nurse to understand the influence of social, cultural and physical circumstances on human behaviour and health

- Ability to demonstrate an understanding of the relevant legislation and of the common law as this applies to nursing
- abiding by the ethical and moral codes governing nursing
- Insight to practise safely and to take ethical decisions with the Provision of the relevant legislation and the scope of his practice
- Acceptance that nursing involves man at all stages of life
- ability to implement nursing acts for individuals or groups as part of the nursing regimen planned by a registered nurse with particular reference to basic human needs
- understanding the principles of comprehensive health care and recognition of the place of enrolled nurses in the health team in providing such care
- Willingness to co-operate with other team members
- Ability to recognise and carry out one's responsibility in respect of the teaching of co-workers and patients.

The above course content is divided into two academic years. The following subjects are compulsory for the first year

- Nursing History and Ethics
- Basic Nursing Care
- Elementary Nutrition
- First Aid
- Elementary Anatomy and Physiology
- Introduction to Comprehensive Health Care.

The subjects for second year of study are the following:

One of the following subjects (specialities):

- General Nursing Care
- Nursing Care of the Aged
- Nursing Care of Mentally Retarded Persons

- Community Nursing and
- Psychiatric Nursing Care. (Regulation R2175, 1993, Paragraph 6 (1-2) (South Africa 1985). The speciality that is pursued by Mbongolwane sub-campus is General Nursing Care.

2.5.3. Clinical training of pupil nurses

A minimum of 2000 hours of clinical training should be completed. This is extended over a period of the two academic years of the course.
The clinical training should include practical experience in the wards and departments at night for at least one twelfth but not more than one quarter of the prescribed period of training.

A pupil nurse will not be allocated night duty during the first six months of the first year of study. Continuous allocation for clinical practice at night should not exceed 360 hours (Regulation R2175, 1993, Paragraph 6 (3) (a – d).

2.5.4. Examinations of pupil nurses

Both the SANC and the nursing school/sub-campus take part in the examinations. First year examination consists of 2 portions, the written portion, a 3 hour examination conducted by the SANC and the practical portion conducted by the nursing school/sub-campus.

The final examination also consists of a 3 hour written portion conducted by the SANC and a practical portion conducted by the nursing school/sub campus (Regulation R2175, 1993, paragraph 8 (1-3).

2.6. THE COMMON PROBLEMS ENCOUNTERED BY PUPIL NURSES DURING EDUCATION AND TRAINING

According to Orem (1995:199), there are some events and conditions that adversely affect human development at the various stages of a lifecycle**.** Student/pupil nurses, who are undergoing training, encounter a number of problems which make their development difficult. These problems include the theory–practice gap, personal problems, anxiety and stress.

2.6.1.The theory-practice gap

One of the most important challenges facing student/pupil nurses during their education and training is the theory–practice-gap, an issue that has been debated and discussed for several decades. What happens in the clinical area sometimes ought to happen (Rolfe 2001:1). Pupil nurses often find themselves torn between the demands of the nurse educators to implement what they have learnt in theory and the pressure from practising nurses to conform to the constraints of real life situations in the clinical area.

A study conducted by Hicks (1997) in the United States of America revealed that methods of patient care management taught in the lecture room were often not introduced into the clinical setting. When learners attempted to apply new knowledge about patient care, their efforts were often misunderstood by unit supervisors and friction resulted (Lekhuleni 2002:36).

Rafery et al. (1996), as cited by Landers (2000:1550), indicated that if a gap exists between theory and practice, then efforts should be taken for the reduction thereof. To help pupil nurses overcome this theory and clinical integration gap, nurse educators and professional nurses in the clinical area should work as a team in their teaching effort.

In her research, Landers (2000:1550) aimed at providing an overview on theory-practice divide in nursing. She also suggested the ways of bridging the divide, focussing on the role of the nurse educator/teacher. Owen (1993) as cited by Landers (2000:1552) states that some students view their teachers as assessors rather than facilitators of learning in the clinical area. Some of the strategies to support students in their learning focussed on the clinical area so that the theory learned should prepare students for the clinical setting. Steel (1991) as cited by Landers (2000:1554) concludes that when nurse educators participate in clinical practice they are active role models for students and can address real nursing phenomena rather than *hypothetical abstracts*.

Fairbrother and Ford (1998) cited by Landers (2000:1554), suggested that the nurse educator, having taught a particular nursing skill in the classroom, would then support the student in applying the skill safely and correctly in the clinical area, thus enabling theory and practice to be integrated . Forrest et al. (1996:1261) emphasise that the nurse educator's teaching in the clinical area must be realistic, meaning that teaching should accurately reflect the work and demands in the clinical area.

When pupil nurses attempt to practise what they have learnt and question what is done in the wards, they often receive comments such as *... we have found that the way we do it at the moment seems to work best*. As a result of this type of comment they end up abandoning what they have learnt and do it as they are told to in the clinical area or as the situation demands.

Miller, (1985), as cited by Rolfe (2001:2), asserts that if it is virtually impossible for experienced nurses to relate nursing theory to everyday practice, then something is very wrong either with theory or practice. Fowler (1996:472) refers to the literature which analyses the development of clinical supervision, mentorship and preceptorship, indicating an explicit assumption that these roles do assist in the application of nursing theory to practice. According to Clayton,

Lypek and Connely (2000) in Tang et al. (2005:187), it is the responsibility of the nurse educator to ensure that students learn how to apply theory, gain hands-on experience, practice procedures, and develop into mature professionals. According to Forrest et al. (1996:1261), realistic teaching is teaching which accurately reflects the work and demands in the clinical area.

If there is a gap between theory and practice the pupil nurses will not be able to clearly understand what nursing is about and they will end up being confused and frustrated. Clashes in the clinical area between the nurse educators and professional nurses in charge of the clinical area and between the qualified nurses in the clinical area and the pupil nurses may occur. As these battles continue the patients will be the main victims since the quality of nursing care will drop. The person in charge of the clinical area should provide an enabling environment by making sure that there is adequate equipment in the clinical area for the nurses to implement what they have been taught.

2.6.2. Personal problems

According to Mahat (1996), as cited by du Rand and Viljoen (1999:5), personal problems that students may experience, could hamper their personal and professional development. These problems include stress which might be due to the AIDS related diseases that are affecting the entire nation and also from other causes. According to Reilly and Oermann (1992:147), the life of the nursing student has always been challenging and sometimes frustrating. The pressure at times becomes unbearable when the learner has to combine work and family responsibilities.

Students often experience personal problems such as tension, poor self-discipline, financial problems, unsatisfying intimate relationships and a lack of family support (Freense 1997:50).

These problems have to be identified and be addressed by the nurse educators. Nurse educators thus also have a moral obligation to support the pupil nurses.

One of the support measures includes the identification of these problems and bringing them to surface whilst observing the ethical and professional responsibility of confidentiality when dealing with them. The nurse educator should therefore have adequate skills for identifying such problems.
According to Fowler (1996:473,474) the nurse educator apart from teaching and supervising students, also has the role of being a source of information, advice and counselling.

Pupil nurses of Mbongolwane sub-campus, like all other nursing students, have families. They have parents, husbands, wives and children. Maintaining healthy relationships at home is a challenging task and combined with the added load of working and studying, life can become very stressful. Pupil nurses therefore need support to enable them to manage their personal problems and at the same time cope with the educational and training demands.

2.6.3. Anxiety

The students in the clinical area are faced with unexpected *occurrences and uncertainties* (Reilly & Oermann 1992:148). These occurrences and uncertainties result in anxiety.

Hart & Keck (1990), as cited by Reilly and Oermann (1992:148), examined anxiety-producing situations in the clinical setting. Students experienced the highest levels of anxiety during the initial clinical experience in the unit. In addition, students' anxiety increased in the clinical setting with non-supportive faculty. Shin (2000:260) affirms this in her study on the meaning of the clinical learning experience to the student nurse.

She cites findings by other researchers who reported that students expressed the highest anxiety level during the initial clinical experience on a unit because of their fear of making mistakes. This anxiety was increased by perceptions of non-supportive nurse educators. Junior students were reported to have significantly higher levels of anxiety than seniors did. Some of the fear-producing factors include the client population, teachers and peers that are unfamiliar to the learner.

Clinical practice places the learner in a vulnerable position in that learning occurs as public event in front of others; the teacher, clients, peers, agency staff and sometimes even individuals from other disciplines (Reilly & Oermann 1992:148).

Findings from the research conducted by Tang (2005:187) on students` perceptions of effective and ineffective clinical instructors suggested that being reprimanded in front of patients or other people was the students` cause of primary fear. Pupil nurses therefore need support to enable them to overcome fear and anxiety emanating from the above-mentioned and other factors. Nurse educators must offer support and guidance to pupil nurses.

Drennan (2002:5) conducted research on the role of the Clinical Placement Co ordinator (CPC) in the area of student nurse support in the clinical area in Ireland. The purpose of the study was to evaluate the role of the CPC and the continued development of the role in the context of this provision of student support in the clinical area (Drennan 2002:5). The study revealed that the CPC perceived the day to day support received by students as being invaluable in helping students deal with a variety of issues ranging from staff conflict, coping with complex clinical issues and personal problems (Drennan 2002:11). The availability of CPCs were perceived by student nurses as being instrumental in helping them make sense of their clinical placement as well as easing the anxieties they experienced.

One of the study limitations was the failure to include other stakeholders such as the nurse tutors, directors of nursing and others which would have added insight into the CPC`s role as part of the postal survey.

2.6.4. Stress

Brown and Edelman (2000:857-64) conducted their study on the expected and experienced stressors and support reported by students and qualified nurses. This study was conducted in the United Kingdom and it was aimed at identifying initial perceived stressors and coping resources and comparing these with actually reported stressors and available resources during a critical period in the nurses' career. Both students and staff nurses reported fewer stressors and more resources than they had predicted. Students experienced support from mentors, although this was not anticipated.

Freense (1997)conducted a study on stress and stress-related health problems amongst undergraduates at the University of Natal, Durban campus. In this study it became evident that of the 13,257 persons seen in the clinic during 1996, students accounted for 9664 (Freense 1997:3). These students often presented with stress and stress-related symptoms. Frequently cited stressors included incorrect study techniques and inadequate preparation due to poor time utilisation, incorrect choice of courses, poor self-discipline and poor time management, financial problems, other commitments (work, sports, intimate relationships and family commitments) and ill health (Freense 1997:49).

Several studies reported that when students are in clinical practice they are under great stress. They are worried about making mistakes due to inadequate knowledge and skills, they are afraid that patients will not accept a student nurse, and they fear the criticism and evaluation of their performances by other staff. Friendly attitudes and support from nurse educators were found to be extremely important to students (Tang et al. 2005:191).

2.7. CONCLUSION

In this chapter the definition of support according to various authors was explored. Support of the nurses in the classroom and in the clinical area, facilitation of learning, supervision and mentoring of pupil nurses as well as assessment and motivation were discussed. Orem`s self-care concept was explained at length and its relation to the current research indicated.

This study is about the support of pupil nurses, and therefore the SANC regulations relating to the course leading to enrolment as a nurse R2175 was briefly presented. Conditions for enrolment as a nurse, the curriculum and course content, clinical training and examinations were covered (Regulation R2175, paragraph 4, 6 (1) (2) (3) & 8).

Common problems encountered by pupil / student nurses during their education and training were also mentioned and briefly described. These problems include the theory-practice gap as well as the personal problems that they may experience during the course of their study. The literature revealed that personal problems such as ill-health, tension and other problems do hamper the learners` progress and nurse educators should be able to give advice and counselling. Students in training experience stress and anxiety during their initial exposure to the clinical area which is aggravated when staff members are not supportive.

The need for support is apparent to help pupil nurses develop both personally and professionally. If well supported, pupil nurses will be effective and dedicated in their work. In Chapter 3 the research methodology will be discussed.

CHAPTER 3

RESEARCH METHODOLOGY AND DESIGN

3.1. INTRODUCTION

The research approach and setting, period of research, population, the research instrument, ethical considerations, pre-testing and data collection will be discussed. Reliability and validity of the research instrument will also be discussed as well as the summary of data analysis. The aim of the research was to investigate the role of the nurse educator in supporting pupil nurses during the two year programme leading to enrolment with the South African Nursing Council as a nurse. This was specifically investigated at the Mbongolwane sub-campus.

3.2. OBJECTIVES OF THE STUDY

The objectives for this study were to:

-determine the support needs of the pupil nurses of Mbongolwane sub-campus

-ascertain whether the support needs of pupil nurses of Mbongolwane sub-campus are being met.

3.3. RESEARCH APPROACH AND DESIGN

According to Cowman (1992), as cited by Durrheim (1995:219), the research method should be selected for its relevance to the nature of the phenomenon being studied. A research design is defined as a systematised inquiry that uses orderly and scientific methods to answer questions or solve problems. It is also defined as an attempt to gain new knowledge through the scientific method of systematic investigation (Mellish et al. 2000:324). Research is therefore neither just an ordinary inquiry nor a haphazard investigation but it is a scientific observation.

Investigation should be made and verified on the basis of actual information instead of the personal beliefs, feelings and biases of the researcher (Mellish et al. 2000:325). Theoretically , with every research question there is one research design that may be considered the most appropriate and researchers generally choose the design that best fits their purpose and is compatible with the resources available to them (Brink 2003:100). Welman and Kruger (2002:146) define the research design as a plan according to which the researcher obtains research participants and collect information from them.

In this study, a quantitative, descriptive and explorative survey was used. Descriptive design provides the description of variables in order to answer the research question and it encompasses a wide variety of different designs that utilise both quantitative and qualitative methods (Brink 2003:109). Burns and Grove (2005:23) view quantitative research as a formal, objective and systematic process in which numerical data are used to obtain information about the world. According to Norbeck (1987) as cited by Burns and Grove (2005:23) some researchers believe that quantitative research provides a sounder knowledge base than qualitative research to guide nursing practice.

The researcher decided to use a quantitative approach because of the purpose and objectives of the study. The aim of the study was to investigate the role that is played by nurse educators in supporting pupil nurses at Mbongolwane sub-campus. In order to achieve the above and also to meet the objectives, quantitative research was viewed to be the best approach.

A survey obtains information from a sample of people through their responses to a series of questions posed by the investigator. In this study, the sample was made up of pupil nurses of Mbongolwane sub-campus and information was collected through self administered questionnaires distributed to the subjects by the researcher.

3.4. RESEARCH SETTING

The research was conducted at Mbongolwane sub-campus after permission was obtained from the relevant stake holders (see annexure A-F).
This sub campus is in KwaZulu Natal and the two year programme for enrolled nurses is offered there.

3.5. PERIOD OF RESEARCH

The research was conducted over a period of two and a half years; from June 2003 to December 2005. During 2003 the research proposal was assembled, submitted and corrected. During 2004 an extensive literature search was conducted in order to study the most recent research related to the topic. Sources in recent publications and journals were consulted. Informal meetings with the nurse educators of Mbongolwane sub-campus and those of the neighbouring institutions like Eshowe, Nkonjeni and Nkadla sub-campus were conducted with the aim of identifying the problems and shortcomings that were related to pupil nurses supported by these nurse educators.

3.6. POPULATION

The term population refers to aggregate or totality of all the objects, subjects or members that conform to a set of specifications (Polit & Hungler 1999:37). Welman and Kruger (2002:46) define the population as the *objects which may be individuals, groups organizations, human products and events or conditions which they are exposed to.* Brink (2003:132) defines population as the entire *group of persons or subjects that is of interest to the researcher and meets the criteria the researcher is interested in studying.* In a quantitative research study, the researcher identifies the population during the planning phase.

The population that was selected for this study was made up of the pupil nurses of Mbongolwane sub-campus that were being educated and trained as enrolled nurses.

Sample criteria

For the respondents to be included in the sample they had to be enrolled with the South African Nursing Council as pupil nurses in accordance with Regulation R2175 of 1993 (as amended) and they had to be undergoing education and training at Mbongolwane sub-campus.

3.7. RESEARCH INSTRUMENT

The research instrument used in this study was a questionnaire. Polit and Hungler (1999:712) define a questionnaire as a method of gathering self-reported information from the respondents through the administration of questions in a paper and a pencil format. A questionnaire simply consists of questions but the construction thereof can be a burdensome task that needs considerable practice (French, Francis & Swain 2001:103).

During this study a self-designed questionnaire was used to collect data regarding the role of the nurse educators in supporting pupil nurses. After an in-depth literature review a questionnaire was designed with the guidance of the study supervisors. After ensuring that all ethical principles were adhered to, the participants were requested to occupy the classrooms. The questionnaires were distributed and the participants were left alone to respond to the questions. After forty-five minutes the class representatives were requested to collect the questionnaires.

Polit and Hungler (1999:350) proposed that in wording questions for research purposes, the researcher must ensure that the questions for the research purpose are worded clearly and unambiguously in a manner that will minimise the risk of response bias. The researcher also needs to consider whether the respondents can be expected to understand the questions or are qualified to provide meaningful information.

The respondents were to respond to the following types of questions:

Lickert scale questions

These were used to measure the views of pupil nurses on the support they received from the nurse educators in the classroom as well as in the clinical area. Responses ranged from 1-5 (see annexure H) and the respondents had to reflect their personal views.

Dichotomous questions

These were asked and the respondents had to answer either YES or NO. A space was provided after each question (for additional comments).

Multiple response questions

Multiple choice questions were also included. The respondents had to choose from various responses, and comments were invited at the end of each question.

Open- ended questions

The respondents were asked to make suggestions on how the relationship between the nurse educators and the pupil nurses could improved in various areas.

The questionnaire was divided into five sections (Sections A-E).

Section A: Biographic data

This section consisted of a personal profile of the pupil nurses. Three questions were asked: age, level of training and home language. This information served as background information that could be used if required.

Section B: Classroom teaching

The programme of pupil nurses education and training consists of a theory and practical component. A significant amount of time is spent in the classroom undergoing theoretical instruction. The nurse educators need to support pupil nurses in this area. Eighteen questions were formulated for this section.

Section C: Clinical teaching

According to regulation R2175, as stated by the SANC, the requirements for clinical exposure for pupil nurses during the course of their education and training is 2000 hours of clinical training *which shall be spread over the two academic years of the course* (Regulation R2175,1993 paragraph 6(3)(a). The nurse educators have to accompany the pupil nurses during this exposure to guide and support them. It is for this reason that the nurse educator's role in supporting pupil nurses needs to be established. Twelve questions were asked in this section and pupil nurses were requested to comment after each question.

Section D: Assessment

The pupil nurses` progress (both in the classroom and in the clinical area) has to be monitored throughout the training. A pupil nurse is admitted to the SANC examination only after obtaining a year mark of at least 50% in a system of continuous assessment (Regulation R2175, 1993 paragraph 9 (1) (b)&9 (2) (b). The nurse educator has to play a major role in supporting the pupil nurses through and during assessment. The respondents were asked to respond to twelve questions in this section.

Section E: Motivation

A number of factors both in the classroom and in the clinical area as well as outside the training area, caused demotivation amongst pupil nurses. It is for this reason that the nurse educators should always be available to the pupil nurses to identify these factors and to help the pupil nurse to progress. The role of the nurse educator in doing this should be highlighted. The respondents were asked eight questions in this section.

3.8. ETHICAL CONSIDERATIONS

The nature of the study was explained and permission to conduct the study was asked and granted from the following persons:

1 Person in charge of nursing in the institution
2 Hospital Manager of Mbongolwane District-Hospitals
3 Head of the Department of Health KZN.

Permission was granted. The Head of the Department of Health stated that the researcher had to comply with the following conditions:

- Prior written approval had to be obtained from the Hospital Manager
- Data had to be collected outside the target group's working hours
- There should be no disruption of service delivery and patient care was not to be compromised
- Confidentiality was to be maintained
- The Department of Health had to be notified of the results
- The Department of Health had to be provided with a copy of the completed report (See annexure A, B, C & D).

Informed consent

Pupil nurses were requested in writing to participate in the study. The aim of the study was made known to them and they were also informed that they would receive no monetary benefits from participating in the study. The issue of confidentiality, anonymity and voluntary participation was also clarified to the pupil nurses (see Annexure G).

Confidentiality

Confidentiality means that the information provided by the respondents will not be publicly reported in a way which identifies them (Polit and Hungler 1995:139). In this study confidentiality was maintained by keeping collected data confidentially and not revealing subjects` identities when reporting or publishing the study.

Anonymity

This refers keeping the respondents` responses anonymous. In this study anonymity was ensured by informing the respondents not to write their names anywhere on or in the questionnaire. In this manner the respondents could not be linked to the responses.

Voluntary participation

This means participation at one's free will. In this study the subjects were informed of their rights to voluntarily consent to or decline participation and to withdraw from participation at any time without penalty (see Annexure G).

3.9. PRE -TESTING AND DATA COLLECTION

The questionnaire was constructed after a thorough review of relevant literature and sent to the supervisor for comments. The questionnaire was discussed with the supervisor and finalised as correct and suitable for collecting data from the population.

According to French et al. (2001:22), before the questionnaire is printed in large numbers and distributed, it is important to test it on a few people to eliminate problems that might have been overlooked. In October 2005 the pre-test was done. Five enrolled nurses who had been training at Mbongolwane sub-campus and who had recently completed their education and training were identified as participants for the pre-test questionnaire. The following problems were detected:

Time

Responding to the questionnaire did not take only thirty minutes as the researcher had anticipated. Time had to be adjusted to forty-five minutes as to allow the respondents to respond properly to the questions.

Instructions to the respondents

The respondents were not instructed what to do in the column that was provided for comments / explanation at the end of each question. An additional instruction was given on the fact that comments or explanations could be written where indicated.

The respondents understood all the questions and no changes were therefore made to any of the questions.

3.10. RELIABILITY AND VALIDITY

Reliability

According to Polit and Hungler (1993:445) reliability is the degree of consistency with which an instrument measures the attribute it is designed to measure. Treece and Treece (1986:253) view reliability as the ability of the data gathering device to obtain consistent results and Brink (2003:171) views it as the degree to which the instrument can be depended upon to yield consistent results if used repeatedly over time and on the same person or if used by two different investigators.

Polit and Beck (2004:35) view reliability as the accuracy and consistency of information obtained in a study. There are two basic sources of inaccuracy. One is the deficiency of the instrument and the other is inconsistency between different individuals who are taking readings from the instrument.

In this study the data collecting instrument (questionnaire) was analyzed for reliability. The same instrument was used for collecting data from all the respondents. The sample consisted of first and second year pupil nurses. The results from the first year respondents were compared with those of the second year respondents to ensure reliability. The conditions under which data was collected from the respondents was the same and they were all made comfortable.

Validity

Questions were derived from the literature review, personal observations and from consultation with the nurse educators within KZN Province who were experts in the field of nursing education. A questionnaire was given to the study supervisor for evaluation of its face and content validity as well as its conceptual clarity. The questionnaire was accepted as being able to accurately reflect the role of the nurse educator in supporting pupil nurses.

3.11. DATA COLLECTION PROCESS

The questionnaire was used as data collection instrument.

Table 3.1. Distribution of Questionnaire

ADMINISTERED	LEVEL OF TRAINING	RETURNED	%
29	FIRST YEAR	29	100%
41	SECOND YEAR	41	100%

On the 13 December 2005 all the pupil nurses were requested to remain in their classes for a few minutes after the lectures in the afternoon. The researcher requested them to participate in the study that she was conducting. The purpose of the study was explained. The consent forms for participating in the study were distributed to pupil nurses (see Annexure G). Seventy of the eighty-six pupil nurses enrolled at Mbongolwane sub-campus at the time the study was conducted, agreed to participate in the study. Twenty-nine of those that agreed were at the first year level and forty-one were at the second year level. The date, time and venue for data collection were agreed upon.

On the following day (14 December 2005) the respondents remained in their classes as per agreement and they read and signed the agreement to participate in the study. The questionnaire was distributed to them and they were given five minutes to go through it to ensure their understanding of the instructions and the entire questionnaire. A few respondents asked for clarity on some of the questions and that was given. The respondents were then left alone for forty-five minutes to respond to the questions as instructed. The class representatives from each group were requested to collect the questionnaire after the respondents had finished responding to it.

The respondents were made aware that the information collected would only be used for the research purpose and if they needed information, it would be made available to them. The respondents were also informed that they would receive no monetary benefits from participating in the study. It was explained to them that the findings from the research could bring more insight into the nurse educator`s role in supporting pupil nurses. If the support is found to be inadequate, recommendations would be made that would lead to the improvements.

Problems and shortcomings noted during this study would serve as motivation to both nurse educators and pupil nurses and, in turn, could improve the examination results and patient care.

The difficult areas in the questionnaire were explained to the respondents. They were then left alone for forty-five minutes to respond to the questionnaire. This was done to limit the research bias. After responding to the questionnaire one of the respondents from each group collected the questionnaire and submitted it to the researcher. The following advantages were detected (for the use of a questionnaire in this study):

-As the researcher was not present during the completion of questionnaires there was no research bias

-It was more economical to administer a questionnaire than to use the interview. Interviews would require the hiring and training of the interviewers or field workers

-A great amount of time was saved during the data collection process as the completion of research questionnaire took about 45 minutes and all the respondents completed their questionnaire simultaneously

-The respondents felt safe as they were not faced with the researcher during the completion of the questionnaire

-It was easy for the respondents to complete a questionnaire.

One limitation of the questionnaire that was noted by the researcher during this study was that the respondents did not respond to some of the questions and the reasons for this could not be established.

3.12. DATA ANALYSIS

Statistical analysis of data was done with the help of Statistics Department at the University of kwaZulu Natal in Durban. Both descriptive and inferential statistics were used in data analysis.

Tables, figures, pareto grams and dot plot were used to display the results of the analysis and to give the picture of different aspects of support at Mbongolwane sub-campus.

3.13. CONCLUSION

In this chapter, the research methodology has been described. The objectives of the study were briefly outlined as well as the research approach and setting. The period of research was described as well as the population and the research instrument. The researcher explained the ethical considerations that were necessary for this study. Data collection, including the research instrument and its advantages and shortfalls, and the pre-testing has been described. The reliability and validity of data collecting instrument was also indicated. A brief outline of data analysis was also made in this chapter.

CHAPTER 4

ANALYSIS AND INTERPRETATION OF DATA

4.1. INTRODUCTION

In this chapter the analysis and interpretation of data is given. The **purpose** of this study was to investigate the role that is played by the nurse educator of Mbongolwane sub-campus in supporting the pupil nurses of this sub campus. The objectives for this study were:

- To determine the support needs of the pupil nurses of Mbongolwane sub-campus
- To ascertain if the support needs of Mbongolwane sub-campus pupil nurses were met.

The **pilot** study and **data collection** was done in December 2005. To ensure anonymity of the respondents, the questionnaire was assigned numbers which did not identify them (respondents).

The **questionnaire** consists of 53 questions that are divided into five sections (biographic, classroom teaching including facilitation of learning, clinical teaching including supervision and mentoring, assessment and motivation). Most of the questions had to be answered by selecting one of two or more options that were given. In a few of the questions there was a possibility of selecting more than one option. Data analysis was done with the assistance of the Department of Statistics at the University of KwaZulu Natal. The **statistical tests** mentioned below were used during analysis of data:

- Kruskal- Wallis test

This is a non-parametric test used to compare three or more independent groups of sampled data. This test uses ranks of the data rather than their raw values to calculate the statistics and it does not make a distributional assumption (WINKS Statistics Software for Research ....2006).

- Somers` d test

This is the test that is used to determine the strength and the direction of relation between pairs of variables. Its values range from -1.0 (all pairs disagree) to 1.0 (all pairs agree) (Annotated SAS Output...2006).

- Chi-square test

This is a non- parametric statistical test that is used for comparing sets of data that are in the form of frequencies (Brink 2003:191).

Tables, graphs, a dot plot and figures were used to display data.

The respondents were required to respond to Section A which had biographic data by inserting an X in the appropriate block. Frequency distribution was used to display data that was obtained. According to Knapp (1998) as cited by Lekhuleni (2002:68) tables are generally more useful for summarising data, as they can be more easily understood by the reader.

Section B dealt with classroom teaching including the facilitation of learning. The respondents were requested to insert an X in the appropriate block and also give comments or explanations where indicated. The following keys were given to the respondents as a guide when responding: strongly disagree, disagree, not sure, agree and strongly agree. The other set of questions needed a Yes or No response and another set needed never, seldom, not sure, often and always responses.

Section C dealt with clinical teaching including supervision and mentoring. Section D dealt with assessment and the keys used were similar to those in Section B. The last section, section E dealt with motivation and the keys similar to the previous sections were used and in addition the following keys were also used: very low, low, moderate, high and very high.

The respondents were requested to make general comments at the end of each question and also at the end of the questionnaire to enable them to speak out other issues not covered in the questionnaire but relevant to pupil nurses` support by the nurse educators.

The first stage of data analysis is a descriptive one; setting out the results in a summary form of tables or graphs (Gilham 2004:49). According to French et al. (2001:202), the question "WHAT HAVE YOU FOUND SO FAR" can be the most threatening and anxiety provoking of all to researchers. In a quantitative research study the patterns in the social and physical world are revealed through the use of numbers and statistics (French et al. 2001:202).

4.2. THE POPULATION

The population of this study consisted of pupil nurses of Mbongolwane sub-campus. These pupil nurses were studying a course leading to their eventual enrolment as a nurse. This is a two year programme. Some of the respondents were at first year and others at the second year level. The population consisted of seventy respondents and the breakdown was as follows:

Table 4.1 Number of respondents

FIRST YEAR PUPIL NURSES	29
SECOND YEAR PUPIL NURSES	41
TOTAL RESPONDENTS	70

4.3. THE RESULTS OF THE QUESTIONNAIRE

4.3.1. Analysis of Biographic Data from Section A

The questions that describe the respondents are referred to as subject descriptors (Gilham 2004:46). The responses are chosen because of their relevance to the study the researcher is conducting. Although biographic data might not be central to the study, it assists the researcher to interpret the findings (Lekhuleni 2002:70).

Section A consists of biographic items such as age, home language and level of training.

4.3.1.1. Age distribution

The respondents were asked to write their ages in the appropriate block. A frequency table was used to organize the data.

Table 4.2. Age distribution of respondents

AGES FIRST YEAR SECOND YEAR

DATA FROM SECTION A	f	% of total sample	f	% of total sample
21-25	16	22.8%	13	18.5%
26-30	07	10%	12	17.1%
31-35	04	5.7%	09	12.8%
36-40	01	1.4%	03	4.2%
41-45	01	1.4%	04	5.7%
TOTAL	29	41%	41	59%

Table 4.2. revealed that 29 (41%) of the respondents were between 21 and 25 years of age (question 1) which is between late adolescence and early adulthood.

Adolescence is a transitional period between childhood and adulthood. According to Hamachek (1995:120), depression and emotional instability are the most common emotional experiences of the adolescents. This may be because many things happen to a person simultaneously during this stage of development: there are physically, psychologically and socially. A positive and non-judgmental approach by an educator can be of help to the adolescent. Adolescents are always faced with adjustment problems and therefore significant support and guidance is needed in order to overcome these problems.

Table 4.2. Also revealed that 13 (27%) of the respondents were between the ages of 31 and 35. This is the stage when most people start their own families and have to adjust to this new experience. These pupil nurses are under additional pressure because of their studies. Understanding and support is also required at this stage.

4.3.1.2. Home language

The medium of instruction at the Mbongolwane sub-campus is English. The home language of 69 (98.5%) of the respondents was isiZulu and for only one it was English (question 2). Pupil nurses might perform poorly in the classroom because of the language problem. This called for special support for pupil nurses. Luthuli, Masela and Zuma (1992), as cited by du Rand and Viljoen (1999:4) stated that in a foreign language, the student nurse has to *adapt and internalise the subculture of nursing.* According to du Rand and Viljoen (1999:5), a number of researchers have found that black students , especially in their first year of study experience learning and other problems. It appears that one of the main reasons for these problems is the disadvantaged school system from which these students come and consequently, their inadequate preparation for the demands of university life (du Rand & Viljoen 1999:5).

On the other hand, the sole English speaking respondent may face being an outcast and therefore may also need special support from the nurse educator. It is natural that people of the same race, gender and age group together and this might also be the case at Mbongolwane sub-campus. The problems of the single English speaking respondent may be aggravated by the fact that the patients at the Mbongolwane District -Hospital which is used as a clinical area for Mbongolwane sub-campus, are almost all Zulu speaking. The clinical exposure experience might therefore be more frightening and this might lead to poor performance in this area of education and training. One of the problems that were expressed by black nursing students in the study conducted by du Rand and Viljoen was the exposure to different cultures with which they were not familiar (du Rand & Viljoen 1999:10).

4.3.1.3. Level of training

(see Table 4.1.)

The first year pupil nurses may need more support especially in the clinical area because they are still new to the field of nursing and they are scared of making mistakes. Kleehammer, Hart and Keck (1990) as cited by Shin (2000:260) reported that the students in their study expressed the "highest anxiety for the initial clinical experience on a unit, and the fear of making mistakes, and their anxiety was increased in the clinical setting by their perceptions of non-supportive faculty". The juniors in this study expressed more anxiety than seniors. Orem`s theory of self care highlights the process of progressing from the state of dependence to the one of independence. When the pupil nurses commence their training they can be regarded as completely dependent on the nurse educators and as they progress they gradually learn to work independently and the level of dependency decreases.

4.3.2. Analysis of classroom teaching

The learning environment has an effect on the performance of the pupil nurse in the classroom.

4.3.2.1. Physical learning environment

According to Slavin (1995:172), the physical and psychological (emotional) environments in the lecture room as well as in the clinical area significantly affect student nurses` learning responses.

Table 4.3.Physical learning environment (refers to question 4).

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	1	1.4	1.4	1.4
Disagree	7	10.0	10.0	11.4
Not sure	4	5.7	5.7	17.1
Agree	36	51.4	51.4	68.6
Strongly agree	22	31.4	31.4	100.0
Total	70	100.0	100.0	

The majority of respondents (82.8%) agreed that nurse educators create a positive physical learning environment in the classroom.

The results suggested that the physical learning environment at Mbongolwane sub-campus is conducive to learning. Orem (1995:17) views support as providing another person with material resources as closely related to the giving of physical and psychological support.

The nurse educators are the facilitators of learning in a nurse training and education institution. Young, van Niekerk and Mogotlane (2003: 306) affirm that successful teaching requires an environment that is conducive to teaching and learning. According to Olivier(2002:135) the role of the facilitator starts before facilitation and this includes preparation of the environment. It is therefore the responsibility of the nurse educator to ensure that the classroom is conducive to learning.

4.3.2.2. Facilitation of learning

Classroom teaching involves facilitation of learning. According to Fichardt (1997:7), the facilitator who respects natural creative thinking and provides feedback, can promote learning.

The results of this study revealed that some of the pupil nurses of Mbongolwane sub-campus were in the transitional period between childhood and adulthood and therefore the principles of adult learning have to be implemented.

Table 4.4. Promoting student understanding (refers to questions 8, 11&15)

	Frequency			Percent			Valid Percent			Cumulative %		
	8	11	15	8	11	15	8	11	15	8	11	15
Never	-	1	1	-	1.4	1.4	-	1.4	1.4	-	1.4	1.4
Seldom	2	-	3	2.9	-	4.3	2.9	2.9	4.3	2.9	-	5.7
N/sure	5	1	5	7.1	1.4	7.1	7.1	10.0	7.7	10.0	2.9	12.9
Often	34	8	22	48.6	11.4	31.4	48.6	58.6	31.4	58.6	14.5	44.3
Always	29	59	39	41.4	84.3	55.7	41.4	100	55.7	100	100	100
Total	70	69	70	100	98.6		100		100			

Most (90%) of the respondents stated that the nurse educators taught and explained in such a way that they clearly understood the information (question 8). The results suggested that student understanding was promoted and this indicated that good facilitation was done by the nurse educators. According to Lekhuleni (2002:16), support involves facilitation of learning and mentorship. Muniski (1999:29) states that nurse educators are facilitators and that effective facilitators encourage the development of positive attitudes while providing support.

The majority (97.1%)of the respondents stated that nurse educators always gave them the opportunity to ask questions during and after the lectures (question 11).

The results in this study suggested that an atmosphere of openness was created in the classroom which made the environment conducive to learning.

Most (87.1%)of the respondents affirmed that nurse educators always put effort into preparing and using teaching aids (question15). According to Durrheim (1995:173), using various media during instruction of student nurses serves as a vehicle to deliver instruction. The use of teaching aids promotes understanding of the lesson.

Table 4.5 Nurse Educator preparations (refers to questions 5, 7 &16)

	Frequency			Percent			Valid percent			Cumulative %		
	5	7	16	5	7	16	5	7	16	5	7	16
No	2	10	8	2.9	14.3	11.4	2.9	14.3	11.4	2.9	14.3	11.4
Yes	68	60	62	97.1	85.7	88.6	97.1	85.7	88.6	100	100	100
Total	70	70	70	100	100	100	100	100	100			

A high percentage of respondents (97.1%) agreed that nurse educators explain objectives clearly before the lessons (question 5). According to Hamachek (1995:377), almost all educational psychologists and teachers agree that objectives are important for effective education to take place. Amongst the advantages of objectives is that they can be utilised as the basis for constructing examinations. Clearly explained objectives facilitate understanding of the lesson or subject.

Most (85.7%) of the respondents agreed that nurse educators prepare well for the lectures (question 7). According to Sherman et al (1987), as cited by Fowler (1996:474), excellent teaching has been associated with five characteristics which include enthusiasm, clarity, preparation, organisation, a stimulating lecture style and a love of knowledge. The results suggested that most (88.6%) of the respondents felt that nurse educators possess enough knowledge of the subjects they present to them (question 16).

Forrest et al. (1996:1261) feel that there is a need for nurse educators to have expertise in their subjects.

Most (84.2%) of the respondents stated that group discussion sessions were used by the nurse educators as the main teaching method (question 6).

This method promotes growth of pupil learners in group interaction and also in their ability to find information on their own and share that information with others. With the constant use of this method, the pupil nurses begin to move from a state of dependence to one of independence. Most (68.5%) of the respondents also stated that the lecture method was sometimes used. This method, however, does not promote growth and independence in education and training and should be minimised in adult learning. Less than half (41.4%) of the respondents chose assignments as the method most commonly used. Only one 1.4% choose case studies as the method used by the nurse educators.

Assignments and case studies assist the pupil nurses as they progress from being completely dependent on nurse educators for learning to being partly dependent on them. The results suggested that assignments and case studies were not commonly used and this could result in poor progress from dependence to independence since these two methods promote independence.

4.3.2.3. Theory-practice integration

For effective training and education to take place, theory should be integrated with practice.

Table 4.6. Examples in the clinical area (refers to question 17)

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	1	1.4	1.4	1.4
Not sure	2	2.9	2.9	4.3
Often	26	37.1	37.7	42.0
Always	40	57.1	58.0	100
Total	69	98.6	100	
No response	1	1.4		
TOTAL	70	100.0		

The results suggest that almost all (98.8%) of the respondents stated that nurse educators always refer to examples in the clinical area when teaching theory to their pupils. This promotes the integration of theory and practice. According to Forrest et al. (1996:1261), realistic teaching is teaching that accurately reflects the work and the demands in the clinical area.

4.3.2.4. Assessment and feedback

Table 4.7. Questions on feedback (refers to questions 9, 10, 12 &13)

	Frequency				Percent				Valid Percent				Cumulative %			
	9	10	12	13	9	10	12	13	9	10	12	13	9	10	12	13
No	10	27	2	5	14.3	38.6	2.9	7.1	14.3	39.7	2.9	7.1	14.3	39.7	2.9	7.2
Yes	60	41	68	64	85.7	58.6	97.1	91.4	85.7	60.3	97.1	91.4	100	100	100	100
Total	70	68	70	69	100	92.1	100	98.5	100	92.1	100	98.5				
No/resp.	-	2	-	1	-	2.9	-	1.4	-	2.9	-	1.4				
TOTAL	70	70	70	70	100	100	100	100	100	100	100	100				

Most (85.7%) of the respondents agreed that nurse educators ask many questions during the lecture presentation (question 9). More than half (60.3%) of the respondents also agreed that the educators demand feedback after asking questions (question 10). This enables the educator to judge whether the pupil nurses do understand the lesson.

Almost all the respondents (97.1%) agreed that when they have been allowed to ask questions during the lecture presentation, educators give them feedback on their answers (question 12) and 91.4% agreed that they were corrected in a friendly manner if they were wrong (question13). According to Aspy et al. (1993), as cited by Fichardt (1997:7), the role of the facilitator in a small group discussion includes encouragement for participation and refraining from harsh feedback. Kyriacos (1992), as cited by Moeti et al. (2004:74), states that effective questioning is dependent upon critical thinking and facilitates successful learning. Asking questions allows the educator to judge whether the pupil nurses are following what the educator is presenting or they may need clarity in some areas. Allowing the pupil nurses to ask some questions in the classroom promotes their questioning skills and they will also learn to question what they do not understand in the clinical area and in that manner, quality patient care will be ensured.

More than half (60%) of the respondents agreed that nurse educators repeated a lesson in a nutshell with them after the lecture had been completed (question 14). The results suggested that although nurse educators made an effort to reinforce the information to pupil nurses, the way it was done was not satisfactory to all the pupil nurses.

4.3.2.5. Development of independent learning

Stimulating independent learning is essential in adult education and training. As pupil nurses progress with their education and training they have to become independent gradually. Nursing demands critical and analytical thinking and a pupil nurse that is always dependent does not make a good nurse.

Most of the respondents (87.1%) agreed that educators expect them to find information for themselves(question 18).

According to Fichardt (1997:7), one of the roles of the educator is to direct students to the available resources. This indicated that nurse educators were supporting them in moving from the state of dependence to the state of independence.

Most (82.8%) of the respondents affirmed that when they had to find information for themselves, the nurse educators always made a follow up to check the correctness of that information (question 19). This **promotes** growth from dependence to independence.

All the respondents(100%) agreed that the educators allowed them to work in groups (question 20). Working in groups gives pupil nurses the opportunity to learn how to organise themselves in groups when doing the group work and also learn how to get information on their own and share it with the group. One of the respondents commented that at times one of the pupil nurses in a group is assigned the function of facilitator. This promotes self- reliance and pupil nurses gradually become independent.

On the question of how pupil nurses would like educators to improve their classroom learning (question 21), these were the most common responses:

- nurse educators should give them short breaks in between the lessons
- nurse educators should use more teaching aids
- nurse educators should be more friendly in the classroom.

Table 4.8. Summary for classroom teaching responses

Questions	Positive response %	rank
1 The nurse educators make the classroom suitable for learning (question 4)	82.8	12
2 Do the educators explain objectives clearly before the lesson? (question 5)	97.1	1
3 Do you think the educators prepare well for lectures? (question 7)	85.7	10
4 The educators explanation the lectures in such a way that you clearly understand the information (question 8)	90	6
5 Do educators ask many questions during the lecture presentation? (question 9)	85.7	10
6 If your answer to 1.9 is "yes", do they demand feedback from you? (question10)	60.3	14
7 How often do the educators allow you to ask questions during and after the lecture? (question 11)	97.1	1
8 Do the educators give feedback on your answers? (question 12)	97.1	1
9. If your answer to 1.12 is "yes" do they correct you in a friendly manner if you are wrong? (question 13)	91.4	5
10 The educators put an effort into preparing and using teaching aids (question 15)	87.1	8
11 Do you think the educators possess enough knowledge of the subjects they present to you? (question 16)	88.6	7

12 The educators constantly refer to examples in the clinical area when they teach you theory. (question 17)	95.7	4
13 Do the educators expect you to find information for yourself? (question 18)	87.1	8
14 When you have to find information for yourself, do educators do a follow up for the correctness of information? (question 19)	82.8	12

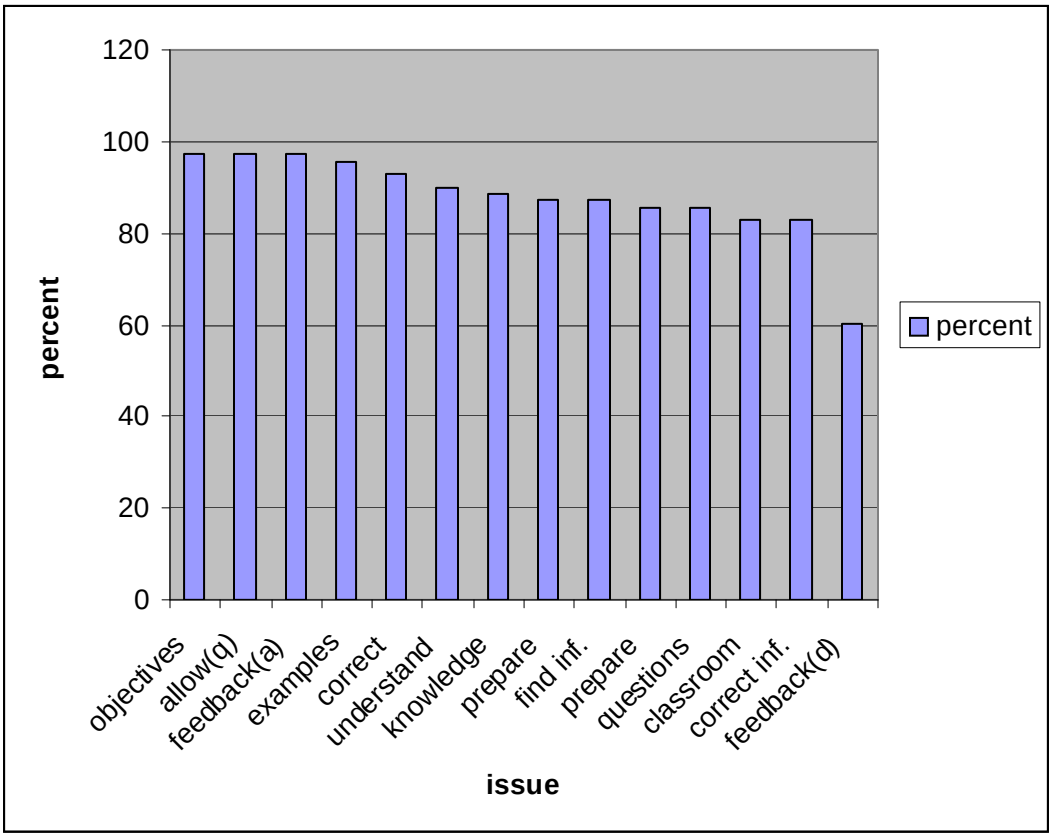

Figure 4.1 – Pareto chart of classroom teaching summary (also see Table 4.8)

The results from Section B suggested that pupil nurses of Mbongolwane sub-campus were adequately supported through classroom teaching. The ranking of the responses indicated that that nurse educators explained objectives to pupil nurses before the lessons and the pupil nurses were allowed to ask questions. The results also suggested that when asked questions, feedback was given to pupil nurses. The results indicated that the demand of feedback from pupil nurses was rated the lowest on classroom teaching responses.

4.3.3 Analysis of clinical teaching

The responses on clinical teaching revealed information on the levels of support and encouragement given by educators, their availability, theory-practice integration, being role models and the facilitation of learning.

4.3.3.1. Clinical demonstrations

Table 4.9. Demonstrations and availability of educators

q22	q27				frequency	Percent
	disagree	not sure	agree	strongly agree		
0-2	6	3	12	9	30	42.9%
3-5	6	1	12	7	26	37.1%
6-7	1	0	7	3	11	15.7%
8-10	0	0	0	1	1	1.4%
more than 10	0	0	0	1	1	1.4%
Total	13	4	31	21	69	98.6%

The results revealed that 42.9% of the respondents stated that clinical demonstrations took place between O-2 times per week and 37.1% felt that demonstrations took place between 3-5 times per week. Most (74.3%) of the respondents stated that the nurse educators were always available in the clinical area to give guidance and support. Somers'd = 0.103 with a p-value of 0.327. The variables q22 and q27 are not significantly associated. In spite of the fact that nurse educators are always available in the clinical area the number of clinical demonstrations is low. Acton et al. (1992), as cited by Forrest et al. (1996:1260), suggest that the clinical role of the nurse teacher should be that of a facilitator and supporter, rather than that of clinical practitioner.

4.3.3.2. Theory-practice integration

Less than half (48.6%) of the respondents stated that they were not happy with clinical allocations (question 23) and some of the reasons given (question 24) were:

- They were used as the work force at times

-they were allocated in the same wards for more than one month in succession at times

-they were maltreated by some of the qualified staff

-the nurse educators were not always available in the clinical area.
-it was difficult for them to implement what they had been taught due to the shortage of equipment in the clinical area.

The above statements meant that effective teaching and learning was not taking place as it was supposed to and that some of the pupil nurses did not enjoy clinical exposure. These results were a cause for concern at Mbongolwane sub-campus because of their implications for the education and training of pupil nurses in this sub campus and in turn their implications on patient care.

These results correlated with the results of the study that was conducted by Macleod-Clark et al.(1997) on Project 2000 where they studied the shifting perceptions of the philosophy and practice of nursing. In this study, the student nurses stated that staff shortages were a problem to such an extent that sometimes they were managed by people who had neither nursed nor knew anything about nursing (Macleod-Clark et al. 1997:164). According to du Rand and Viljoen (1999:10), the registered nurse in the clinical area should be made a co-educator.

The results of this study also correlated with the results of the study conducted by du Rand and Viljoen (1999) where certain stressors and discrimination by the registered nurses in the clinical practice were amongst the problems that were expressed by black nursing students at the University of Orange Free State (du Rand and Viljoen 1999:10).

Most (82.9%) respondents agreed that nurse educators provide them with the necessary theory before exposing them to the clinical area (question 26). This suggested that pupil nurses were prepared for clinical exposure.

Fairbrother and Ford (1998) cited by Landers (2000:1554), suggested that the nurse lecturer, having taught a particular nursing skill in the classroom, would then support the student in applying the skill safely and correctly in the clinical area, thus enabling theory and practice to be integrated.

4.3.3.3 Nurse educator preparation

Most (85.5%) of the respondents agreed that nurse educators take time to prepare for the procedures(question 25) and 95.4% agreed that they (Nurse Educators) possess adequate skills to demonstrate procedures (question 28). These results suggest that the nurse educators prepared well and would thus promote the theory practice integration and in that fashion improve the quality of patient care by the pupil nurses. Tang (2005:167) states that to effectively perform his/her role, professional competence, interpersonal relationship skills, personal characteristics and teaching ability are all required of clinical nursing instructors. This includes their ability to prepare for the procedures so as to ensure proper socialisation of pupil nurses to the nursing profession.

4.3.3.4. Support, supervision and being a role model

Responses to questions with regard to support, supervision and being a role model during clinical practice are illustrated in table 4.10.

Table 4.10 Clinical skills development (refers to questions 29, 30 &31)

	Frequency			Percent			Valid percent			Cumulative%		
	29	30	31	29	30	31	29	30	31	29	30	31
Disagree	2	4	1	2.9	5.7	1.4	3.1	6.2	1.5	3.1	6.2	1.5
Not sure	8	-	-	11.4	-	-	12.3	-	-	15.4	100	100
Agree	31	61	64	44.3	87.1	91.4	47.7	93.8	98.5	63.1		
Strongly agree	24	-	-	34	-	-	36.9	100	100			
Total	65	65	65	92.9	92.9	65	100					
No response	5	5	5	7.1	7.1	7.1						
TOTAL	70	70	70	100	100	100						

Most of the respondents (84.6%) agreed that nurse educators assist them to acquire the necessary skills in the clinical area (question 29). In addition 93.8% of them agreed that nurse educators encourage them to perform functions in which they are competent(question 30) and 98.5% agreed that nurse educators encourage them to ask questions or seek guidance in the clinical area(question 31). Five respondents did not respond to these questions but this was insignificant. The results suggested that nurse educators are giving support to pupil nurses in the clinical area.

According to Tang (2005:191), when students are in the clinical area, they are stressed because of their fear of making mistakes due to inadequate knowledge and skills. They also have a fear of patients and families who may not accept them and fear of the primary nurse as well as other team members who may evaluate and criticise their performance. A supportive and friendly attitude from the nurse educators therefore becomes their salvation in this situation.

Clinical supervision assists the process of socialising staff into the values and beliefs as well as the clinical knowledge of the profession (Fowler 1996:473).

Table 4.11 Assistance and encouragement

q30	q29				
	disagree	not sure	agree	strongly agree	
No	0	1	3	0	4
Yes	2	7	28	24	61
Total	2	8	31	24	65

Somers'd = 0.122 with a p-value of 0.089. There is some (weak) evidence of a positive association between assistance and encouragement in the clinical area.

Most (96%) of the respondents agreed that nurse educators respected the patients` rights (question 32). The results suggested that nurse educators were a good example to pupil nurses since they would in turn respect the rights of the patients.

On the question of how they would like nurse educators to support them in the clinical area (question 33), these were the common responses:

- nurse educators should be more available in the clinical area
- nurse educators should do more clinical demonstrations
- nurse educators should be more friendly
- nurse educators should assist with motivation for more equipment in the clinical area so as to promote theory-practice integration.
- procedures should be standardised.

The results suggested that pupil nurses were not happy with clinical exposure and there was a need for nurse educators to look into the problem areas the pupil nurses had raised.

Table 4.12– Summary for clinical teaching

Issue	Positive response %	rank
1 Are you comfortable with clinical allocations? (question 23)	48.6	8
2 Educators take time to prepare for procedures. (question 25)	85.5	4
3 Do you think that educators give you necessary theory before you are exposed to the clinical area? (question 26)	82.9	6
4 The educators are always available in the clinical area to give guidance and support (question 27)	74.3	7
5 Do you think the educators possess adequate skills to demonstrate the procedures? (question 28)	95.4	2
6 The educators assist me to acquire the necessary skills in the clinical area (question 29)	84.6	5
7 Do the educators encourage you to perform functions for which you have competence in the clinical area? (question 30)	93.8	3
8 Do the educators encourage you to ask questions or seek guidance in the clinical area? (question 31)	98.5	1

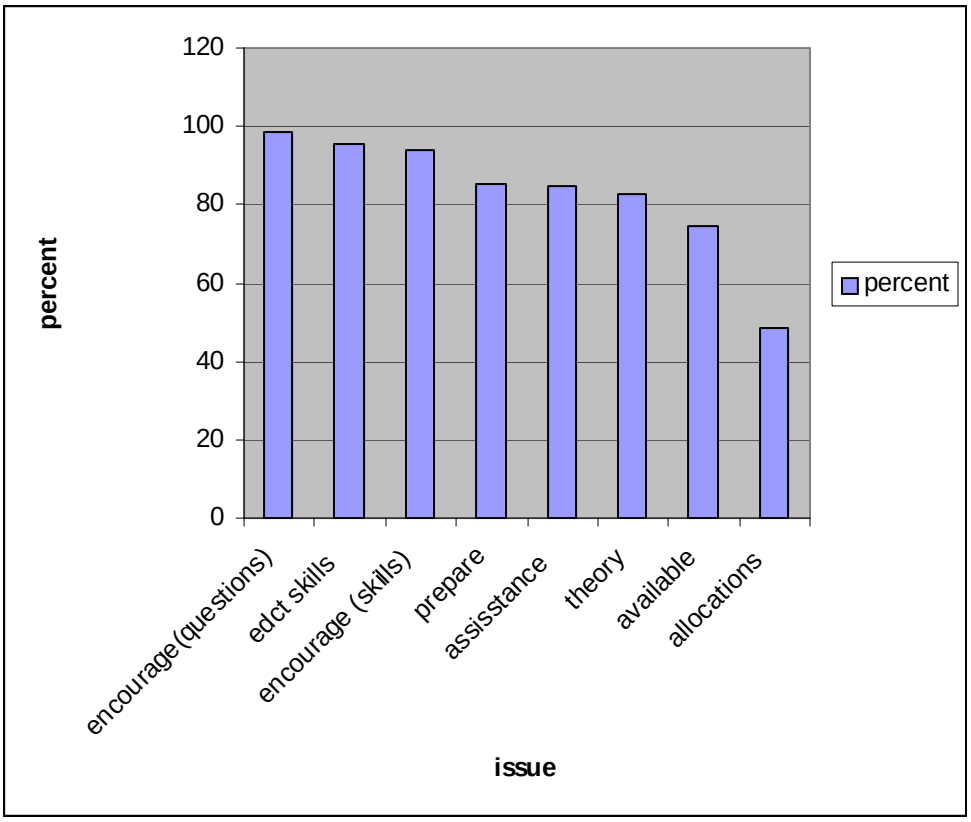

Figure 4.2 – Pareto chart of clinical teaching summary (also see Table 4.12).

The results suggest that pupil nurses receive support and supervision during clinical practical as nurse educators are available , well-prepared and encourage and assist pupil nurses to develop clinical skills. However, it appears that pupil nurses were not happy with clinical allocations. The reasons for their dissatisfaction were stated.

4.3.4. Analysis of assessment from Section D

In this section the analysis of the responses on classroom assessment (question 34-39) and clinical assessment (questions 40-44) are presented. The nature of classroom and clinical assessment differs because of a shift of emphasis from one domain of skills to another(from cognitive to an integration of psychomotor, cognitive and affective).

According to Hamachek (1999:374), where there is teaching and learning there should be a fair way of assessing the type and the amount of learning that has occurred as well as its effects.

4.3.4.1. Classroom assessment

Classroom assessment includes the evaluation of the extent to which theory has been mastered as a background for clinical exposure.

Table 4.13. Classroom assessment (refers to questions 34.35,37 & 38)

	Frequency				Percent				Valid Percent				Cumulative%			
	34	35	37	38	34	35	37	38	34	35	37	38	34	35	37	38
S/disagree	0	0	1	0	0	0	1.4	0	0	0	1.4	0	0	0	1.4	0
Disagree	12	30	3	4	17.1	42.9	4.3	5.7	18.8	46.9	4.3	5.8	18.8	46.9	5.8	5.8
Not sure	0	0	15	2	0	0	21.4	2.3	0	0	21.7	2.9	0	0	27.5	8.7
Agree	52	34	26	28	74.3	48.6	37.1	40	81.3	53.1	37.7	10.6	100	100	65.2	49.3
S/agree	0	0	24	35	0	0	34.3	50.9	0	0	34.8	50.7			100	100
Total	64	64	69	69	91.4	91.4	98.6	98.6	100	100	100	100				
No resp.	6	6	1	1	8.6	8.6	1.4	1.4								
TOTAL	70	70	70	70	100	100	100	100								

Most (81.3%)of the respondents agreed that educators explain clearly how they were going to be assessed (question 34)and more than half (53.1%) agreed that they were given enough time to study prior to writing a test (question35). Before conducting assessment there should be planning which includes explaining to the students how they are going to be assessed and agreeing on the time when the assessment is going to be done. The results suggested that planning for assessment was done, although a significant number of respondents were not happy with the time given to prepare for the test. They felt it was not adequate.

A significant number of respondents (72.5%) agreed that assessment in the classroom was fair (question 37) and 91.3% agreed that tests are thoroughly marked and feedback was given (question 38). Fairness is one of the principles of good assessment**.**

According to Klopper (2001:29), valuable feedback about the learners` work is essential for efficient and effective guidance. For the pupil nurses to progress well in their education and training, they have to be fairly assessed and feedback must be given to them so that they can identify their mistakes or weaknesses and improve. The results suggested that assessment was fair and, when combined with valuable feedback being given, it would result in the progress of pupil nurses.

The comparison was made on the responses of the candidates in question 35 (being given enough time to study prior to writing a test) and question 36 (assessment methods used in the classroom) to note the relationship of the responses to these two questions.

Table 4.14 Method of assessment and time to study

Method \ time to study	No	Yes
Oral tests only	3	6
Written tests only	15	11
Group discussion	15	16
Both oral and written tests	18	24
Assignments	12	19

More than half (60%) of the respondents stated that both oral and written tests were used as methods of assessment (question 36) and of these respondents, more than half (57%) agreed that they were given time to study prior to writing a test.

Table 4.15 – Clear explanation about assessment and fairness of assessment

	q37					
q34	strongly disagree	disagree	not sure	agree	strongly agree	
No	1	1	5	2	3	12
Yes	0	2	8	22	19	51
Total	1	3	13	24	22	63

Question 34 and 37 in the above table are closely related. Thorough explanation about the assessment indicates fairness of assessment. Somers'd = 0.220 with a p-value of 0.076. There is a significant positive association between q34 and q37.

In question 34, the respondents were asked if the nurse educators explained how pupil nurses were going to be assessed. Out of 12 respondents with NO as their response 1 strongly disagreed with question 37, where the respondents had been asked if the assessment used by the nurse educators in the classroom was fair, 1 disagreed, 5 were not sure, 2 agreed and 3 strongly agreed. Out of 51 respondents with YES as their responses none strongly disagreed with question 37, 2 disagreed, 8 were not sure, 22 agreed and 19 strongly agreed.

The results therefore indicated a significant positive association between the explanation of nurse educators on how the pupil nurses were going to be assessed in the classroom (question 34) and the fairness of assessment (question 37) as reflected in the Somer`s d above.

More than half (60%) of the respondents stated that feedback was given to both groups and individuals (question 39). The results suggested that principles of confidentiality and privacy for pupil nurses were not properly adhered to since pupil nurses were given their results in public which might cause them to humiliation and demotivation.

4.3.4.2. Clinical assessment

Nurse educators have the responsibility of evaluating the extent to which the objectives of clinical exposure are met.

Table 4.16 Clinical assessment (refers to question 40, 42, 43 & 44)

	Frequency				Percent				Valid Percent				Cumulative%			
	40	42	43	44	40	42	43	44	40	42	43	44	40	42	43	44
No	15	8	17	17	21.4	11.4	24.3	24.3	21.7	11.6	24.3	25	21.7	11.6	24.3	25
Yes	54	61	53	51	77.1	87.1	75.7	72.9	78.3	88.4	75.5	75	100	100	100	100
Total	69	69	70	68	98.6	98.6	100	97.1	100	100	100	100				
No/resp.	1	1	0	2	1.4	1.4	0	2.9								
TOTAL	70	70	70	70	100	100	100	100								

Most (78.3%) of the respondents agreed that educators gave them enough time to prepare for clinical assessment (question 40). A pre-assessment interview is essential so that the learner and the educator can discuss the logistics of the assessment which includes the date, time and the venue for the assessment. Most (75.7%) of the respondents agreed that assessment in clinical procedures was fair (question 43)and 75% agreed that if they were not satisfied with their assessment, their complaints were handled in a fair manner (question 44). The results suggested that nurse educators adhered to the principles of assessment.

Most (88.4%) of the respondents agreed that nurse educators asked them to relate to the theory during the assessment procedure(question 42). These results suggested that nurse educators promoted the integration of theory and practice. According to Moeti et al. (2004:74), the correlation of theory and practice is an important variable in the education of nursing students and may influence their learning, competence and professional conduct.

Table 4.17 Theory-practice relation
(refers to questions 26 and 42)

q26	q42		
	No	Yes	
No	2	9	11
Yes	6	51	57
Total	8	60	68

Most of the respondents (84.1%) agreed that nurse educators gave them the necessary theory before exposing them to clinical area and 88.4% agreed that nurse educators asked them to relate to theory during the procedure. The results suggested that pupil nurses were given the theory first before being exposed to the clinical area and that doing so would minimise anxiety in the clinical area. These results also suggest that there is theory-practice integration Somers'd = 0.087 with a p-value of 0.538. No association between q26 and q42.

Most (73%) of the respondents selected observation as the assessment method used in the clinical area (question 41), 71% of them chose objective structured clinical evaluation, 34% chose demonstration and 1.4% chose simulation. The results suggested that there was no balance in the assessment methods that were used.

On the question of how pupil nurses would like nurse educators to improve classroom and clinical assessment (question 45), these were the common responses:

- they wanted to be given more time to prepare for assessment
- they wanted to be corrected in a dignified manner
- they wanted marks to be allocated for group work
- they wanted nurse educators to avoid harsh criticisms.

The results suggested that a significant number of pupil nurses were not happy with assessment procedures and therefore there was a need for a review of assessment policies, procedures and practices.

Table 4.18 Summary for assessment

Issue	Positive response %	rank
1 Do the educators clearly explain how you are going to be assessed? (question 34)	81.3	3
2 Do the educators give you enough time to study prior to writing a test? 9question 35)	53.1	8
3 The assessment used by educators in the classroom is fair (question 37)	72.5	7
4 Tests are thoroughly marked and adequate feedback is given (question 38)	91.3	1
5 Do educators give you enough time to prepare for clinical assessment (question 40)	78.3	4
6 Do educators ask you to relate to theory during the procedure (question 42)	88.4	2
7 Do you think your assessment in clinical procedures is fair? (question 43)	75.7	5
8 If you are not satisfied with your assessment do you think your complaints are handled in a fair manner? (question 44)	75.0	6

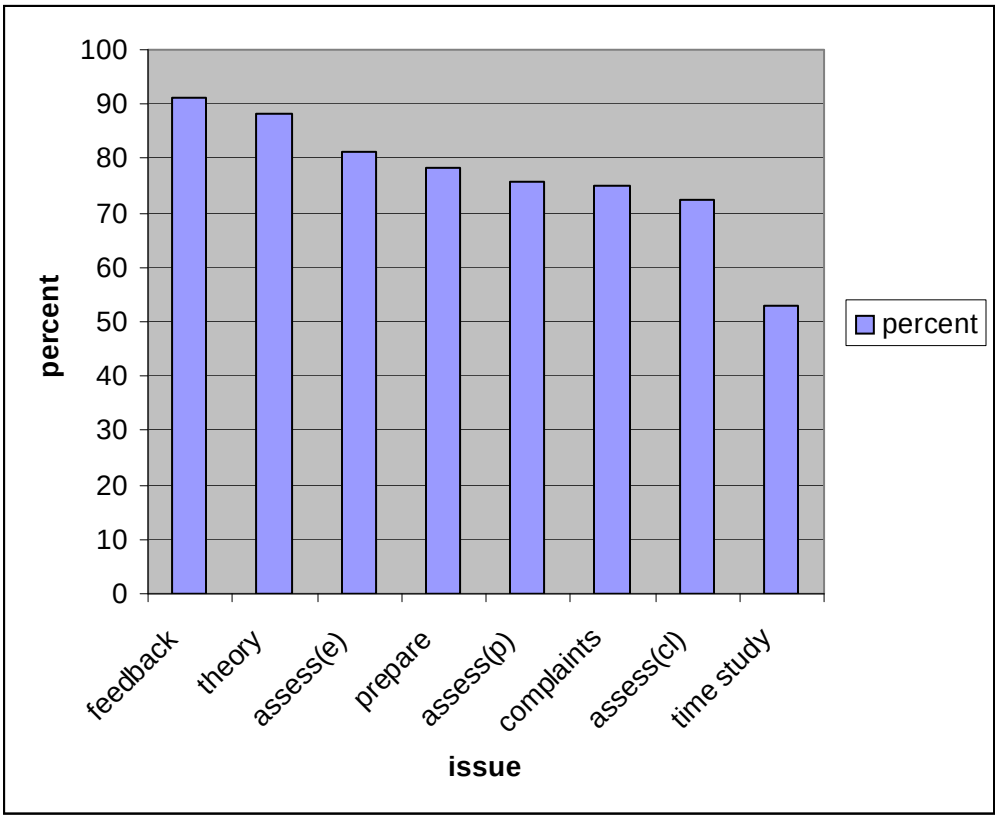

Figure 4.3 – Pareto chart of assessment summary (also see Table 4.18)

The results from Section D suggested that explanations were given of how pupil nurses were going to be assessed, tests were thoroughly marked and adequate feedback was given. The results also suggested that nurse educators related to theory when assessing pupil nurses in the clinical area.

The lowest ranking responses related to the amount of time given to study for the test, the fairness of assessment in the classroom and the fairness in handling complaints. Though the responses were above average (50%), these were the lowest responses in the assessment:

- Time given to study 53.1% (n=37)
- Fairness of assessment 72.5% (n=51)
- Handling of complaints 75% (n=53)

4.3.5. Analysis of motivation from section E

Motivation is essential as a support measure to the student/pupil nurses undergoing their nurse education and training. According to Gerber et al. (1999:257) motivation is defined as the direction and persistence of the individual behavior or action. For the pupil nurses to move from the state of dependence to independence, they have to acquire the skill of intrinsic motivation.

Table 4.19. Psychological learning climate (refers to questions 46, 48 & 49).

	Frequency			Percent			Valid Percent			Cumulative%		
	46	48	49	46	48	49	46	48	49	46	48	49
S/disagree	0	0	2	0	0	2.9	0	0	2.9	0	0	2.9
Disagree	0	1	9	0	1.4	12.9	0	1.4	12.9	0	1.4	15.7
Not sure	3	13	8	4.3	18.6	11.4	4.3	18.6	11.4	4.3	20.0	27.1
Agree	19	33	29	27.1	47.1	41.4	27.1	47.1	41.4	31.4	67.1	68.6
S/agree	48	23	22	68.6	32.9	31.4	68.6	32.9	31.4	100	100	100
Total	70	70	70	100	100	100	100	100	100			
No resp.	0	0	0									
TOTAL	70	70	70									

Efforts made by the nurse educators to know pupil nurses by name was confirmed by most (95.7%) of the respondents (question 46). Calling a person by his/her name is an indication that you have an interest in him/her. In addition pupil nurses feel important and motivated if nurse educators call them by their names. Individuals are more receptive to their names than any other word.

Most of the respondents (80%) agreed that nurse educators made teaching enjoyable (question 48) and 72.8% agreed that nurse educators acted in a motherly fashion towards them (question 49). These results suggested that nurse educators of this sub campus made an effort to create a positive psychological environment and to motivate pupil nurses at this institution. According to Gerber et al. (1999:257), one of the guidelines for motivation is knowing a person as a unique individual.

Because nurse educators motivate the pupil nurses of this institution they (pupil nurses) will be motivated to progress with their studies and to render nursing care to the patients independently or with very minimal supervision.

Table 4.20. Openness of nurse educators (refers to questions 47, 50 & 51)

	Frequency			Percent			Valid Percent			Cumulative%		
	47	50	51	47	50	51	47	50	51	47	50	51
No	14	10	22	20	14.7	31.4	20	14.7	31.4	20	14.7	31.4
Yes	56	58	48	80	82.9	68.6	80	85.3	68.4	100	100	100
Total	70	68	70	100	97.1	100	100	100	100			
No/resp	0	2	0	0	2.9	0	0	2.9	0			
TOTAL	70	70	70	100	100	100	100	100	100			

Most of the respondents (80%) agreed that nurse educators encouraged pupil nurses to approach them if there was a need(question 47). The results suggested that nurse educators were of help to the pupil nurses and assisted them to move from the state of dependence to the state where they would be able to render self-care. According to Orem (1995:103), self-care includes the action of a person who is matured or who is in the process of maturing and has the capabilities for being engaged in self-care. According to Van der Wal (1992:147), the tutor should listen to the students` problems on an academic level and even on a personal level.

More than half of the respondents (60%) agreed that if they had a problem they would share it with their nurse educators (question 52). The results however, indicated that quite a number of pupil nurses did not trust the nurse educators to the extent that they would share their personal problems with them. In a teaching/learning situation, the relationship of trust is important.

Most of the respondents (85.3%) agreed that nurse educators created a climate in which they wanted to learn (question 50) and 68.6% agreed that they thought that educators paid special attention and gave more time to

learners with learning difficulties (question 51). The results suggested that the nurse educators of Mbongolwane sub-campus strengthened pupil nurses` motivation through being approachable, creating a climate conducive to learning and supporting learners with difficulties.

Tables 4.21 and 4.22 illustrate the positive relationships between various aspects associated with a climate conducive to learning which strengthen learner motivation.

Table 4.21 – Educators make learning enjoyable and create a climate where students want to learn

q48	q50		
	no	yes	
Disagree	0	1	1
Not sure	3	10	13
Agree	7	25	32
Strongly agree	0	22	22
Total	10	58	68

Somers'd = 0.209 with a p-value of 0.013. There is a significant positive association between q48 and q50. It is a known fact that when students enjoy learning, it enhances their motivation to learn.

Table 4.22– Creating a good climate for learning and getting encouragement

q53	q50		
	No	Yes	
Low	0	1	1
Moderate	7	16	23
High	3	19	22
Very high	0	21	21
Total	10	57	67

Somers'd = 0.273 with a p-value of 0.003. There is a significant positive association between q50 and q53.

Table 4.23 – Summary for motivation

Issue	Positive response %	rank
1 The educators make an effort to know you by your names (question 46)	95.7	1
2 Do the educators encourage you to approach them if there is a need? (question 47)	80	3
3 The educators make learning/teaching enjoyable (question 48)	80	3
4 The educators act in a motherly fashion to all pupil nurses (question 49)	72.8	5
5 Do the educators create a climate where you as a learner want to learn? (question 50)	85.3	2
6 Do the educators pay special attention and give more time to learners with learning difficulties? (question 51)	68.6	6
7 How would you rate encouragement and support that you receive from your educators? (question 53)	63.8	7

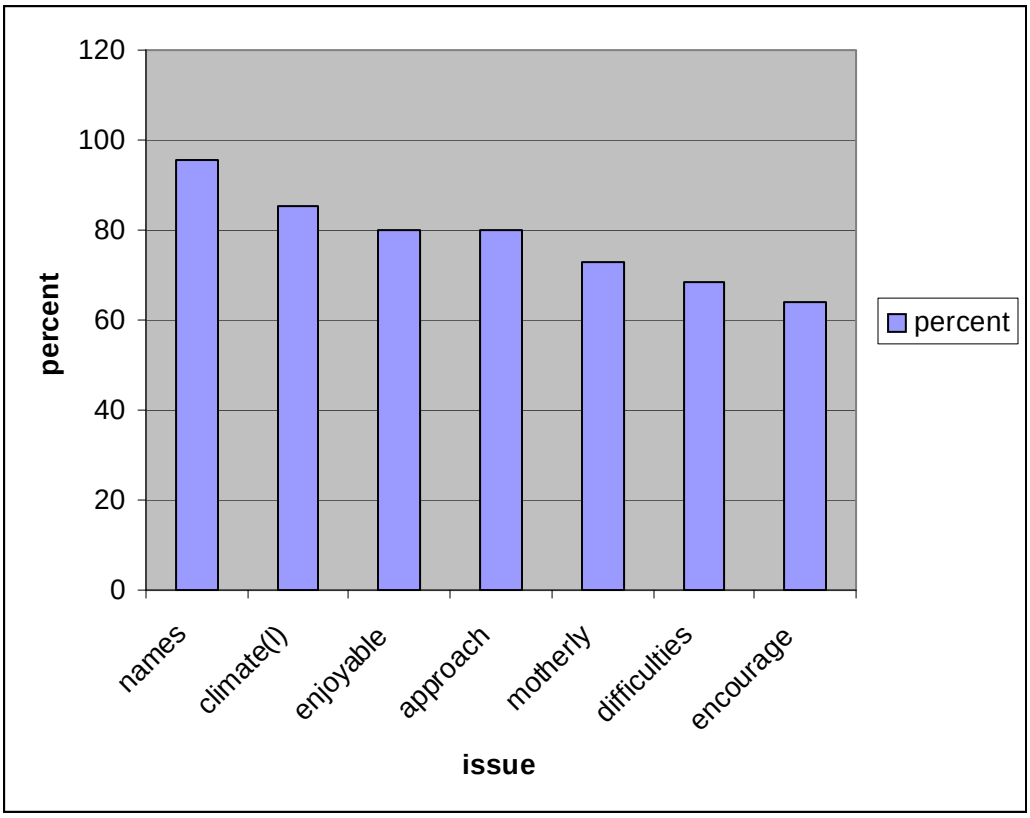

Figure 4.4 – Pareto chart of motivation summary (also see Table 4.23).

The results suggested that nurse educators made an effort to know pupil nurses by names and also encouraged students to approach them if there was a need. The lowest rated responses were on the attention given to the learners with learning difficulties (68.9%) and the encouragement and support of the learners (63.8%).

Most of the respondents (63.8%) rated the encouragement and support received from the nurse educators as high (question 53). The results indicated that even though some of the respondents were satisfied with the level of encouragement and support received from the nurse educators, quite a significant number of pupil nurses were not satisfied. In their study, du Rand and Viljoen (1999:10), discovered that stress, anxiety and physical problems were amongst the problems that troubled the black nursing population.

It is for this reason that encouragement and support should always be given to the pupil nurses.

4.3.6. Possible differences between first and second year respondents

Table 4.24 – Year of study and teaching methods

	q3		
	first year	second year	
1	6	1	7
2	1	0	1
3	8	8	16
13	3	6	9
23	1	0	1
34	0	1	1
123	0	5	5
124	0	1	1
134	6	11	17
234	1	2	3
1234	3	3	6
2345	0	1	1
12345	0	1	1
Total	29	40	69

A comparison was done between the first year and second year pupil nurses` responses on the issue of the teaching methods used by the nurse educators.

Table 4.25 – Year of study and teaching methods

Method \ year	first	second
Oral tests only	18	28
Written tests only	6	13
Group discussion	22	38
Both oral and written tests	10	20
Assignments	0	2

The results suggested that there was no association between the year of study and teaching methods. This indicated that pupil nurses were introduced to adult learning methods early in their training.

Chi-square = 1.585 with a p-value of 0.811. No association between year of study and assessment methods.

Table 4.26 – Year of study and students finding information on their own

Q 18	q3		
	first year	second year	
No	6	3	9
Yes	23	38	61
Total	29	41	70

Somers'd = 0.183 with a p-value of 0.119. No association between q3 and q18.

Table 4.27– Year of study and educators following up correctness of information found

Q 19	q3		
	first year	second year	
Never	1	1	2
Seldom	0	1	1
Not sure	6	3	9
Often	6	12	18
Always	16	24	40
Total	29	41	70

Somers'd = 0.065 with a p-value of 0.569. No association between q3 and q19.

Table 4.28 – Year of study and encouragement given by educators

Q 53	q3		
	first year	second year	
Low	1	0	1
Moderate	7	17	24
High	13	9	22
Very high	7	15	22
Total	28	41	69

Somers'd = 0.001 with a p-value of 0.995. No association between q3 and q53.

4.3.7 Comparison of support aspects

The positive response percentages summarised in Tables 4.8 (classroom teaching), 4.15 (clinical teaching), 4.18 (assessment) and 4.23 (motivation) were compared by performing a Kruskal-Wallis test. The results of this test are summarised in the table below.

Table 4.29– Results of a Kruskal-Wallis test on aspects of teaching

Aspect	Mean rank
Classroom teaching	24.54
Clinical teaching	20.25
Assessment	13.13
Motivation	13.21

Chi-square = 8.134 with a p-value of 0.043. There is a significant difference between means for the 4 aspects. It appears (see Figure 5) that the reading for the two teaching aspects are significantly higher than those for assessment and motivation.

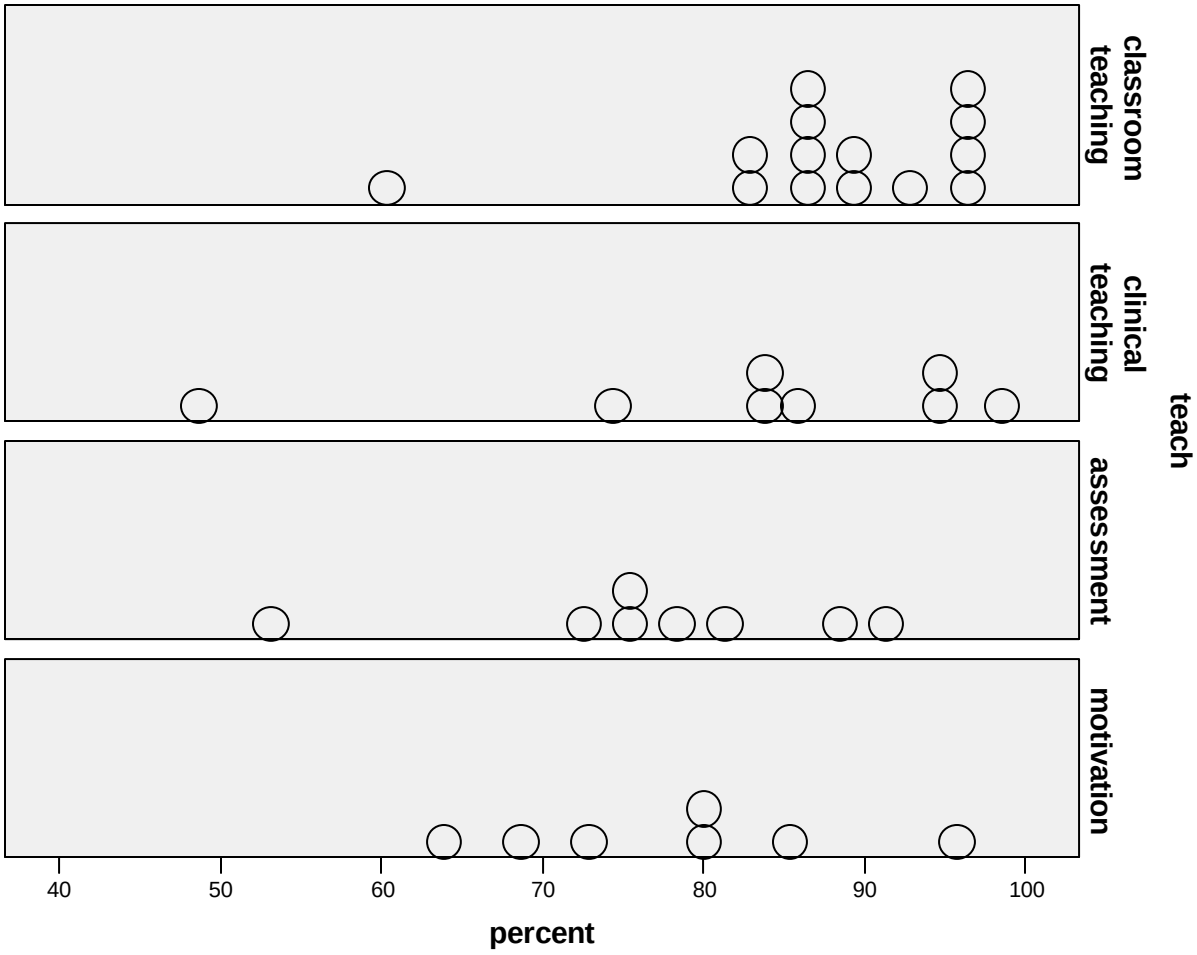

Figure 4. 5 – Dot plot of teaching aspects percentages

4.4. CONCLUSION

In this chapter data has been analysed and interpreted. This chapter was divided into five (5) sections; A, B, C, D & E. In Section A biographic data was analysed and interpreted. This data consisted of age, home language and level of training of the respondents. The results from this section revealed that 29 (41%) of the respondents were between 21 and 25 years of age. The results from this section also revealed that the home language for 69 (98.5%) of the respondents was isiZulu and also that 41 (59%) of respondents were at the second year level.

Section B dealt with classroom teaching including the facilitation of learning and the results revealed that there was adequate support was in this area. This was an indication that pupil nurses were assisted in their progression from dependence to the state of independence where they would be able to render self-care.

Section C dealt with clinical teaching, including supervision and mentoring by nurse educators and the results revealed that support was given in this area, though pupil nurses were not happy with clinical allocation . Reasons for not being satisfied were stated. The availability of nurse educators in the clinical area was also rated low compared to the other aspects of support in this area.

Section D dealt with assessment both in the classroom situation and the clinical area. The results suggested that assessment was done. Time given to pupil nurses to study prior to assessment was rated low as compared to the other aspects of assessment.

Section E dealt with motivation and the results suggested that support was given to pupil nurses in the form of motivation and that this would assist them in progressing from low to higher levels of education and training where they would be more competent in providing patient care.

There was a significant difference between the means for the four aspects (classroom teaching, clinical teaching, assessment and motivation). The ranks for the two aspects, of classroom teaching and clinical teaching, were significantly higher than for assessment and motivation.

Chapter Five will discuss the conclusion and limitations of the study. Recommendations for nursing education and for future research will also be discussed in this chapter.

CHAPTER 5

FINDINGS, LIMITATIONS, RECOMMENDATIONS AND CONCLUSIONS

5.1. INTRODUCTION

In this chapter findings from this study will be discussed as well as limitations, recommendations and conclusions. Pupil nurses have to be supported by nurse educators by means of supervision, mentoring, assessment, motivation and so on. Support in the classroom and clinical area include supervision and mentoring and these are conditions which promote development of the pupil nurse and professional growth from complete dependence on the nurse educator to minimal dependence. According to Orem (1995) as cited by George (2002:27,28), developmental self-care requisites are some of the self-care requisites and these requisites are associated with human growth and developmental processes and with conditions and events occurring during various stages of the life cycle. Certain events can adversely affect development. Nurse educators need to be role models to pupil nurses. They also need to assess if the learning outcomes of the training have been met and also need to motivate the pupil nurses.

A quantitative survey using a questionnaire was conducted with the aim of investigating the role played by nurse educators in supporting pupil nurse at Mbongolwane sub-campus in KwaZulu Natal. The objectives of the study were to determine the support needs of the pupil nurses and to ascertain whether they were met. The target group was the pupil nurses of Mbongolwane sub-campus who were completing a course leading to their enrolment as a nurse- R2175.

The findings are given in the order that as they were inferred from the analysis of the data .They pertain to biographic data, support during classroom and clinical teaching, facilitation of learning, assessment, motivation, supervision and mentoring. A discussion of the limitations of the study is given followed by the recommendations.

5.2. FINDINGS

The results of the study suggested that 41% of the respondents were between the ages 21 and 25 which is late adolescence. Adolescence is the transitional period between childhood and adulthood and pupil nurses need more support during this period of change.

5.2.1. Support in the classroom

5.2.1.1. Nurse educators appear to create a positive physical learning climate in the classroom (see 4.3.2.1.). Universal self-care requisites as stated by Orem (2001) include the maintenance of a sufficient intake of air, water and food (George 2002:128). For the promotion of meaningful pupil nurses` education and training, the physical environment should be conducive to learning.

5.2.1.2. Nurse educators still need to improve the facilitation of learning. The explanation of new information and the use of teaching aids appear to be adequate. Although group discussions are used most often together with formal lectures, assignments and case studies which are known to facilitate independent meaningful learning are used to a much lesser extent. For pupil nurses to progress from complete dependence on nurse educators to a state of minimal dependence, assignments and case studies have to be used more often.

However, the nurse educators` knowledge base, preparation for teaching and clarification of objectives are adequate and they give students sufficient opportunity to ask questions (see 4.3.2.3.). Although pupil nurses are asked many questions during the lectures nurse educators do not always demand feedback (see Table 4.8). This does not reflect effective facilitation of learning.

5.2.1.3.Theory- practice integration is promoted by nurse educators through regular references to examples in the clinical area during classroom teaching (see 4.3.2.3.). Constant reference to examples in the clinical area enables pupil nurses to understand the need for clinical exposure during their education and training.

5.2.1.4. Nurse educators encourage independent learning by expecting pupils to find information for themselves by allowing them to work in groups. Nurse educators always follow up on whether the information gathered by pupils is correct (see 4.3.2.5.). Group work promotes development from complete dependence on nurse educators to minimum dependence and pupil nurses find pleasure in finding information for themselves.

5.2.2. Support in the clinical area

5.2.2.1. Nurse educators avail themselves in the clinical area to give guidance and support to pupil nurses. However, the numbers of clinical demonstrations appear to be low (see 4.3.3.1.). As pupils` mentors and role models, the nurse educators should lead the way so that they (pupil nurses) can follow.

5.2.2.2. Pupil nurses appear not to be happy with clinical allocations and the reasons for dissatisfaction were stated. Some of the reasons were that they (pupil nurses) were sometimes used as the workforce, some times allocated to the same wards for two months in succession and sometimes maltreated by the qualified staff.

When students enjoy learning, their motivation to learn is enhanced. The results of this study suggest that pupil nurses did not enjoy the clinical exposure, so it stands to reason that their motivation to learn was not enhanced and patient care could be compromised as a result. The results of this study contradicted the results of the study conducted by Van der Wal on C*aring in Nursing Education,* where the nurse learners felt *more cared for in the clinical situation than in the classroom setting* (Van der Wal 1992:167).

Nurse educators appear to prepare pupil nurses for clinical exposure by giving them the necessary theory before exposing them to the clinical area (see 4.3.3.2.).

5.2.2.3. Preparation of nurse educators for the procedures and possession of adequate skills to demonstrate the procedures appeared to be good (See 4.3.3.3.). Pupil nurses will then learn from nurse educators as their mentors and be able to prepare on their own and also display all the skills learnt from their educators with minimal or no assistance in future.

5.2.2.4. Support, supervision and role modeling is done in the sense that nurse educators assist pupil nurses to acquire the necessary skills in the clinical area and also encourage them to perform functions for which they had competence. Pupil nurses were also encouraged to ask questions or seek guidance in the clinical area (see 4.3.3.4.). As pupil nurses move from a state of dependence on nurse educators to one of partial dependence, they need support and supervision as well as good role models.

The mean ranking of responses from this aspect was 83.8%. The results suggested that though clinical teaching results were above average, the allocation of pupil nurses to the clinical area and the teaching and supervision function of the professional nurses in the clinical area needs to be attended to.

5.2.3. Assessment

Assessment forms part of educational support

Questions 34-46 related to assessment both in the classroom and in the clinical area. Valuable feedback about the learners` work is essential for efficient and effective guidance (Klopper 2001 : 29). According to Lekhuleni (2002 :71) the student nurses might perform poorly in the classroom and clinical settings due to lack of support & trust from nurse educators and unit supervisors.

5.2.3.1. Classroom assessment

Although nurse educators do pay attention to the principles of assessment by explaining to the pupil nurses how they were going to be assessed, the results suggested that study time given prior to writing a test was not adequate. Assessment methods commonly used in the classroom included both oral and written tests. There was minimal use of assignments and group discussions as a form of assessment of the extent to which learning objectives had been met. Growth towards independence is not adequately promoted because assignment and group discussion lead to the evaluation of the extent to which pupil nurses are able to work independently and be able to analyse and debate the topics given. One of the comments from the respondents was that marks had to be given for group discussions. (See 4.3.4.).

There is fairness of assessment at this sub campus (question 37). The tests are marked feedback is given to the pupil nurses (see Table 4.13). When pupil nurses commence their education and training they have to be orientated on how they will be assessed. Prior to any assessment there should be preparation which includes agreeing with the pupil nurse(s) on when, where and how assessment will take place.

5.2.3.2. Clinical assessment

Nurse educators adhered to the principles of assessment in the clinical area by ensuring fairness of assessment, giving them time to prepare for assessment and allowing them to appeal if they are not satisfied with the results of their assessment. Theory-practice integration was promoted in this area by nurse educators giving pupils the necessary theory before exposing them to the clinical area and also asking them to relate to theory during the procedure (see 4.3.4.2.). If pupil nurses are prepared for assessment, anxiety is minimised and in that manner learning is enjoyable.

5.2.4. Motivation

The last aspect was related to motivation as a form of support to pupil nurses. According to Mc Cown, Driscoll and Roop (1992:281), motivation arises mainly from within the learner, but also can come from within the learning environment.

5.2.4.1.A psychologically comfortable learning climate was promoted in the sense that nurse educators made an effort to know pupil nurses by their names, made learning enjoyable and acted in a motherly manner towards the pupil nurses. Because nurse educators motivate pupil nurses of this institution they (pupil nurses) will be motivated to progress with their studies and to render nursing care with minimal supervision.

5.2.5. Comparisons of responses

The statistical analysis of the results suggested that there was no association between the year of study and assessment methods used by the nurse educators. There was also no association between the year of study (question 3) and the expectation of the nurse educators for the pupil nurses to find the information on their own (question 18).

This suggested that the pupil nurses were socialised to be independent from the first year of training.

There was a significant difference between the means for the four aspects of support (classroom teaching, clinical teaching , assessment and motivation). The ranks for the aspects of classroom teaching and clinical teaching were significantly higher than of assessment and motivation. Pupil nurses were adequately supported in the areas of classroom and clinical teaching, though the results suggested that respondents were not happy with certain areas of clinical teaching. Support in the areas of assessment and motivation was not adequate compared to the above two (classroom and clinical teaching). Nurse educators have to improve their support in the areas of assessment and motivation.

Although it was not an objective of this study, the finding that pupil nurses were sometimes used as the workforce in the clinical area was relevant. It is the responsibility of the nurse educator to be the pupil nurses` advocate and to ensure that they (pupil nurses) benefit from clinical exposure and are not abused to take on the workload.

Roberts and White (1989), as cited by Freese (1997:58), reported greater incidences of neurological and emotional illness among black students compared to white students. Findings from this study suggested that 69 (98.5%) respondents were Zulu speaking while only one (1.5%) was English speaking. Home language can have an influence on the academic performance of learners.

5.3. LIMITATIONS OF THE STUDY

Some of the respondents did not respond to all the questions and the reasons for that could not be established. Some of the respondents did not make the comments as they were requested to do and again the reasons for that could not be established. The comments accompanying the responses would have provided more information on the issue of support to pupil nurses. The comments would have been helpful in suggesting recommendations.

The study was limited to Mbongolwane sub-campus pupil nurses only and thus cannot necessarily be generalised to other nurse training institutions.

Only pupil nurses that were on training at Mbongolwane sub-campus in the year 2005 were included in the study. This research was therefore not representative of all pupil nurses that trained at this institution.

This study did not investigate the nurse educators` views on the issue of pupil nurses` support. This could have given an in depth understanding of the *support* of pupil nurses by the nurse educators.

Nursing has been a feminine profession for a long time. This study did not make comparisons between the male and female responses. It would have been interesting to compare the responses of these two groups.

5.4. RECOMMENDATIONS

5.4.1. Recommendations for nursing education

5.4.1.1.There is a need to analyse the teacher-student ratios to establish their effect on the capacity of nurse educators to provide support to the learners in the clinical area.

5.4.1.2. There is a need to investigate the suitability of the clinical area for the education and training of pupil nurses. There should be focus on the adequacy of the learning equipment.

5.4.1.3. There is a need for strengthening the support given to the nurse educators in the nurse training institutions so that in turn they can offer support to pupil nurses.

5.4.2. Recommendations for further research

There is a need to conduct future research on the following:

5.4.2.1. The views of the nurse educators on the issue of pupil nurse support. A qualitative research study is recommended to cover the areas that were not covered by the quantitative study on this aspect.

5.4.2.2. Clinical allocation of pupil nurses.

From this study there is evidence that suggests that, although nurse educators give support to pupil nurses at Mbongolwane sub-campus, there are some areas of concern. Comments made by the respondents on the reasons for their dissatisfaction with clinical allocation indicate that there is a need for further research in this area of pupil nurses` education and training. The registered nurse should be made a co-educator
(Du Rand and Viljoen 1999:10). Pupil nurses` support in the clinical area could be strengthened in this manner.

5.4.2.3.The role that is played by the Department of Health- KwaZulu Natal in ensuring support of the nurse learners and educators should also be established.

Questions such as those stated below, should be investigated:

- Is the educator: pupil ratio adequate?
- Is there a staff shortage in the clinical area which might influence pupil supervision negatively?
-Are nurse educator teaching loads of such a proportion that they have the time to accompany pupil nurses on a regular basis in the clinical facilities?

Research on this aspect would also be useful so that the roles of all the stakeholders be outlined and all the shortfalls can be brought to the surface and be addressed. This would finally result to the betterment of health service delivery.

5.5. CONCLUSION

This study is one of the first to investigate the role that is played by the nurse educators in supporting pupil nurses through classroom teaching, clinical teaching, supervision, mentoring, assessment and motivation. Previous studies have dealt with various aspects of student support. The research has however been confined to Mbongolwane sub-campus in KwaZulu Natal.

The results suggested that support through classroom and clinical teaching was offered. In certain aspects of clinical exposure, pupil nurses need to be monitored closely and interventions need to be made since respondents expressed problems encountered with this aspect of training. Further research is indicated to establish if these problems exist at a provincial and/ or national level. Some of the aspects of the study reaffirmed findings of previous studies on the experiences of student nurses in the clinical area. This study raises new issues and questions concerning pupil nurse support.

The study also suggested that pupil nurses were supported through supervision, mentoring, assessment and motivation. Support in the areas of assessment and motivation, however, were rated low when compared to support through classroom and clinical teaching.

Pupil nurse support is an essential component of nursing education and for pupil nurses to render quality patient care they have to be adequately supported. The researcher is confident that the study will contribute to the improvement of pupil nurse support.

BIBLIOGRAPHY

Annoted SAS Output: Ordered logistic. Regression,http. www. Ats. ucla edu/sas ologit output htm (accessed 15 December 2006).

Aston, L. & Molassiotis, A. 2003. Supervising and supporting student nurses in clinical placements: the peer support initiative. *Nurse- Education- Today,* 23(3):202-10.

Bezuidenhout, F.J. (editor) 2004. *A reader on selected social issues*. 3rd edition. Pretoria:Van Schaik Publishers.

Billings, D.M. & Halstead, J.A. 1992. *Teaching in nursing: a guide for faculty.* Philadelphia: W.B. Saunders

Birx, E. 2002. Nurturing staff-student relationships. *Journal of Nursing Education,* 41(2): 86-88.

Booyens, S.W. 1996. *Introduction to health services management*. Kenwyn: Juta & Co. Ltd.

Brink, H. & Mellish, J.M. 1986. *Teaching and learning in the practice of nursing.* Durban: Butterworths.

Brink, H. 2003. *Fundamentals of research methodology for health care professionals.* Lansdowne: Juta & Company. Ltd.

Britton, M. & Moldenhaven, Z. 1993. Student nurses` experience of support received during their training. A descriptive study

Brown, H. & Edelmann, S. 2000 Project : A study of expected and experienced stressor and support reported by students and qualified nurses. *Journal of Advanced Nursing,* 31 (4): 857-64.

Burns, N. & Grove, S.K. 2005. *The Practice of nursing research: conduct, critique and utilisation*. 5th edition. St Louis: Elsevier Saunders.

Durrheim, M. 1995. *The novice nurse educator's lecture room instructional management competence.* Dutt et Phil. Pretoria: University of South Africa.

Du Rand, P.P. & Viljoen, M.J. 1999. A development and support programme for black first year nursing students. *Research article- Curationis,* 22 (3):4:13.

Drennan, J. 2002. An evaluation of the role of the clinical placementcoordinator in student nurse support in the clinical area. *Journal of Advanced Nursing,* 40 (4):475-483.

Fichardt, A. 1997. Relevance of problem based learning to nursing education. *National Nursing Education Workshop*: University of Orange Free State.

Fischer, M., Boshoff, E.L & Ehlers, V.J 2001. Student nurses' needs to Developing basic study skills. *Curationis,* 24 (1):66-73.

Fowler, J.1996. The organisation of clinical supervision within the nursing profession: a review of the literature. *Journal of Advanced Nursing,* 23, 471-478.

Forrest, S., Brown, N. & Pollock, L. 1996. The clinical role of the nurse teacher: an exploratory study of the nurse teacher`s present and ideal role in the clinical area. *Journal of Advanced Nursing,* 24, 1257-1264.

Freense, I.E. 1997. *Stress and stress related health problems among undergraduates at the University of Natal, Durban Campus.* MA dissertation. Durban: University of Natal.

French, S., Francis, R. & Swain, J. 2001. *Practical research a guide for therapists.* Durban: Butterworths.

George, J.B. 2002. *Nursing Theories – the base for professional nursing* p*ractice.* New Jersey: Prentice Hall.

Gerber, P.D., Nel, P.S. & van Dyk, P.S. 1999. *Human resource management*. 4th edition. Cape Town: Oxford University Press.

Gilham, B. 2004. *Developing a questionnaire* New York: Continuum.

Hamachek, D. 1995. *Psychology of teaching, learning and growth*. Needham heights: Allyn & Bacon.

Hydes-Greenwood, J. Nellestein, I. & Leach, V. 2002. Return to practice. *Nursing Management-UK,* 9 (5): 2-28.

Isaacs, S.B.A. 2000. The national qualifications framework and standard setting: *A Publication of the South African Qualifications Authority*. Pretoria: Brooklyn.

Jacobs, M., Vakalisa, N. & Gawe, N. 2004. *Teaching- learning dynamics: a participative approach for O.B.E.* Cape Town: Heinemann.

Klopper, H. 2001. *Nursing education. A reflection*. Lynwood Ridge: Amabhuku publications.

Landers, M.G. 2000. The theory-practise gap in nursing: the role of the nurse teacher. *Journal of Advanced Nursing,* 32 (6):1550-1556.

Lekhuleni, M. 2002. *The perceptions/views of nursing students, nurse educators and unit supervisors on accompaniment of nursing students in the clinical setting*. MA dissertation. Pretoria: University of South Africa.

Macleod-Clark, J.M., Maben, J. & Jones, K.1997. Project 2000: Perceptions and Practice of Nursing: Shifting Perceptions - a New Practitioner*? Journal of Advanced Nursing*, 26:161-168.

Mamphela, S. 2000. The National qualifications framework: an overview. *A Publication of South African Qualifications Authority*. Pretoria: Brooklyn.

Mc Cown, R., Driscoll, M. & Roop, P.G. 1992. *Educational psychology. A learning centered approach to classroom practice*. 2nd edition. Boston: Allyn Bacon.

Mellish, J.M., Brink, H. & Paton, F. 2000. *Teaching and Learning the Practice of Nursing*. 4th edition. Durban: Butterworths.

Moeti, M.R., van Niekerk, S.E. & van Velden, C.E. 2004. Perceptions of the clinical competence of newly registered nurses in the North West Province. *DENOSA* C*urationis*, 27 (3):72-83.

Muniski, B. 1999. The Educator as a Facilitator: A New Kind of Leadership. *Nursing Forum*, 34:23-29.

Olivier, G. 2002. *Let's educate, train and learn outcomes based. A 3d experience in creativity.* Pretoria: Benedic.

Orem, D.E. 1995. *Nursing concepts of practice* .5th Edition. New York: McGraw-Hill.

Phillips, R. 1994. Providing student support system in Project 2000 - Nurse education programmes- the personal tutors' role of nurse teachers. *Nurse-Education-Today*, 14(3):216-22.

Polit, D.F. & Beck, C.T. 2004. *Nursing research- principles and methods*. Philadelphia: Lippincott Williams & Wilkins..

Polit, D.F. & Hungler, B.P. 1999. *Nursing research- principles and methods*. Philadelphia: Lippincott.

Polit, D.F & Hungler, B.P. 1995. *Nursing research- principles and methods*. Philadelphia: Lippincott.

Polit, D.F. & Hungler, B.P. 1993. *Nursing research-principles and methods.* Philadelphia: Lippincott.

Polit, D.F. & Hungler, B.P. 1987. *Nursing research- principles and methods*. Philadelphia: Lippincott.

Quinn, F.M. 1998. *The principles and practice of nursing education*. 2nd edition. London: Chapman & Hall.

Quinn, F.M. 2000. *Principles and Practice of nurse education*. Cheltenham, U.K: Stanley Thornes.

Reilly, D.E. & Oermann, M.H. 1992. *Clinical teaching in nursing education*. 2nd edition. New York: National League for Nursing.

Rolfe, G. 2001. *Closing the theory practice gap*: *A new paradigm for nursing*. Boston: Butterworths- Heinemann.

SANC, 2005. *Production of nurses*. (Document Presented at a "Consultative Workshop on the Production of Human Resources for Health" 28 January 2005 at the Airport Grand Hotel, Boksburg).

Searle, C. 1987. *Professional practice: A South African perspective*. Durban: Butterworths.

Shelton, A. 2003. Faculty support and student retention. *Journal of Nursing Education,* 42 (2):68-76.

Shin, K.R. 2000. The meaning of the clinical learning experience of Korean nursing students. *Journal of Nursing Education,* 39(6) 259-265.

Slavin, R.E. 1995. A model of effective instruction. *Educational Forum,* 59:166-176.

South Africa. 1993. *Regulations relating to the course leading to enrolment as a nurse*. Regulation R2175 in terms of the Nursing Act, 2005, Act no 33 as amended. Pretoria: Government Printers.

South Africa. 1984. *Regulations relating to the scope of practice of persons who are registered or enrolled under the nursing act, 1978.* Regulation R2598, in terms of the nursing act, 1978(act no. 50, 1978 as amended). Pretoria: Government printers.

Spouse, J. 2003. *Professional learning in nursing*. Oxford: Blackwell.

Stanhope, M. & Lancester, J. 1992. *Community health nursing: Process and practice for promoting health*. St.Louis: Mosby.

Subedar, H. 2005. *Practice of Nursing.* Paper presented at FUNDISA meeting on 28 May 2005 in Bloemfontein.

Tang, F.I. 2005. Students` perceptions of effective and ineffective clinical instructors. *Journal of Nursing Education,* 44(4):187-192.

Tang, F.I, Chou, S. & Chiang, H. 2005. Students` perceptions of effective and ineffective clinical instructors. *Journal of Nursing education* 44(4):187-189.

Treece, E.W. & Treece, J.W. 1986. *Elements of research in Nursing*. 4th Edition. Toronto: Mosby Company.

The Concise Oxford Dictionary of Current English. 1992. Clarendon press: Oxford.

Van der Wal, D.M. 1992. *Caring in nursing education*. MA dissertation. Pretoria: University of South Africa.

Van Rensburg, G.H. 1995. *The learning styles of Nursing students at a distance teaching University*. MA dissertation. Pretoria: University of South Africa.

Vlok, M.E. 2000. *Manual of Nursing Volume 2. Basic Nursing*. Revised 9th edition. Kenwyn: Juta & Co Ltd.

Welman, J.C. & Kruger, S.J 2002. *Research methodology for the Business and administrative Sciences* . Cape Town: Oxford University Press.

White, R. & Ewan, C. 1984. *Clinical teaching in nursing*. London: Chapman & Hall.

White, R. & Ewan, C. 1991. *Clinical teaching in nursing*. London: Chapman & Hall.

WINKS Statistics Software for Research. Kruskal Wallis Nonparameric Comparison. http://www. Texasoft.com/winkkrus.html (accessed 15 December 2006).

Young, A., van Niekerk, C.F & Mogotlane, S. 2003. *Juta`s manual of nursing* Volume 1. Lansdowne: Juta & Co Ltd.