PROBLEMS IN INTEGRATING THEORY WITH PRACTICE IN SELECTED CLINICAL NURSING SITUATIONS

by

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I declare that PROBLEMS IN INTEGRATING THEORY WITH PRACTICE IN SELECTED CLINICAL NURSING SITUATIONS 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.

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SUMMARY

PROBLEMS OF INTEGRATING THEORY WITH PRACTICE IN SELECTED CLINICAL NURSING SITUATIONS

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The current changes in health care systems challenges knowledgeable, mature and independent practitioners to be able to integrate theoretical content with practice. The study aims to investigate the problems of integrating theory with practice in selected clinical nursing situations. The study focused on the rendering of family planning services to clients which is a component of Community Nursing Science.

The findings of the study reveal that there is a need for an integrated holistic curriculum which will address the needs of the community. It was concluded that a problem-based and community-based curriculum, safe and patient-friendly clinical environments, intersectoral collaboration between college and hospital management and student involvement in all processes of teaching and learning will improve the integration of theory and practice. There also appears to be a need for tutors to be more involved in clinical teaching, accompaniment and the continuous evaluation of students.

Key terms:

Accompaniment, clinical teaching, clinical evaluation, optimal clinical environment, curriculum, experiential learning, integration, the Kolb Model of Experiential Learning, learning styles, practice, theory.

This study is dedicated to my mother,

Nyambeni Rhoda Davhana

and

in loving memory of my father,

Mavhuthu Kingi David Davhana

ACKNOWLEDGEMENTS

LIST OF ABBREVIATIONS

AIDS	- Autoimmune Deficiency Disease
COPE	- Client-oriented provider efficient services
HIV	- Human ImmunodeficiencyVirus
ICDP	- International Conference on Population and Development
IUCD	- Intra-Uterine Contraceptive Device
OSCE	- Objectively Structured clinical examination
PAP SMEAR	- Papanicoleau Smear
SANC	- South African Nursing Council
STD	- Sexually Transmitted Disease
UKCC	- United Kingdom Central Council

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CHAPTER 1

Introduction to the problem and the context of the problem

1.1 INTRODUCTION

Contemporary nurse training in South Africa is based on the premise that nursing students learn to apply theory in practice in a clinical setting while at the same time rendering nursing care to patients. Nursing, on the other hand, is defined as a caring profession which supports individuals in all stages of life (whether they are well or ill) – and which enables them to achieve and maintain health. In those cases where this is not possible (as in care for the dying), patients are given the care that enables them to experience a dignified and peaceful death (Mellish, Brink & Paton 1998:9). This process of providing care is possible if a nurse has sufficient theoretical knowledge to apply to whatever practical situations she may encounter. This view confirms that traditional view that nursing is an art and science in which theory and practice complement each other in effective caring. Theory and practice cannot be separated from each other. Wherever such separation *does* occur, problems of integrating theory and practice arise.

The nurse who does not have a theoretical background cannot function effectively in a practical setting. The extent of a nurse's theoretical knowledge therefore constitutes the foundation of nursing practice. McCaugherty (1991:1061) states that "theory without practice is sterile and practice without theory is blind".

The experience of the researcher has demonstrated that problems arise as students attempt to integrate theory with practice. The researcher gained this experience while working as a preceptor in clinical settings. In this capacity, she observed and taught nursing students who worked in wards during sessions of students' accompaniment.

These deficiencies in the integration of theory and practice challenge researchers to identify problems which may hamper nurse educators from teaching their students to integrate theory and practice adequately. The discussion that follows will give an overview of the background to the problem, a statement of the problem, the significance of the problem, the objectives and the research methodology which will be applied.

1.2. BACKGROUND TO THE PROBLEM

Historically nurse training was carried out in hospitals where nurse students (under the supervision of senior nurses) rendered care to patients in bed. Students were thus trained in hospitals where they were simultaneously employed. Because such a training was more orientated to practice than to theory, the training tended to resemble a kind of apprenticeship system – rather than a formal system of education. According to Potgieter (1992:140), this method of training was cheaper for hospital authorities because they used students to perform all kinds of housekeeping functions. Searle (1972), in Potgieter (1992:147), argues that, in such a system, the relationship between theory and practice was rudimentary and certainly totally inadequate as far as the requirements of modern medical practice are concerned.

During the 1940s a new system of training, the 'block' system, was introduced, which ensured that nursing students would obtain sufficient exposure to theoretical content. But this system caused students to spend most of their time at colleges and universities and far less time at hospitals – thereby separating theory from practice (Potgieter 1992:148). This system also proved unable to integrate theory and practice adequately because tutors were based in colleges and not in hospitals. Thus, although there were clinical departments, there was no communication between the two.

Thus a student who had been taught about the circulation of blood in class would be required to dress a wound in a clinical situation – and it often seemed to them as though the two experiences were unrelated. This kind of teaching encouraged nurses to memorise content

without having any clinical experience of that to which the content referred. Thus, once again, theory and practice remained unintegrated (Townsend 1990:61).

The challenge which nurse educators face today is to produce a corps of self-reliant, efficient professional nurses who are competent and capable of doing research and solving problems that arise in the workplace.

The following factors led to the reorganization of the nursing training:

- The Health Act 63 of 1977 had an influence in the nursing profession because it made provision for the development of a comprehensive health care service and designated nurses as key role players in service provision.
- The number of recruits to the nursing profession declined despite an increase in the number of matriculants.
- The Van Wyk de Vries Commission of Inquiry into Universities (1974) recommended that nursing colleges be affiliated to universities in the same way that teaching colleges are (Potgieter 1992:167).

After this period, significant changes occurred in nurse training and a more holistic approach to rendering nursing care to clients began to emerge. Yoder, Cohen and Gorenderg (1998:121) record that innovative ways of teaching nurse students were developed so that care could be rendered in a comprehensive and holistic way. This, it was hoped, would bridge the gap between theory and practice.

Since nurses were taught at colleges of nursing, theoretical content would be taught to students who had already been allocated to, for example, a clinical setting where they had to render family planning services as a part of their Community Nursing training. Some kind of briefing has to be provided for students before they enter any practical situation (White & Ewan 1991:42). Clinical situations can become very daunting for students who have no

theoretical knowledge of the practical situations which they will encounter. In such situations, the student becomes a passive rather than an active learner, and this can lead to problems in integrating theory and practice.

Ways and means need to be sought to ensure that there is an effective integration of theory and practice because this will enhance the effective rendering of family planning services within the community.

1.3. STATEMENT OF THE PROBLEM

Despite all the revolutionary changes in nursing education which were indicated in the discussion about the background to the problem, the integration of theory and practice remains a problem. After observing students working in clinical areas during formative and summative evaluation, the researcher realized that various problems still occur in clinical teaching. These problems are: (1) a lack of student involvement during clinical teaching, (2) deficiencies in evaluation of students during clinical practice, and (3) insufficient accompaniment of students in the clinical area. The area of observation on which the researcher concentrated was Community Nursing Science during the rendering of comprehensive family planning services to the community. The researcher's purpose was to find out whether or not clients were receiving enough information to guide them in making good decisions about their choice of a method.

Studies by Ferguson and Jinks (1994:688) have shown that because clinical staff experience conflicting roles when they are expected to teach *and* provide nursing care, they tend to allocate less time to teaching students. This naturally hampers any integration theory and practice.

Learning in the clinical situation is also hampered by a failure to prioritize the learning needs of students by spending a lot of time on basic and routine tasks such as, for example, damp-

dusting. Because basic care is delegated to lower ranks such as nursing auxiliaries, students frequently have to learn from the nursing auxiliaries while senior staff are engaged in doing administrative work (Ferguson & Jinks 1994:689).

This study will therefore seek to address the following issues :

- What are the problems which students encounter in integrating theory and practice when rendering family planning services?
- Does the curriculum on family planning allow for an integration of theory and practice?
- What teaching strategies could enhance the effective integration of theory and practice in family planning?
- What problems arise out of current evaluation methods used in family planning?
- Does the degree of accompaniment in family planning ensure an effective integration of theory and practice?
- Is the clinical situation for family planning services conducive to an effective integration of theory and practice?
- Have those who teach family planning specialized in the course?
- Are there any preceptors/mentors who are prepared to teach family planning in the clinical area?
- Does the clinical laboratory have enough facilities for effective teaching of family planning in the class?

1.4. THE SIGNIFICANCE OF THE PROBLEM

If the teaching of theory at colleges is properly done, students should be able to apply theory to practice and so become competent, independent practitioners. Teaching in both theoretical and clinical areas includes the processes of observation, imitation and active experimentation (Nyatanga 1989:27). Theoretical teaching is therefore as important as clinical teaching and

each complements the other. Nurse educators, preceptors, professional nurses and students have a vital role to play if effective learning is to take place.

This study attempts to make nurse educators aware of the problems which students encounter as they attempt to relate theory and practice in Community Health Nursing when rendering comprehensive family planning services. The researcher will, in particular, examine ways to find solutions to currently relevant problems. The researcher will define what these problems are and how they may be resolved.

This research is designed to encourage curriculum changes which will enable nurses to meet the needs of a rapidly changing community. This study will also address the challenge which nurse educators are facing today and will suggest the adoption of effective teaching strategies that will increase active student participation.

1.5   THE AIM OF THE STUDY

The overall aim of this study is to identify problems which nursing students encounter when integrating theory and practice and to draw guidelines for an effective integration of theory and practice in Community Health Nursing Science – with special reference to the rendering of comprehensive family planning services.

1.5.1   The objectives of the study

The objectives of the study are to:

- determine whether the curriculum for family planning allows for the integration of theory and practice
- identify teaching strategies that might enhance the integration of theory and practice

during teaching of family planning

- identify the problems which arise out of current evaluation methods used in family planning   ,

- determine whether there were any problems encountered during accompaniment of students when rendering family planning in the clinical area

- identify whether a lack of specialisation in the field of family planning could have a negative impact on teaching of nursing students

- determine whether the clinical situation for family planning was conducive to effective integration of theory and practice

- determine whether preceptors and mentors in family planning were utilized in such a way as to ensure an effective integration of theory and practice

- determine whether the clinical laboratory was fully equipped with the necessary facilities for effective teaching of family planning.

1.6   RESEARCH METHODOLOGY

Research methodology is defined as the total strategy for the study, from the identification of the problem to the final plans for data gathering and analysis (Uys & Basson 1991:37).

1.6.1   Research design

The research design adopted for the purposes of this study may be described as non-experimental, naturalistic, empirical and descriptive. A quantitative design was used to describe and interpret the results. In order to ensure systematisation in the process of research, the researcher used various phases to constitute the process.

Phase One

The purpose of phase one is to determine the deficiencies or problems which students

encountered while they were integrating theory and practice in selected clinical nursing situations. This phase was organised in such a way as to answer the research questions by utilizing the methods and techniques of research.

The researcher used covert participant observation as her data collection method under the guise of performing routine observation of the clinical facilities available to nursing students. This method of data collection is known to prevent the Hawthorne effect (about which more will be written later). The researcher is a well known tutor and the participants concerned are known to her. It was therefore easy for the researcher to gain access into the clinical field.

The researcher used a structured observational method which comprised two observation schedules (see Annexure C). These schedules clearly identified what was to be observed and precisely defined how the observations were to be made, recorded and coded (Burns & Grove 1993:781). One observation schedule was used as a guideline (criterion) to measure whether or not what had been included in the curriculum was being taught in the practical situation. The second schedule was designed to assess whether what was being done in clinical learning environment for the students allowed them to integrate theory and practice in actual practice. This observation schedule for practica was based on the schedule which was used for the assessment of the curriculum.

The first observation session examined the curriculum on family planning and took place on the campus concerned. The second observation session examined the practical performance of students in different areas of clinical allocation such as the hospitals and clinics to which they had been allocated for their clinical learning experiences. The researcher and her assistant observed the nursing students as they rendered family planning services to the clients. In this way the researcher was able to decide whether they were able to relate the services they were offering to the theoretical content which they had learned.

O   **Phase two**

The second phase dealt with sampling and the target population, the pre-testing of the instrument, validity and reliability, and ethical issues. In phase two the researcher gave a detailed explanation of how sampling was to be done and the reasons for choosing the target group, how pre-testing of the instrument was done and how the validity and the reliability of the instruments were ensured. Each of these topics is discussed below.

1.6.1.1   Sampling and the target population

A sample of research may be defined as a subset of the population that is selected for a study (Burns & Grove 1993:779). Sampling, as defined by Burns and Grove (1993:235), involves the process of selecting a group of people, events, behaviours or other elements with which to conduct a study. The *target population* is the entire population or set of individuals or elements who fulfil the sampling criteria (Polit and Hungler 1995:654).

1.6.1.1.1   The target population

The target population was composed of fourth-year student nurses in one of the tertiary institutions for nurse training in the Northern Province. Because the study would have been too wide, it was decided to narrow the scope of the study to one discipline, namely Community Nursing Science. It was then further decided to focus just on family planning

The reason for choosing fourth-year student nurses is that they have already completed the family planning component of the curriculum in class (theory) and in the clinical area (practica). They are therefore expected to be able and competent to render comprehensive family planning services to their clients. Fourth-years were also suitable for this study because they are expected to be able to examine patients and prescribe treatment and because they are also expected to advise clients on whatever methods might be most suitable for

them.

Because students have been taught about the treatment and prevention of STDs, cancer and HIV/AIDS, they are, at this level of their training, expected to be fully conversant with all the above-mentioned topics. The reasons for choosing family planning as an area on which to focus for this research will be discussed in detail in chapter 2 (see section2.5.1)

1.6.1.1.2   The sampling process

The researcher selected a convenience sample for her research while bearing in mind that her research method would involve covert observation. The convenience sampling process involves the inclusion of subjects in a study because they are available at the time of the study (Burns & Grove 1993:245). Brink (1996:140) indicates that convenience sampling allows for the inclusion of readily available subjects. Convenience sampling is classified as a non-probability sampling method. This means that not every element of the population has an equal opportunity for selection in the sample (Burns & Grove 1993: 244). The advantages of convenience sampling are that members of the sample are accessible and that the sampling process is usually less expensive to conduct. A researcher can also usually constitute an appropriate convenience sample more quickly than other kinds of sample (Burns & Grove 1993:245).

The researcher preferred to use the convenience sampling method although it is generally regarded as being less than ideal because, according to Burns and Grove (1993:245), it provides little opportunity to control for bias. Bias might arise, for example, if some students have been allocated to the clinical area for a longer time than others. Some might thus, for example, be repeating the same year of study. The researcher removed the possibility of this kind of bias by excluding those students who were repeating that part of the course from the sample. (Since they had more experience, their data might have skewed the findings.)

1.6.1.1.3   Ethical considerations

The rights of the participants in the study were protected, confidentiality and anonymity were maintained (Burns & Grove 1993:99) because the names of participating students were not recorded on observation schedules. The three hospitals where the research was undertaken were simply identified as 1,2,3 and the campus as "X". Permission to conduct the study was requested from:

●   The Superintendent General of Northern Province.

●   The deputy principal of the campus.

●   The superintendent and the nursing service manager of the respective hospitals.

Letters requesting permission to conduct the study were sent to each of the above-mentioned people. Each letter described the purpose of the study (see Annexure C), and included the observation schedules which the researcher intended to use. The Ethics Committee of the Province then requested the researcher to give a presentation of her research in person to the committee so that they might obtain greater clarity about the procedures and purposes of the study. Before the researcher could make a presentation, a provisional permission was granted. A letter from Unisa was also given to the committee for as part of the process of obtaining ethical clearance. After these events had taken place, the committee finally gave the researcher permission to proceed.

1.6.1.1.4   Validity and reliability

●   **Validity**

The researcher's observation schedules were checked for face and content validity by supervisors and colleagues of the researcher, who had a proven record of expertise in research. These people were asked to identify any ambiguities in the wording of items and

any unintentional repetition of items in another form. The researcher then consulted statisticians and asked them to establish if the instrument was sufficiently comprehensive to draw meaningful conclusions about a whole range of behaviours, and whether it was appropriate in terms of space and length.

● **Reliability**

The researcher, assisted by a professional statistician, conducted equivalent and stability tests in order to establish reliability. Reliability was confirmed.

1.6.1.1.5   Pre-testing the research instrument

Pre-testing the instrument involved observing each of a group of fourth-year student nurses for 20 minutes in one of the clinics which had *not* been included in the study, while they attended to clients who needed family planning. Pre-testing the instrument in this way helped the researcher and her assistant to acquaint themselves with the observation schedules. It was found that some of the required observations could not be conducted in practice, and these were then discarded.

O   PHASE 3

The last phase described how the researcher carried out the process of data collection and analysis. This phase served to explain how the researcher managed to obtain the necessary information from the three hospitals as well as from the campus in the northern region in the Northern Province (See Annexure A)..

1.6.1.1.6   The data collection process

The process of data collection was undertaken in two stages:

- **Stage one**

This stage involved using the observation schedule (see Annexure B) to observe the curriculum and the demonstration room at the campus where the students were being taught theory. The researcher asked the tutor responsible for teaching family planning how she taught the subject content and whether she had qualifications in any clinical specialisation such as family planning or primary health care.

- **Stage two**

The researcher visited the hospitals and clinics to which students had been allocated to render family planning services. Student nurses were evaluated by means of an observation schedule which was used for assessing students during practica (see Annexure B)..With the help of one of the clinical tutors, the researcher observed how forty (40) fourth-year students provided family planning services to their clients.

1.6.1.1.7   Data analysis

Data were electronically captured and analysed by the SAS programme. The purpose of the analysis of the computerised data was to note the percentage, mean and standard deviation of items. Computer analysis was carried out by using a statistical package known as SAS system (SAS 1985:xv).

Inferential statistics were designed to allow inferences to be made from sample statistics to a population parameter commonly used to test similarities and differences in subsets of the

sample under study (Burns & Grove 1993:770). The type of the test that was used was the t-test because it is suitable for paired comparisons in a single sample (SAS 1985:799).

1.7 EXPLANATION OF CONCEPTS

O **Accompaniment**

Accompaniment encompasses the conscious and purposeful guidance and support for the nursing student based upon her unique needs by creating learning opportunities that make it possible for her to grow from passiveness, to involvement, to independent, critical, practice (SANC 1988:4). A nursing student is guided and supported by the tutor, registered nurse when rendering family planning services at the clinics, hospitals, antenatal, postnatal and outpatient departments

O **Clinical Nursing Laboratory**

Clinical nursing laboratory refers to teaching situations that are created for the students in actual patient and simulated practical settings, namely demonstration room, clinics and hospitals rendering family planning services (SANC 1992:6).

O **Clinical practica in Nursing Education**

The student is expected to function as a member of the health team by assuming certain responsibilities from the commencement of the educational programme. These duties are regarded as constituting a component of the clinical practica, which are undertaken with accompaniment, and they are arranged in meaningful consecutive units so as to avoid unnecessary fragmentation. In this role the student is accountable for her or his own acts and omissions in accordance with the stage and terminal objectives of the programme (SANC 1992:5).

O   **Clinical teaching**

Clinical teaching is that teaching which takes place in the clinical nursing laboratory. It is the means whereby the student is taught and accompanied towards independent practice and a use of her or his own abilities (SANC 1992:7).

O   **Comprehensive course**

The *comprehensive course* is a four-year programme for the education and training as a nurse in General, Psychiatric and Community Nursing and Midwifery, which culminates in registration (see R425 22 February 1985 as amended).

O   **Integration**

Integration is a process of combining theory and practice so that they are closely linked to each other.

O   **Kolb's Cycle of Experiential Learning**

This is the process whereby knowledge is created through the transformation that arises out of experience (Mulligan & Colin 1992:51). The cycle is composed of concrete experiences, reflective observation, abstract conceptualisation and active experimentation (Kolb1984:40).

O   **Learning experience**

A *learning experience* is a learning opportunity which is used by the student (SANC 1985:4).

O   **Learning opportunity**

A *learning opportunity* is the possibility for learning which is created by a registered nurse or midwife in classroom and clinical teaching situations and which may be used by a student to reach learning objectives (SANC:6).

O   **Learning Style**

Learning style refers to individual differences in students' approaches to their studies (Quinn 1995:373).

O   **Mentor**

A *mentor* is a person who builds a close personal relationship with students on a long-term basis and who, throughout their training, acts as a role model, an ideal professional and a charismatic figure to the student (Mashaba & Brink 1994:129).

O   **Nursing Student**

The *nursing student* is a nurse undergoing a four year integrated diploma course leading to registration as a nurse (general, psychiatry, community) and midwife according to Regulation R425 of 22 February 1985, as amended. The student refers to a nurse in basic training doing Fourth year of study who acquire theoretical and practical knowledge at the college and the hospital or clinic.

O   **Preceptor**

A *preceptor* is a person who enables learning in practice while promoting and participating in the delivery of nursing care (Mashaba & Brink 1994:129).

O   **Selected clinical nursing situations**

Selected clinical nursing situations include hospitals,clinics, antenatal, postnatal and outpatient department to which nursing students are allocated for clinical learning experiences in community nursing science and in which special attention is given to family planning services.

O   **Theory**

Theory is systematic abstraction that represents perceptual experiences of objects, properties or events (Wilson-Thomas 1995:569). The subject matter of nursing as it is taught in the classroom or college constitute theoretical content.

O   **Teaching staff**

Teaching staff include any professional nurse who is involved in the teaching of students.

O   **Tutor**

A *tutor* is any qualified nurse educator who is responsible for teaching at a college.

1.8   CONCLUSION

Nurse educators have a major role to play in ensuring that an effective integration of theory and practice occurs. Nurse educators have a responsibility to maintain a balance between theoretical and clinical teaching.

This chapter focused on the background, analysis and statement of the problem, and the aims of the study.The remainder of the study is organised as follows:

CHAPTER 2 reviews literature relevant to the research.

CHAPTER 3 describes research design, type of study, research method, population, instrument and data collection.

CHAPTER. 4 presents an analysis of the data.

CHAPTER 5 presents a summary of the findings, conclusions and recommendations.

CHAPTER 2

Literature study

2.1 INTRODUCTION

This chapter reviews the literature which focuses on the problems which arise when theory and practice are integrated in selected clinical nursing situations. The problems which arise from attempts to integrate theory and practice in nursing have a long lineage – and they are problems which still affect nursing today. Ferguson and Jinks (1994: 687) indicate that several research studies which have been conducted all identify discrepancies and discontinuities between what is taught in the classroom and what is practised in clinical situations.

According to Stevenson (1996:54) and Hastings (1994:55), many changes have already been instituted on the basis of research which was conducted to identify problems of this kind. Changes which were instituted included the following: curriculum changes, the introduction of a modular system of instruction and the initiation of Project 2000. In spite of these changes, students still experience problems in integrating theory and practice.

A literature review identifies and compares earlier studies which focused on problems of integration of theory and practice. Such a review will identify any gaps in research that still need to be attended to. The literature review shows that while most studies were conducted overseas and a few in South Africa, no study of this kind was done in the Northern Province in the Northern region. It is for this reason that the researcher is doing this particular research.

Although the most important research on problems of integration of theory and practice to date has been done by Ferguson and Jinks (1994) and McCaugherty (1991), no suitable

solutions have been proposed which may be adjusted to remedy specific situations other than those which they investigated. Problems of integration of theory and practice differ according to the type of the curriculum, teaching strategies, evaluation methods, and the educational preparation of the tutors and clinical tutors concerned.

Researchers such as (Stevenson (1996), Hastings (1994), Elkan and Robinson (1993) concentrated on Project 2000. Project 2000 outlines a new programme for practice which was initiated in 1984 in UKCC. The objective of the project was to determine the training and education necessary for the professional practice of nursing, midwifery and health visiting, while taking into account the needs of the 1990s and beyond (Potgieter 1992:58).

The brief overview of nurse training provided below will review the background and circumstances out of which nurse training historically arose.

2.2   HISTORICAL OVERVIEW OF NURSE TRAINING IN SOUTH AFRICA

This short historical overview focuses on what the training of nurses used to be like in South Africa. It also highlights some of the problems that beset and influence the integration of theory and practice.

Prior to 1900 and 1944, most nurse training took place on the job in what amounted to an apprenticeship system. According to the Bridgeman Report (1953), in Potgieter (1992:106), and Ferguson and Jinks (1994:688), the learning needs of the students were not given priority, and in countries such as South Africa, the U.S.A. and Britain, nurses learned almost everything they had to know by being tutored by more experienced and senior nurses in practical nursing situations.

By 1910 there was a serious shortages of nurses in South Africa. Most nurse training was carried out in hospitals where doctors gave lectures. Overworked matrons taught the students

(where they could) how to carry out specific procedures without explaining the principles behind what they were demonstrating. Very few lectures were offered, and lectures were scheduled for off-duty hours at a time when students were already expected to work between 84 and 102 hours per week (Potgieter 1992:141). Clinical instruction was given to nurses by more senior fellow students. The needs of the service were given priority over the learning needs of the students (Potgieter 1992:141).

When it was suggested that the training of nurses should place more emphasis on theory, another system of training, namely, the block-system of the 1940s was introduced in Great Britain (Ferguson & Jinks 1994:688). During this period when the block system was started, students were taught only theory in the classroom. In South Africa, the block system started in 1943 and students had to attend classes while on duty (Potgieter 1992:148). Students thus became more conversant with theory. While practical skills were still taught in the wards, lectures in lecture rooms encouraged rote learning. Because students at this time were never exposed to problem-solving situations, they were never taught how to deal with the kind of unique problems which patients have (Ferguson & Jinks 1994:688). The block system led to an artificial separation of theory and practice because students would alternate two months in the classroom with weeks of practical experience in a hospital ward (Potgieter 1992:148).

Because this separation of theory and practice led to further problems of integrating theory and practice in Great Britain, alternative systems such as, for example, the modular system, were introduced in the 1970s. Alexander (1983), in Ferguson and Jinks (1994:688), was of the opinion that the modular system failed to promote an optimal degree of theory and practice because tutors had little contact with students in practical nursing situations and the sheer load of theory that had to be mastered allowed no time to make any other arrangements.

In South Africa the South African Nursing Council made a serious attempt to promote an effective integration of theory and practice when they published a new regulation for the new course that began in November 1969. This course was designed to integrate training for

course that began in November 1969. This course was designed to integrate training for general nursing and midwifery for three and half years – thereby alleviating the perennial shortage of nurses and avoiding any duplication of lectures in the nursing curriculum. Its purpose was therefore to ensure the logical integration of anatomy, physiology, nursing science and midwifery in the course. It was hoped that this improved course would prepare the nurse for her expanded role in preventive, advanced curative and rehabilitative services (Potgieter 1992:164).

Despite the introduction of the above-mentioned course, the integration of theory and practice continued to be problematic because nurse training was controlled by authorities who gave preference to service needs. The long-term needs of students were ignored and they continued to be misused predominantly as workers (Potgieter 1992:166). The integrated course, which was introduced in 1969, only integrated general nursing and midwifery. The problem with this course was therefore that it did not integrate all four of the basic disciplines, namely general nursing, midwifery, community and psychiatry, to provide for the comprehensive health needs of the community (Potgieter 1992:166).

The next attempt to remedy this situation occurred when the South African Nursing Council introduced the comprehensive course of 1985. The aim of *this* course was to streamline nursing education so that it fitted into the tertiary education system (colleges, technicons and universities) of South Africa. This would then be in line with similar developments which had occurred in the United Kingdom (see Ntombela, Mzimela, Mhlongo and Mashaba 1996:13). The introduction of this course was based on the recommendations of the Van Wyk, De Vries and De Lange Commissions. The Van Wyk and De Vries Commission in 1974 suggested that nursing colleges should be affiliated with universities in the same way that teachers colleges were (Potgieter 1992:167). The De Lange Commission indicated that if nursing wanted to enter the realm of formal tertiary education, it had to move from hospital-based training to colleges, technicons and universities so that nursing would qualify as a profession (Potgieter 1992:168).

A new course for basic training began in 1985 with the new diploma for the education and training of candidates as nurse (general, psychiatric and community) and midwife – a process that would lead to registration in terms of Regulation 425 of 22 February 1985, as amended. With this course, the South African Nursing Council made a significant breakthrough in nurse training because nursing colleges became autonomous institutions and the recommendations of the Van Wyk De Vries Commission were put into practice (Potgieter 1992:169). Ntombela and others (1996:13) have shown that this course was not without its defects, the main of which was the poor clinical performance of the recently qualified professional nurses. Once again this was attributable to the poor integration between theory and practice. The continuance of this problem caused a decline in the standards of practical nursing care.

Nursing deals with the patient as a human being in totality. Watson's definition of nursing postulates that nursing is holistic and that nursing is care of a human being's mind, body and soul. Nursing should strive to create a high degree of harmony within the patient's self so that he or she may find within the self those healing powers that increase self-knowledge and promote self-healing (George 1995:319). According to Watson's theory, caring is the essence of nursing. Nursing education itself moved from the explanatory theories of behaviourism to cognitive and humanistic approaches precisely in order to be congruent with the values of caring. (Higgins 1996:134 and Abusaard 1993:288) regard nursing as both an art and science: that is, a profession and discipline. The profession focuses on the quality of care rendered and the discipline focuses on human responses to actual and potential health problems. Once again this suggests that an integration of theory and practice is essential to nursing.

Cust (1995:280) maintains that nurse training had to shift from a behaviouristic approach which encouraged rote learning to a cognitive approach which emphasised learning as an activity which required students actively to accept responsibility

and make decisions. This shift enables the effective integration of theory and practice. What follows is a description of how nurse training shifted from behaviouristic to cognitive and humanistic approaches.

2.3 THE SHIFT IN NURSE TRAINING FROM BEHAVIORISTIC APPROACHES TO COGNITIVE AND HUMANISTIC APPROACHES

Behaviourism is a reductionist approach which emphasises the importance of associations between a stimulus and a response (Quinn 1995:8). Behaviourism regards human beings as passive recipients of information who will make automatic responses when presented with the appropriate stimuli (Quinn 1995:95). Behaviourism is not the best theoretical model on which to base a course in which nurses or student nurses are actively encouraged to be responsibly self-actualising in decision-making, problem-solving and critical thinking. Because students cannot realistically reflect on activities that they perform without considering *why* they perform them, such a practice becomes a serious obstacle to the effective integration of theory and practice. It was difficulties such as these which led course developers to institute an approach to nursing and training which disregarded behaviourism and favoured cognitive and humanistic approaches.

The humanistic approach, according to Quinn (1995:103), defines students as unique beings who have great potential for learning but who vary significantly in their learning styles. The teacher's role is to facilitate the *process* of learning and to give students themselves more responsibility for the success and outcome of their learning processes. Quinn (1995:103) postulated that an accommodation of the different learning styles of students as well as an emphasis on a philosophically holistic view of human beings would enhance the integration of theory and practice.

Cognitive approaches view learning as an active process of construction in which learners strive for understanding and competence on the basis of their personal experience

(Cust 1995: 280). For the purposes of this study, the researcher will look closely at Kolb's Experiential Learning Theory because Kolb's cycle of experiential learning played a significant role in inspiring systems in which theory and practice were successfully integrated.

2.3.1 A summary of Kolb's Experiential Learning Theory.

Kolb is acknowledged as the founder of experiential learning theory. The cycle which Kolb designed, according to Mc Caugherty (1992:31), attempts to link theory and practice. Since nursing is viewed as both an art and science, the application of Kolb's theory is important for the central problem which the researcher defined for this study, namely, the finding of a solution to the problem of how to integrate theory with practice.

A brief description of Kolb's Experiential Learning Theory has already been given. The whole cycle referred to in the theory explains how a student becomes competent in performing a skill after undergoing a series of events. In this chapter, Kolb's cycle will be reviewed for the light which it sheds on the integration of theory and practice.

Kolb, in Mulligan and Colin (1992:51), defines experiential learning as "the process whereby knowledge is created through the transformation of experience". This transformation of experience is necessary if the learner is to gain the requisite insight and skills needed to integrate theory into practice. In the course of such a process, the learner uses the theory which she has been taught, reflects on it, conceptualises whatever problems present themselves, and then implements her knowledge in the clinical situation.

Kolb (1984:51) described the process of experiential learning as being composed of a cycle (this is indicated by the sketch on the following page).

**Concrete experience
(practical knowledge)**

- Role play
- Simulation
- Case studies
- Demonstration

**Active experimentation
(practical knowledge)**
- Allocation in clinical areas
- Appliction of principles of problem-solving
- Demonstration

**Reflective observation
(theoretical knowledge)**

- Case study
- Problem-solving
- Use of community resources

**Abstract conceptualization
(theoretical knowledge)**

- Small group discussion
- Lecture
- Studying viewpoints
- Identifying questions

Figure 2.1
Kolb's learning cycle and applicable teaching strategies

According to Kolb's cycle, learning begins with immediate concrete experiences (CE). These are enhanced by teaching strategies such as role play, simulation and case study, which provide the basis for reflective observation (RO). Reflective observation is enhanced by teaching strategies such as case studies, problem solving and use of community resources. The subsequent construction of a theoretical explanation for these experiences result in abstract conceptualisation (AC), which is enhanced by teaching strategies such as small group discussions, lectures, studying various viewpoints and soliciting questions from students. This explanation will then be used by the student in other situations. This is called active experimentation (AE), and it is enhanced by demonstrations, allocation to clinical situations and the application of principles of problem solving. These actions then lead to even further (new) concrete experiences, and so the cycle continues (Laschinger & MacMaster 1992:258). When students use knowledge which has been experienced and conceptualised in new situations, they are actively using or experimenting with the acquired knowledge. When this happens as it should, students are engaged in integrating theory into practice.

While (1991:441) and Hodges (1988:341) indicate that learners must be able to involve themselves fully in new experiences and must be able to observe and reflect upon these experiences from many perspectives, they must also be able to create concepts that will integrate their observation into logical explanations so that they will be able to use the knowledge which they have gained to solve problems and make decisions.

O   **Concrete Experiences**

Kolb's cycle is ideal for nursing because concrete experiences are used to reflect on practical experience as when, for example, clinical skills are demonstrated in practice. Concrete experiences involve one more in practical situations than does thinking. Nyatanga's model of experiential taxonomy explains that concrete experiences develop through exposure to and participation in the situation (Nyatanga 1989:27). The use of the teaching strategies of

simulation, role play and case studies enhance the development of concrete experiences (Van Aswegen & Van Niekerk 1993: 38) – as is indicated in figure 2.1.

Because students are required to immerse themselves completely and without bias in new experiences, the onus lies on them to take full responsibility for their own learning. They have to take action and be engaged through all their senses (Holbert and Thomas 1988:30). According to Burnard (1995:37), students should practise skills because such practice enhances the development of procedural and experiential knowledge.

O   **Reflective Observation**

Reflective observation means that students participate in situations and are able to reflect back their knowledge in concrete experiences. The theoretical knowledge which they gain encourages reflective observation. Students should be able to observe and reflect on these experiences from various perspectives. If effective learning is to take place, students must be able to reflect on what they do and undertake some sort of critical appraisal of what they find (Holbert & Thomas 1988:30). Reflection is necessary if a student is to develop and use acquired knowledge in the clinical situation. Teaching strategies (such as, for example, case studies, problem solving, and visiting community resources – all indicated in figure 2.1) may be used could enhance reflective observation among students

O   **Abstract Conceptualisation**

At this stage of Kolb's cycle, students should be able to learn and apply what they have mastered to date. They should be able to create concepts, generate ideas and perceive connections and relationships. This would then enable them to integrate their observations into a logically sound theory – and this is nothing other than integrating theory with practice. Students use the theory they have acquired to make creative decisions and to solve problems through active participation. Theoretical and propositional knowledge supply the foundation

for abstract conceptualisation (Holbert & Thomas 1988:31; Burnard 1995:37). Teaching strategies such as small group discussions and lectures enhance the processes of abstract conceptualisation (see figure 2.1).

O   **Active Experimentation**

Active experimentation refers to the utilisation of theoretical and clinical knowledge in active experimentation. This necessitates creative decision making and problem solving and so leads to the integration of theory and practice. This stage focuses on the practical application of knowledge (procedural knowledge) and actual performance of nursing skills (Holbert & Thomas 1988:31). Nyatanga (1989:27) points out that this can only occur through identification, internalisation and dissemination. Active experimentation is influenced by the allocation of students to clinical situations. The application of the principles of problem solving can be practised by the student at the same time that she gains learning experiences.

Holbert and Thomas (1988:31) emphasised that there should be a balance between theoretical and practical learning if theory and practice are to be effectively integrated. This is an important point to remember when teaching students both theory and practice because a knowledge of theory complements what is learned in clinical practice.

Kolb's cycle of experiential learning has been referred to in this chapter because of the emphasis on how theoretical knowledge influences clinical performance.

There are certain issues which are related to the possibility or effectiveness of integration of theory and practice. The discussion that follows will be about these issues, and reference will be made to Kolb's cycle of experiential learning (i.e. how students develop from concrete experiences to active experimentation by integrating theory and practice).

2.4 ISSUES RELATING TO THE INTEGRATION OF THEORY AND PRACTICE

2.4.1 Introduction

After extensive reading, the researcher identified the following matters from the literature that referred to the integration of theory and practice, both abroad and in South Africa.

2.4.2 Learning styles

Learning styles are defined as individual differences in students' approaches to study (Quinn 1995:373). Because human beings are unique, their learning styles differ. It is necessary to pay attention to the varying learning styles of individual students because the learning style influences adaptation to learning and therefore plays an important role in the effective integration of theory and practice. Ferguson (1992), in Jacono and Jacono (1994:287), supported the view that students learning styles are important factors to consider in the design of teaching strategies for the effective integration of theory and practice. The teaching strategies that are applied may be congruent or incongruent with the adaptive competencies required for the effective integration of theory and practice (Hodges 1988:343).

According to Hodges (1988:342), nursing requires a desire to serve human beings and possess scientific knowledge. Because of this, an emphasis on different learning styles in ward-based practice is important to ensure an effective integration of theory and practice. Tutors must therefore acknowledge individual differences and accommodate different learning styles – which is exactly what Kolb's experiential learning theory suggests. Should the tutor fail, problems in integrating theory and practice might occur. For the purposes of this study, the researcher will describe the following learning styles.

2.4.2.1   Kolb's four learning styles

Kolb, in Van Rensburg (1995:23), defines learning styles as adaptive orientations that achieve stability through consistent patterns of transactions with the world. Kolb, in Laschinger (1990:986), explains the four learning styles in his model of experiential learning as follows:

O   **Divergent Learning Style**

This learning style is demonstrated by students who are good in concrete experiences and reflective observation. Divergers are more sensitive to peoples' feelings and usually enter into professions in which they can serve people. They are sensitive to values, listen with an open mind, gather information and image implications of ambiguous situations (Laschinger 1990:983). The teaching strategies that benefit divergers are group discussions and brainstorming sessions.

O   **Accommodative Learning Style**

This learning style is demonstrated by students who are good in active experimentation and concrete experience. Accommodators are active learners because they are good at carrying out plans and getting things done. They are people-oriented; they see and exploit opportunities, and they are committed to meeting objectives. They rely on other people for information rather than using their own analytical ability. They are more impatient and bold than other types. The teaching strategy which benefit accommodators is problem solving (Laschinger 1990:983).

O   **Assimilative Learning Style**

This learning style is demonstrated by students who are good at abstract conceptualisation

and reflective observation. Assimilators are good at theory building and inductive reasoning. They are less people-oriented and less practical than others. They are also good at designing experiments, analysing quantitative data and organising information (Laschinger & Boss 1984:376). The teaching strategies which benefit assimilators are formal lectures, seminars and the writing of papers (Hodges 1988: 344).

O   **Convergent Learning Style**

This learning style refers to people who are good at abstract conceptualisation and active experimentation. They are good at applying theory to practical situations. They are less people-oriented (Laschinger & Boss 1984:377) Convergers are people who are good at problem solving, making decisions, setting goals, choosing the best solution and experimenting with new ideas. Their preferred teaching strategies will obviously be problem solving and demonstration.

It is obvious that the knowledge of how students learn (learning styles) will be useful in the selection of the different teaching-learning strategies which are indicated by Laschinger and Boss (1984:380). Thus, for example, concrete learners will cope best in small group discussions, in role play and from audio-visual simulations, in which they will have direct personal encounters.

By accommodating different learning styles in the teaching situation, tutors will enable individualised learning. It is therefore important for the tutor to use as great a variety of teaching strategies as possible to accommodate the different learning styles of students. This alone will facilitate the process of integration of theory and practice.

2.4.2.2 Other learning styles: field dependent and field independent

According to Quinn (1995:373), *field dependent* and *field independent* refer to ways in which

individuals perceive and order the world around them. Some see patterns as wholes while others focus on particular parts. Field dependent learners need structured materials and may have difficulty in reorganising materials already organised in another way. They need clear instructions on how to solve problems, are better at remembering social information and are likely to work in social careers such as psychiatric nursing (Quinn1995:374).

Field independent learners impose their own structure on material and reorganise it. They are able to solve problems without guidance, may need assistance with social information and may prefer to work in science-orientated specialities such as surgical nursing (Quinn 1995: 374).

Learning styles are not the only factors that influence the integration of theory and practice Other factors that play a significant role will now be reviewed.

2.4.3 Curriculum

Kerr, in Quinn (1995:268), defines "the curriculum" as an attempt to communicate the essential principles and features of an educational proposal in such a form that is open to critical scrutiny and capable of effective translation into practice. Its planning rests on, inter alia, the mission, the philosophy and the objectives. According to Elkan and Robinson (1993:296), there is a possibility that theory might be overemphasised should the curriculum concentrate on holistic care.

The curriculum only contributes to problems of integrating theory and practice if it does not address all health problems (all diseases) or if it does not clearly indicate the pathway to practice. When students are exposed to such conditions for the first time with patients, this becomes a problem (Mc Caugherty 1991:540).Because the curriculum should accommodate the changing nature of a society and its emergent themes, it cannot exist in isolation. A rigid curriculum which is not community- and problem-based will affect the integration of theory

and practice because it will fail to address the needs of the community at large. A curriculum therefore should address all aspects of nursing care including promotion, prevention, curative and rehabilitation.

Chun-Heung and French (1997:458) indicated that if the curriculum introduces a too ideal theoretical content which is irrelevant to the actual clinical practice, it will pose problems for integrating theory and practice. If the curriculum is therefore theory-orientated and not theory-practice related, students and tutors will have difficulty in theory-practice integration.

2.4.4 Teaching

O   Strategies

Kolb's notion of experiential learning theory suggests that teaching strategies which stimulate creative thinking and independent decision making offer conceptualisation and reflection, as, for example, in case studies, role plays, simulations, small group discussion and problem-based teaching. These teaching strategies stimulate an effective integration of theory and practice and must be part of the curriculum planning.

Mc Caugherty (1991:1061) states that lectures only provide abstract communication which deals with the general problems of all patients suffering from a particular condition, and that this will cause problems for students as they try to apply knowledge in the real situation – particularly if tutors use the teaching strategies which do not accommodate the uniqueness of individuals. Yassim (1994 :183) states that the theory that is presented only by means of formal lectures is too idealistic, rigid and impractical, and that this makes it difficult for students to integrate theory with practice.

Cust (1995:281) state that teaching strategies which encourage rote learning lead to a poor integration of theory and practice because students are not able to reflect on previous

experiences. Teachers should find simpler situations such as adducing relevant examples. Practical situation encourages integration of theory and practice and teachers should use teaching strategies which make the situation as real as possible. This will stimulate reflection on past experiences and enhance problem solving skills (Malek 1988:34).

Quinn (1995:183) states that clinical teaching strategies should stimulate critical thinking and judgement by allowing students to ask questions and encouraging them to take responsibility for their own learning. Quinn (1995:183) states that students should be involved in the clinical situation through the observation of new procedures, ward rounds, the fostering of team spirit and by peer teaching.

O   **Objectives**

The use of behavioural objectives to guide the planning and selection of most learning experiences for both theoretical and clinical teaching is encouraged. Tyler, in Malek (1988:34), supports the use of objectives in both theoretical and clinical teaching.

O   **Timetable**

Treacy, in Ferguson and Jinks (1994:689), states that a heavily loaded daily timetable combined with a formal teaching style served to increase the problems of integration of theory and practice because students were being bombarded with too much information – a fact which only encouraged rote learning without reflection on past experiences. This means that the teaching failed to accommodate the students' reality. It also failed to take into account their individual learning styles.

2.4.5   Clinical evaluation

According to While (1991:450), clinical evaluation still poses problems of uniformity,

consistency and fairness in the measurement of behavioural skills. This difficulty is further worsened by the reality of the ward situation, which is very different from what is portrayed in the book or presented in formal lessons. While (1991:450) states that necessary clinical skills vary from occasion to occasion and depend on the different needs of patients and clients.

Clinical evaluations elicit a great deal of stress in students because they have had little opportunity to practise. Because the examination format is usually so completely different from the usual practice of nursing, students encounter difficulties when trying to integrate theory and practice during evaluation (Chun-Heung and French 1997:459). Since they have apparently not been taught to do so, they cannot do it when they are being evaluated.

A study done by Lowarie (1990:61) into the nursing student's perception of clinical learning experiences revealed that nursing students obtain insufficient feedback about their performance in their clinical placements. This affects their ability to integrate theory and practice as students would simply not know the exact areas in which they would have to improve. While (1991:450) states that students are allocated to clinical placements for limited periods of time because of the number of hours of experience in each clinical area are stipulated by R425 of 22 February 1985, as amended. When students are still busy adjusting to their new environment, they are suddenly allocated to *other* placements. Thus, when they are evaluated, they cannot relate theory to practice.

2.4.6   Accompaniment

Accompaniment, as defined in chapter 1, refers to the directed assistance and support which is extended to a student by a registered nurse or registered midwife with the aim of developing a competent independent practitioner (SANC:7). Accompaniment is indispensable in all teaching situations because it includes the guidance, supervision and

teaching which takes place in the clinical learning area. The purpose of accompaniment is to ensure that objectives are met and that the effective integration of theory into practice takes place. The South African Nursing Council emphasises the need for tutors to accompany students in their clinical learning environment and to assist them to apply theory effectively in practice.

Although accompaniment is important for the effective integration of theory and practice, Garbett (1995:77) highlighted the problems related to accompaniment as follows:

- Classroom tutors feel as if they are visitors in the ward. Because of this they do not have any formal responsibility or authority and cannot contribute effectively to any matter related to students. This hampers the effective integration of theory and practice.

- Professional nurses (ward sisters) regard tutors as people who are doing supervisory work and who are assessing how and what they teach students. This gives rise to tensions and therefore affects how effectively tutors can guide students.

Ferguson and Jinks (1994:688) stated that the infrequent visits of tutors to clinical situations affects their knowledge of patients and hampers their effectiveness in guiding students. Tutors fail to do clinical supervision because of:

- lack of time
- a lack of control in the clinical area
- anxiety caused by the less predictable type of work which is indicated by Jones in Ferguson and Jinks (1994:688).

Other researchers such as Fawcett and McQueen (1994:266), found that tutors encounter problems with student accompaniment because they have been isolated from ward work. They therefore lack clinical skills and are unfamiliar with ward layout, practices and

documentation. They also lack confidence because they feel like outsiders in the clinical situation and this hampers clinical teaching – which once again results in a poor integration of theory and practice.

Wilson and Startup (1991:1479) state that they found that service nurses regard tutors as people who teach students an *ideal* form of care – but not realistic or practical care. It is also true that tutors may be clinically outdated or unaware of various clinical constraints. The integration of theory and practice may be hampered by an emphasis on 'ideal' care.

A study done by Jones, in Bailie (1994:151), indicated that tutors gave clinical teaching a low priority. Thus, even if they do practise accompaniment, they do not participate in direct patient care giving and this once again hampers the integration of theory and practice. Bellinger, in Bailie (1994:151), and Fawcett and McQueen (1994:268), state that clinical teaching is stressful and that tutors are not given practical support in the form of (say) fewer classes to teach and less responsibility. This in turn makes tutors reluctant to teach. The research conducted by Bailie (1994:156) identified the following factors which hinder clinical accompaniment:

- A lack of support from clinical staff makes tutors feel alienated while trying to carry out clinical teaching (this study supports the previous author on this point).
- Tutors lack of clinical confidence if they are not up to date with the changes which are taking place in the clinical area. Their lack of confidence in teaching clinical skills will make them lose interest in accompaniment and this state of affairs will increase problems of integration of theory and practice.

2.4.7 Clinical situations to which students are allocated

The whole aim of this investigation is to determine whether theory and practice are integrated in the clinical situations. Some authors have identified the clinical situations to which

students are allocated as causes for either good integration or poor integration of theory and practice. Exposure to real situations can stimulate the development of concrete experiences. This will allow students to reflect and be able to integrate theory and practice effectively (Rafferty, Allcock & Lathlean 1992:686).

According to Orton (1981), in Wilson and Startup (1991:1479), the ward situation is the primary forum in which students learn. Ward sisters should be committed to teaching and take learner's needs into consideration. By doing this, they will enhance an effective integration of theory and practice.

Gibbon and Kendrick (1996:52) state that the number of students which are allocated to a clinical area should be controlled so as to avoid the kind of overcrowding that makes teaching and learning environment ineffective. If a group of students is too large, this will hamper an effective integration of theory and practice because teaching and supervision will then be practically impossible.

The problems of the integration of theory and practice are further aggravated by professional nurses who are not interested in teaching because they are not adequately prepared for the teaching role (Fretwell & Farnish, in Garbett 1995:76). According to Lathlean (1992:238), a lack of experience and a lack of confidence in the teaching ability of ward sisters exacerbates the problem of how to integrate theory and practice.

Good staff relationships and a favourable ward climate are essential for effective learning and the effective integration of theory and practice. This has been proved by Fretwell (1980), in Wilson and Startup (1991:1479). An approachable and supportive registered nurse will enhance effective learning for all students.

Students receive very little clinical supervision from either tutors and ward sisters because a lot of teaching is delegated to ward staff who are already overburdened. These ward staff

therefore understandably give greater priority to their workload rather than to the teaching of students. Most researchers, notably Ferguson and Jinks (1994:688), Lathlean (1992:236) and McCaugherty (1991:1061) supported this assertion.

What usually happens is that basic care is delegated to a lower category of staff (such as nursing auxiliaries). The result of this is that students frequently learn from a nursing auxiliary while the senior staff do administrative work. Teaching is therefore done by people who do not have sufficient theoretical knowledge to link the theory to practice (Lee & French 1997:458-459).

In self-defence, students learn to work too quickly, look busy and do slap dash work without considering what their real learning needs may be. They want to be accepted in the ward environment as part of the work force and not as learners (Wilson & Startup 1991:1484). Those students who try to practise what they have been taught risk rejection by the ward staff because they might be too slow. Thus students to fail to practise what they have been taught (Ferguson & Jinks 1994:689).

According to Chun-Heung and French (1997:458), students spend most of their time doing routine work and menial tasks. Thus the time which students have to practise clinical learning experiences effectively is wasted, and this hampers the integration of theory and practice. Students simply do not have time to use their theory in the clinical situation because they are expected to do routine work.

Chun-Heung and French (1997:458) stress the fact that the heavy workload for students in clinical areas hampers their learning as they are expected to learn *after* finishing their work (at a time when they are already exhausted). Shortage of manpower also increases the workload on many students, thus reducing their time for clinical learning experiences (Chun-Heung & French 1997:459).

2.4.8   Educational preparation of staff

There is a need for specialisation among people who are involved in teaching of nursing students if the process of integration of theory and practice is to be enhanced. According to Gibbon and Kendrick (1996:52), the importance of competency and accountability among nurse educators has been emphasised. They believe that these qualities can only be achieved if nurse educators have undergone a specific training (i.e. clinical specialisation in the subject that they are teaching). Fawcett and McQueen (1994:265) also affirm that tutors need expertise in some kind of clinical speciality if they are to facilitate clinical teaching and the effective integration of theory and practice.

During the initiation of Project 2000 (referred to above), Crotty (1993:35) emphasised that tutors needed to be clinically qualified in order to teach practica effectively and therefore effectively integrate theory and practice.

According to Norberg and Wickstrom (1990:40), too much is expected from tutors. They are expected to be both theoretical specialists as well as clinical experts – an impossible task because of constraints on time. This also therefore affects the integration of theory and practice. Slevin, in Ferguson and Jinks (1994:688), also questions the clinical credibility of tutors. Since they are fully involved in the theoretical field but lack experience in the clinical field, they contribute to the problem of theory-practice integration in the clinical teaching of nursing students.

Burke (1992:42) also questions the accountability and autonomy of tutors who specialise in a subject, and state that they are neither qualified nor confident enough to teach. Competence and confidence are needed if effective teaching and learning is to take place. Competence and confidence must exist before real autonomy and accountability can exist among tutors who, in turn, need to facilitate the integration of theory and practice.

2.4.9   The use of preceptors and mentors in the clinical areas

The terms used in the heading above have already been defined in chapter 1. Quinn (1995: 188) delineates the differences between the terms *mentor* and *preceptor*. A mentor is more concerned with building close personal relationships with students, thereby creating a long-term relationship which lasts as long as students are in training. A preceptor, in contrast, is concerned with the teaching, learning and role-modelling aspects of the relationship. This latter relationship is therefore short-lived and functional and serves a specific purpose.

According to Brennan and Williams (1993:35), the two terms are used interchangeably – although preceptorship is more concerned with teaching and learning on a day-to-day basis and the assessment of the ability to conduct primary practice, that constitutes clinical teaching. Clinical teaching is the means by which student nurses learn to apply the theory of nursing so that an integration of theoretical knowledge and practical skills in the clinical situation becomes the art and science of nursing (Mellish, Brink & Paton 1998:207).

Preceptorship was instituted for the following reasons:

- It was designed to provide clinical guidance of student nurses and so facilitate the integration of theory and practice.
- It was instituted in the late 1960s and early 1970s in the U.S.A. to guide newly qualified nurses.
- It was brought in the United Kingdom to provide clinical guidance for students who were following the Project 2000 programme.
- The concept of preceptorship was introduced in South Africa during the late 1980s to provide clinical guidance for students who were following the comprehensive course (Brenan and Williams 1993:25-36).

According to Carey & Campbell (1994:39-42), preceptorship also gave rise to problems

because clinical tutors who are preceptors had no control over what was taught in theory. They made very little input into the curriculum. This, combined with the fact that they have the status of "visitors" in the clinical areas, gives them no power to influence standards of nursing practice. All those factors had an impact on the clinical teaching of students and the application of theoretical content to practice.

Brennan and Williams (1993:36) identified some other problems which were related to preceptors – such as their unreasonable expectations about the student levels of knowledge and performance. Lathlean (1992), in Carey & Campbell (1994:43), stated that preceptors were dissatisfied about their low status and ill-defined responsibilities. This affected their teaching capacity, which in turn affected their performance and contributed towards a poor integration of theory and practice.

According to Fawcett and McQueen (1994:265), the use of preceptors led to a separation between those who teach theory, and this encouraged the theoretical tutors to completely withdraw from the clinical area. This then gave rise to the problem of who is accountable and responsible for monitoring both standards of learning and the quality of care rendered by students. This confusion resulted in poor supervision being given to students in clinical areas.

2.4.10 The use of workbooks in the clinical area

Workbooks are a form of programmed instruction, which serve as a means for guiding students to integrate theory and practice. Jasper (1995:446) refers to workbooks as teaching strategy to support student-centred learning in nurse education. Workbooks should combine the strategy of reflection on prior knowledge and experience with an active identification of learning. These teaching tools should enable students to plan their time with maximum efficiency and have a clear idea of what they need to learn and master.

Mellish, Brink and Paton (1998:122) state that workbooks are carefully designed teaching

tools that students should complete while working in the clinical situation before submitting them for evaluation, comments, marks or symbols.

While workbooks are being completed, preceptors should act as facilitators and assist students. By doing this, they will build a relationship of trust and will facilitate the process of experiential learning which is described in Kolb's experiential learning theory (Jasper 1995: 447). If students are allowed to complete those workbooks without any supervision, they may be tempted to be less than honest. If this happened, they would not benefit at all from the exercise. This in turn would lead to a failure to achieve learning objectives and a failure to apply theory to practice.

The proper use of workbooks presupposes a level of maturity among students and a capacity to take responsibility for their learning in terms of organising their time and achieving their objectives. Workbooks make allowance for the different learning styles of students – a fact that is important for continuous and final evaluation.

2.4.11 Time spent in the clinical and theoretical situations

Studies done by Gott, in Yassim (1994:184), indicate that if theoretical learning takes place without application in practice, learning becomes distorted and causes students to encounter problems when they are expected to integrate theory and practice. While (1991:451) stated that students should be allowed to spend a longer time in the clinical area so they could build confidence in what they were practising.

Rafferty, in Yassim (1994:184), supports the idea that theory should always be applied and that tutors should not keep students in a theoretical setting for a long time without permitting them the opportunity to apply theory into practice. Students may even forget the theoretical content that has been taught. If too little time is spent in the clinical area, students will have problems with reflecting on the theoretical content that they have been taught because they

would have forgotten it.

The South African Nursing Council has laid down the minimum requirements for clinical practice for general nursing, psychiatric and community (3000 hours of combined clinical hours), with 1000 hours for midwifery. The period allocated is important for ensuring an effective integration of theory and practice (SANC Guidelines 1994:21).

2.4.12 Demonstration room/clinical nursing laboratory

According to Stevenson (1996:55), trainees should facilitate the process of integrating theory and practice by learning to perform practical skills before they encounter real patients. He further suggests that colleges should revive training rooms as skills laboratory so that students can practise their skills. While this makes conditions safer for patients, it allows students to have concrete experiences. In such a setting, students may be given problems which have been set up by a tutor – problems which are similar to what they might experience in clinical situations. Colleges should therefore have enough facilities to enable the learning of skills, facilities such as, for example, the use of video cassettes for learning skills such as the physical examination of patients. This would encourage a uniformity in the teaching of clinical skills and hence an effective integration of theory and practice.

Burnard (1995:37) supports the use of a demonstration room to enhance experiential learning. He recommends that students should be involved in learning by using all the senses that is practising to perform a skill active experimentation e.g. cardio-pulmonary resuscitation because such procedures cannot be performed on patients.

The South African Nursing Council encourages the use of clinical nursing laboratories. The laboratory should be arranged so that students can practise the full range of learning opportunities that is required by the curriculum. Each laboratory should have all the facilities that students need (SANC:5).

2.4.13 Conflict situations

Bendall (1995), in Ferguson and Jinks (1994:689), and Garbett (1995:77), agree that the conflicting value systems of service and education hamper an effective integration of theory and practice because while the service focuses on a students' output as part of a working force which is often desperately short-staffed, nurse educators focus on the training needs of students and on their necessity to undergo many and varied learning experiences.

Ferguson and Jinks (1994:688) assert that the physical separation of nurse teachers and nurse practitioners, with one group of nurses involved in caring and another in teaching, also contributes to problems in integrating theory and practice. They describe this tension as creating "two opposing forces" between which students are left to struggle.

According to Gott (1982), in Lathlean (1992:238) the conflict between the bureaucratic values of the wards and professional values hampers effective integration of theory and practice. Nurse managers (on the whole) only want the work to be done and do not take the training needs of the students much into account (Lathlean 1992:237-238).

Lathlean (1992:239) further indicates that dividing the roles of clinical tutors and educators engendered conflict and that this affects the integration of theory and practice because the effective clinical learning of students is hampered.

Khadim and Wafer (1993:265) indicate that poor communication between the colleges and training schools about training matters has led to a poor integration of theory and practice.

According to the research findings of Norberg and Wickstrom (1990:40), relationships between training institutions and hospitals are estranged because while the clinical teacher screens herself from nursing practice in order to be able to theorise, tutors do not give themselves time for giving direct care to patients because they feel that that is the

themselves time for giving direct care to patients because they feel that that is the responsibility of professional nurses in the clinical setting. This leads to conflict which hampers an effective integration of theory and practice.

For the purpose of this study, attention will also be given to the theoretical and clinical teaching of family planning in health clinics in order to identify those problems which are encountered in integrating theory and practice.

2.5 REVIEW OF THEORETICAL AND CLINICAL TEACHING OF FAMILY PLANNING

Overpopulation, economic considerations and the health of the family are matters of concern in nursing. Students are taught about the theoretical and the practical aspects of family planning in community nursing science so that they will be able to address these problems.

There is a need for clinical specialisation in family planning so that tutors can effectively teach this subject. If this happens, it will beneficially influence the integration of theory and practice. The discussion that follows will provide a background to the reasons why family planning was chosen.

2.5.1 Reasons for choosing family planning

Overpopulation is becoming a serious problem in Third World countries (this may readily be seen in places such as the Northern Province). Widespread knowledge of family planning might help to reduce high birth rates.

Another global problem which the world is facing today is the prevalence of sexually transmitted diseases (STDs) such as the human-immunodeficiency virus (HIV) and its consequence, the acquired immune deficiency syndrome (AIDS), and cervical and breast

cancer. Knowledge about integrated comprehensive family planning services will help to combat such problems because the community nurse will be educated to recognise these problems. She will teach preventive measures to the community so that they can avoid unwanted pregnancies as well as STDs and HIV/AIDS. She will also facilitate PAP smears to detect cancer of the cervix and to teach breast self-examination. This means that the theoretical knowledge that students have will be applied in clinical situations.

Family planning services play a crucial role in the community in the Northern Province. Because the economy of the region is dependent upon the population, the effectiveness of methods, accessibility, availability and the user-friendliness of services are all of paramount importance. These services could all be effectively rendered by a competent nurse who is able to integrate theory and practice. There is a clear need for client-oriented, provider-efficient services (COPE).

According to statistics, the utilisation of family planning services in the northern region of the Northern Province is 15.5% percent per year, which is a very low annual percentage (ReHMIS Report 1996:68). This low rate of utilisation might be caused by ignorance about family planning because the services are available to everyone. The question which arises is "Are nurses equipped and skilled enough to render these services effectively?"
It is the researcher's opinion that it is of paramount importance for students to be knowledgeable in both the theoretical and practical content if they hope to render effective services to the community. A lack of knowledge on the part of the service provider may cause women to be given methods without any explanation, for example, of the anticipated side effects or the hoped-for benefits of the method. It is also important that women be given opportunities to make their *own* choices by being giving enough information.

Sundari Ravindran (1993:32-33) notes that when women suffer from the adverse effects of one particular method, they are often given treatment for the adverse effects rather an alternative method. Thus the cause of the problem is not addressed. This has made women

reluctant to use the method. The source of the problem is not addressed and women continue to suffer from the adverse effects. This is a further challenge to those who direct the educational preparation of the nurse who will be expected to deal with the unique problems of her clients.

Because sex education is usually neglected for cultural reasons, serious STDs which remain untreated today may predispose a client to cancer of the cervix, HIV/AIDS and infertility. Clients are reluctant to use sterilisation as a method of family planning because of fear which is caused by a lack of knowledge (Sundari Ravindran 1993:34).

Cultural barriers have also had an impact on the use of family planning methods, for example:

- husbands disapprove of family planning because they think that it encourages promiscuity.
- women are not given the freedom to choose for themselves because males are the ones who decide whether a family planning method will be used or not (Sundari Ravindran 1993:34).

Family planning methods have also been inaccessible to adolescent because parents refuse children to use methods for cultural or religious reasons although national health policy allow clinics to render such services free of charge.

In spite of all the above-mentioned challenges, an up-to-date nurse will be able to deal with the problems of his/her clients and make family planning services accessible to the community. A well-trained nurse who is able to integrate theory and practice will be able to deal with whatever challenges arise.

Because the government has formulated definite policies with regard to family planning, this

made an impact on the curriculum and hence on the teaching of student nurses. A study of these policies should be included in the curriculum because it is essential that nurses be aware of their content.

2.6   POLICIES ABOUT FAMILY PLANNING

According to the International Conference on Population and Development (ICPD 1994:13), which was held in Cairo between 5 and 13 September 1994, family planning programmes must enable couples and individuals freely and responsibly to decide on the number of children that they would like to have and the spacing of such children. They should also have the information and means to do so: they should be able to make informed choices and utilise a full range of safe and effective methods. It is only informed individuals who can and will act responsibly in the light of their own needs and the needs of the communities of which they are a part.

In order to meet the requirements of the above-mentioned policy, it is necessary to:

●   integrate family planning with reproductive health programmes, make family planning affordable, acceptable and accessible to all who need those services, and also maintaining the confidentiality of each and every person concerned.

●   improve the quality of family planning services by giving advice, providing information, education, communication and counselling.

●   increase the participation and sharing of responsibility by men in the practice of family planning (ICPD 1994:32-33).

Mayhew (1996:343) states that family planning should be integrated with services which deal with mother and child health care, sexually transmitted diseases, HIV and AIDS, and that it should provide horizontal services in a comprehensive health care system which facilitates accessibility and good quality service.

The White Paper, in addition to what has been mentioned above, also declares that family planning should be based on a one-stop supermarket approach so as to ensure that such services are accessible to everyone (South Africa 1997:101).

SANC guidelines reflect the above-mentioned policy in that they require student nurses to have completed reproductive health by the end of fourth year level in order (this puts them in a position to provide the required one-stop supermarket service). Reproductive health includes the following topics:

- maternal and child health services including midwifery
- family planning services
- sexually transmitted diseases, HIV and AIDS.

What has been discussed above makes it clear that there exists a well-defined need to have well-trained nurses who will achieve these objectives effectively. The challenge is how best a student can integrate theory with practical content so as to be able to meet the needs of the community and the country. This also challenges people who are involved in the teaching of those students. Such people should be conversant with government and SANC policies, and they should have a comprehensive knowledge of family planning and maternal and child health services, sexually transmitted diseases and HIV/AIDS.

2.7 OVERVIEW OF PROBLEMS OF INTEGRATION OF THEORY AND PRACTICE

The literature has shown that the integration of theory and practice is a world-wide problem. It also shows that each country has applied its own solutions. Unfortunately, as one set of problems is attended to, another arises.

The researcher has shown how the United Kingdom introduced Project 2000, which made the nursing students more oriented towards theory than towards practice (Ferguson & Jinks 1994:688).

In the United Stated of America, newly graduated nurses experienced stress when they were expected to function independently. They attributed this stress to a lack of clinical experience, a lack of organisational skills and hence a failure to cope with the new situation. At this juncture, preceptors were made available to assist newly qualified nurses to cope with the demands of practice (Bjork 1995:9).

In South Africa, the comprehensive course which is based on R425 of 22 February 1985 (as amended) also gave rise to its own set of problems (see Ntombela, Mzimela, Mhlongo & Mashaba 1996:13). These researchers indicated that the clinical performance of nurses who had recently completed the comprehensive basic nursing course ranged from *satisfactory* through to *poor* to *never* or *not at all*. They concluded from their research findings that newly qualified nurses were minimally competent because their training was broad and composed of four (4) nursing specialities. It is not possible in the classroom to teach every contingency that might arise in the clinical situation. This means that more specific learning experiences should be planned in the clinical environment so that students will be enabled to integrate theory and practice.

2.8 PREVIOUSLY EMPLOYED RESEARCH DESIGNS

Several qualitative studies were undertaken to identify the students' feelings about and attitudes to integration of theory and practice. Such studies were, for example, conducted by Lauder (1994), McCaugherty (1991) and Windsor (1987).

Other research studies concentrated on the nurse teacher's clinical roles in trying to resolve problems in integrating theory and practice. These were conducted by Crotty (1993). A

twelve-year case study on the integration of theory and practice was conducted by Lorig and Gonzalez (1992). These studies only concentrated on the clinical role of the nurse teacher.

French (1991) studied the quality of nurse education in the 1980s. From the survey which he conducted, the following factors which hampered the integration of clinical teaching and theory were identified:

- Teaching institutions were plagued by poor working relationships, inadequate teaching and overworked staff.
- Patients were not given the priority they should have received.
- Tutors never visited wards for teaching.

Norberg and Wickstrom (1990) studied the problems that nurse teachers experience when they integrate theory and practice. A sample of 22 nurse teachers were tape-recorded in the context of semi-structured interviews. Some of the findings of this study were as follows:

- Relationships between the training schools and hospitals were problematic.
- The role of clinical teachers was problematic because nurse teachers should follow up on all nursing students throughout the period of their training in order to give them support in their personal development and provide individualised learning.
- A nurse teacher is expected to be a clinical expert and be able to function as a role model. This is a difficult task for most.

The studies of Norberg and Wickstrom (1990) only concentrated on tutors' views about the problems of integrating theory and practice. They ignored students – the very ones whom the situation affects. There thus also exists an urgent need for identifying the problems of students – rather than only those of tutors. Other studies have concentrated on newly qualified graduates – but not on students per se.

Wilson and Startup (1991) studied nurse socialisation, and issues and problems that arose out of the Project 2000. Students, tutors and preceptors were interviewed, and it was found that the ward environment played a major role in integrating theory and practice as is the primary source for clinical learning experiences. Netshandama-Funyufunyu (1997) studied the role of nurse managers in creating a clinical environment which is conducive to learning for nursing students. In this study it was stated that contact with teaching staff in the clinical area was minimal, that there were problems associated with accompaniment and that learning needs of students were not given preference.

There has been a great deal of literature which deals with the integration of theory and practice in other countries, as the researcher has indicated in this chapter. In South Africa not enough research has been done into the integration of theory and practice. In the northern region of the Northern Province, no such research has been done at all.

2.9 CONCLUSION

A historical background to nurse training has been included in the review to indicate that integration of theory and practice has long been a serious problem. Nursing has been defined in a certain way, and the influence which this definition has had on nurse training has been noted.

What has also been noted is that the training of nurses has been variously informed by behaviouristic approach, cognitive approaches and humanistic approaches, and that the patient has come in time to be regarded as an entity with his or her own particular psychological, social, religious and cultural beliefs. A summary of Kolb's experiential learning theory was used to explain cognitive approaches.

Issues relating to the integration of theory and practice were discussed by reference to

recurrent identifiable problems. The researcher conducted a review of related research studies which have been conducted to identify problems in integrating theory and practice was made.

CHAPTER 3

Research design

3.1 INTRODUCTION

The purpose of this chapter is to describe and justify a research design aimed at identifying the problems which nursing students encounter when integrating theory and practice in selected clinical nursing situations. Determining the appropriate design for the research requires a process of decision-making regarding data collection, data analysis, the sample and methods of reliability and validity. These are referred to collectively as the research design (Botes 1995:17) The goal of this study is to construct a strategic plan for the development of the curriculum, which might ensure an effective integration of theory and practice and so enhance the production of professional nurses who are competent, independent practitioners

The goal is reached by attaining the objectives of the study. For logical sequence, this chapter was organised according to phases of research which are implemented to attain the objectives of the study.

A summary of the illustration of phases has been given in the next page.
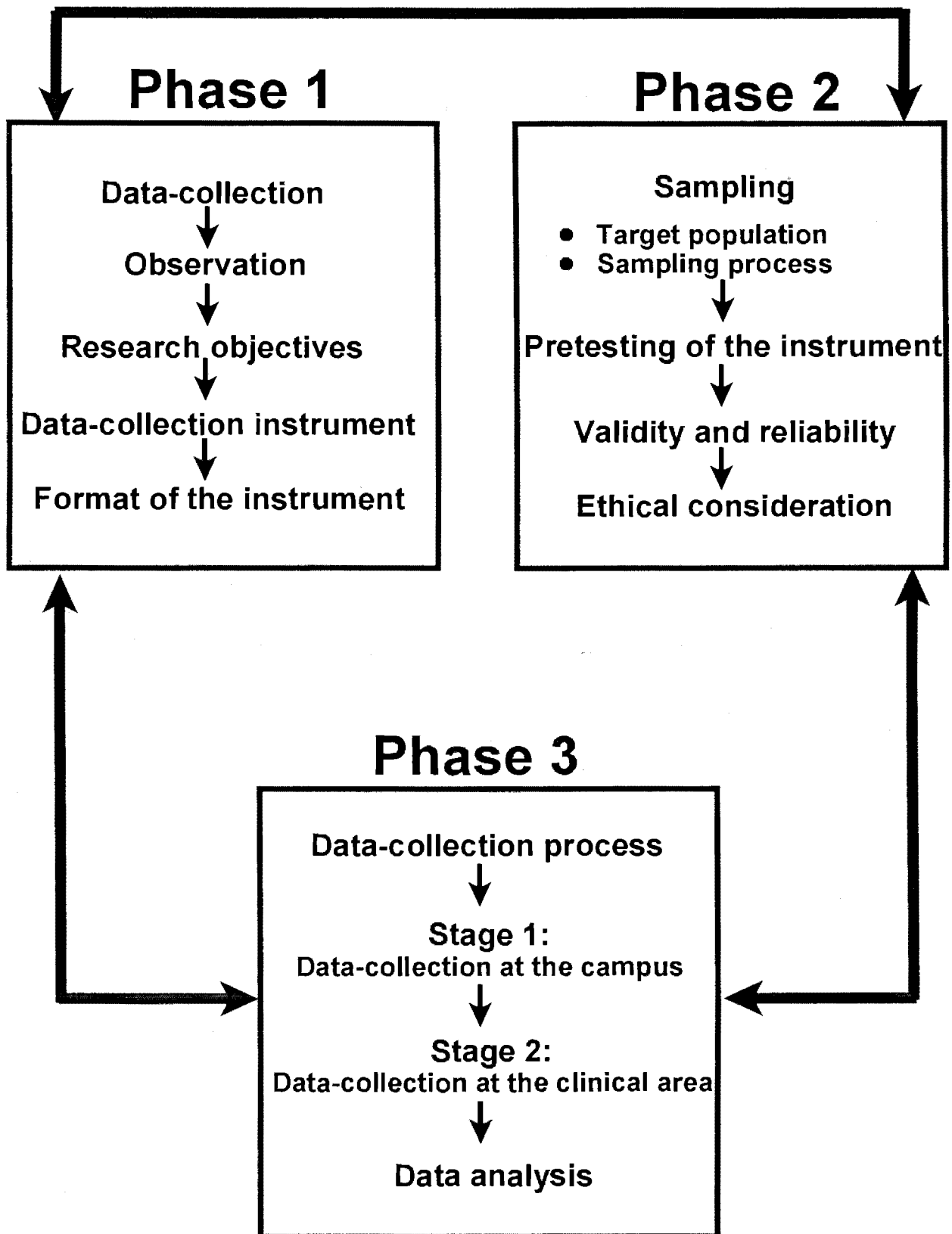
Figure 3.1
Phases of the research process

O   **Phase 1**

For the purposes of this study the first phase dealt with the data gathering methods as well as the research questions and objectives. In this phase the researcher elaborated on what would be looked at, as well as the objectives and questions which guided the researcher to identify problems of integration of theory and practice in selected nursing situations. The context of the study was the nursing campus and hospitals to which students were allocated during their clinical practice in the northern region of the Northern Province.

O   **Phase 2**

The second phase dealt with sampling and target population, pre-testing of the instrument, validity and reliability, and ethical issues. In phase two the researcher gave a detailed explanation of how sampling was done and the reasons for choosing the target group, how pre-testing of the instrument was done and how validity and the reliability of the instruments was ensured. This phase formed the foundation for the third phase, which is been described below.

O   **Phase 3**

The last phase described how the process of data collection and analysis was done. In phase three the researcher did not provide detailed information about analysis, but rather presented a summary of how it was done. Detailed information about the process of data collection was given. This served to explain how the researcher managed to get the information from the three hospitals as well as from the campus in the northern region. Chapter 4 will provide

detailed information about data analysis.

3.2   RESEARCH DESIGN AND METHOD

For the purpose of this study the research design may be described as non-experimental, naturalistic, empirical and descriptive (Polit & Hungler1995:640). A quantitative design was used to describe and interpret the results.

Within this design the following research concepts were used:

O   **Quantitative**

Quantitative study is defined as an objective, formal systematic process in which numerical data are used to quantify or measure phenomena and to produce findings (Carr 1994:716). It is value-free, based on objective reality, can be experienced with the senses, and uses hard statistical approaches – as indicated by Lo Biondo Wood and Haber (1990:256) and Hardey and Mulhall (1994:59).

In quantitative research such as this, the researcher is allowed to describe and interpret results from data gained during participant observation. The insight gained from this was used to describe the problems which students encounter whilst integrating theory in practice.

The researcher has identified the specific predictions about integrating theory and practice so that possible solutions and answers can be sought.

O **Non- Experimental**

The intention of the non-experimental strategy is to ensure that observations were made in natural settings and phenomena were observed as they occur. The main reason for a non-experimental research is to describe phenomena, and explore and explain the relationship between variables (Brink 1996:108).

The intention of this study was to observe the students while they were rendering family planning services to their clients. By doing this, the researcher hoped to be able to explain whether the students were practising what they had been taught in the theoretical environment. The non-experimental format and strategy allowed the researcher to compare theoretical teaching (curriculum) and the actual practice of each student as she attempted to identify and describe the problems which students encounter when integrating theory and practice in selected clinical nursing situations.

O **Empirical**

The empirical strategy is verified by observations made by the senses – as indicated by Treece and Treece (1986:115). The strategy is grounded in reality rather than in personal beliefs of the researcher (Polit and Hungler 1995:10).

The intention of this research was to audit the curriculum and analyse the content. The students were observed in the clinical area while they applied theory in practice and encountered problems that related to the integration of theory and practice. Statistical tests were used to ensure objectivity in identifying and describing problems of integration of

theory and practice.

O   **Naturalistic**

Polit and Hungler (1995:645) point out that a "naturalistic strategy" follows the natural path. Thus, for example, if one is working in a naturalistic setting, the researcher collects data at a place which is "natural" to those being studied (places such as, for example, workplace, homes and clinics). Because the purpose of the present naturalistic strategy was to observe how students interact with clients and how they apply theory in practice, the researcher did not change the venue to avoid the Hawthorne effect.

O   **Descriptive**

The research is descriptive because, as Brink and Wood (1994:101) explain, it is a process in which data were described in either words, tables, charts or pictures. Polit and Hungler (1995:640) define descriptive statistics as a tool that is used to describe and summarise data.

The purpose of the study was to describe as accurately as possible the problems which students encountered when attempting to integrate theory and practice. The description of existing problems and recommendations relating to those problems, were given. The research will benefit the nursing campus around in the northern region of the Northern Province.

While all these above-mentioned strategies were combined for the purpose of this study, it is also important to ensure that there is systematisation of the process of research. The discussion that follows would be the description of the phases to ensure systematisation.

3.3 PHASE ONE

Chapter 2 which is the literature review, formed the foundation on which to build the method and techniques for the research. Data collection instruments, which were based on the content in the literature review, were prepared. The purpose of phase one was to determine deficiencies or problems which students encountered while integrating theory and practice in selected clinical nursing situations.

Phase one have dealt with the objectives and questions which guided the study as well as the planning process for data collection. The quality of information collected will assist in helping to create professionals who are independent, creative thinkers and mature practitioners.

Phase one was organised in such a way as to answer the research questions. During this process, the methods and techniques of research were utilised. For the convenience of the reader the researcher restates the research questions below.

3.3.1 Research questions

The research was prepared to answer the following questions:
- What are the problems which students encounter when integrating theory and practice when rendering family planning services?
- Does the curriculum on family planning allow for an integration of theory and practice?
- What teaching strategies could enhance the effective integration of theory and practice in family planning?
- What problems arise out of current evaluation methods used in family planning?
- Does the degree of accompaniment in family planning ensure an effective integration of

theory and practice?

- Is the clinical situation for family planning conducive to an effective integration of theory and practice?

- Have those who teach family planning specialized in the course?

- Are there any preceptors/mentors who are prepared to teach family planning in the clinical area?

- Does the clinical laboratory have enough facilities for effective teaching of family planning in the class?

3.3.2 Research objectives

The objectives of the study are to:

- determine whether the curriculum for family planning allows for the integration of theory and practice

- identify teaching strategies that might enhance the integration of theory and practice during teaching of family planning

- identify the problems which arise out of current evaluation methods used in family planning

- determine whether there were any problems encountered during accompaniment of students when rendering family planning in the clinical area

- identify whether a lack of specialisation in the field of family planning could have a negative impact on teaching of nursing students

- determine whether the clinical situation for family planning was conducive to effective integration of theory and practice

- determine whether preceptors and mentors in family planning were utilized in such a way

as to ensure an effective integration of theory and practice

● determine whether the clinical laboratory was fully equipped with the necessary facilities for effective teaching of family planning.

3.3.3   DATA COLLECTION

Burns and Grove (1993:48) define data collection as the precise, systematic gathering of information relevant to the study. The structured observation technique will best address and answer the research questions. A detailed discussion about the use of this method follows below.

3.3.3.1   Observation

Observation is a method of data collection which utilises visual measures such as the systematic selection and recording of behaviour (Polit & Hungler 1995:301; Treece & Treece 1986:508). The process of observation is guided by pre-constructed observation schedules.

In this research both the curriculum and the clinical environment were studied and identified relevant ideas from the literature review. The researcher recorded all this on an observation schedule. The whole aim of this investigation was to determine whether theory and practice were being integrated in the clinical situations chosen for this study (the hospitals and/or clinics to which nursing students were allocated).

The teaching, evaluation and accompaniment of students doing family planning in their placement was investigated to find out whether the practical component of the curriculum

allows for an integration of theory and practice. Since the success of learning is heavily dependent on available facilities, the latter were also scrutinised by the researcher. Because teaching and learning involves people, the researcher observed both the teaching staff in the clinical areas and the learners, that is, the nursing students.

The researcher chose to use a structured observational method, namely two observation schedules (see Annexure B), which clearly identify what is to be observed and precisely define how the observations are to be made, recorded and coded. This is in line with the method suggested by Burns and Grove (1993:781).

First observation session was held to observe the curriculum on family planning at one of the nursing campuses in the Northern Province. The following schedule of questions, which were generated from information obtained from the literature review, were used to make guide the researcher's observations:

- Does the curriculum on family planning allow for subject integration (relating the topic of family planning to other related subjects such as the anatomy and physiology of the reproductive system of males and females, a knowledge of the pharmacological actions of drugs used in family planning), during teaching of both theory and practica?

- Is the curriculum comprehensive (i.e. does it include mother and child health care services, sexually transmitted diseases such as HIV and AIDS, and cancer of the breasts and cervix?

- Does the curriculum allow for education about cultural influences on family planning, value systems, ethical issues and legal issues related to family planning – as well as administration and management of a family planning clinic?

- Do the teaching strategies which are used provide for an integration of theory and practice by using small group discussion, demonstration, simulation, and role play in

both theory and the clinical setting?

- What evaluation methods and strategies are used to assess the degree of theory and practice integration?

- How are students accompanied? How is this done?

- Whether facilities are available in clinical learning environment (this includes human resources and equipment)?

- How are nursing staff prepared in both the theoretical and clinical environment?

- Was the demonstration room available for student use even during their off-duty time?

During the second observation session, the researcher examined the practical performance of students in different areas of clinical allocation, that is, in the hospitals and clinics to which they had been allocated for their clinical learning experiences. The researcher was assisted by one of the clinical tutors to observe the nursing students as they rendered family planning services to the clients preliminary to deciding whether they were able to relate the services they were offering to the theoretical content which they had learned. The same questions used in the first observation session were used to guide the second observation session.

The researcher used the covert participant method of data collection under the guise of performing clinical observation of student nurses. (The researcher is well-known as a tutor to the students.) Participant observation is a special form of observation in which researchers immerse themselves in the setting so that they can hear, see and experience the reality as participants do (Burns & Grove 1993:429).

Covert data collection means the collection of information without the participants' knowledge and without their consent (Polit & Hungler 1995:123). In this research,

participants were not given full information about what was happening – although they knew that the researcher was visiting the clinical area ostensibly to observe clinical facilities. If the students had been informed, they might have behaved differently from how they normally behave in the performance of their daily practice. It was therefore the researcher's deliberate intention to avoid the Hawthorne effect, which is explained by Brink (1996:107).

Brink and Wood (1994:151) assert that the covert data collection method provides a more normal environment for subjects. Vlassof and Tanner (1992:8) suggest that this method also permits the researcher to collect information about pertinent facts and more detailed context-related information. The use of a covert data collection technique in this research is ethically acceptable because there was no violation of the participants' right to privacy (Polit & Hungler 1995:123). The researcher was a tutor who was well known to the students, and she did not probe for any kind of personal information.

3.3.3.2 Data collection instruments

The types of instruments used for data collection were two observation schedules, which are checked off ticking either **yes** or **no**. For the purpose of the research, the following two sets of observation schedules were prepared.

● The first observation schedule was used for assessing teaching within the theoretical environment by making use of the curriculum. The curriculum was used because it forms the guideline for the teaching of theory and practice of teaching. The nursing curriculum content is surveyed by means of observation schedule. This observation schedule was used as a guideline to measure whether what had been included in the curriculum was being taught in the practical situation or not.

● The second observation schedule was designed to assess whether what was being done in clinical learning environment for the students allowed the integration of theory and practice in actual practice. This observation schedule for practica was based on the schedule for assessment of the curriculum. Both schedules were based on information obtained from the literature review.

3.3.3.3 Format of the instruments (observation schedules)

The observation schedules were designed to gather whatever information the researcher needed in the following areas:

O **Curriculum guidelines as laid by the SANC**

Both schedules were designed to assess whether the curriculum allowed for subject integration. They were also designed to assess whether comprehensive family planning services were being rendered in the community (this would be an indication of the integration of theory and practice).

The instruments were prepared to find out whether the curriculum emphasised theory more than practice, and, if so, whether this would have a negative impact on the integration of theory and practice by making students more theory-orientated than practice-orientated. For an effective integration of theory and practice, the curriculum should give equal weight to both theory and practice, as was noted in the literature review by (Chun-Heung & French 1997:458).

○ **Teaching strategies, media and clinical teaching**

Both instruments were designed to elucidate how both theoretical and clinical teaching was performed. Teaching (in this sense) included teaching strategies, teaching aids, periods of clinical teaching and the people who were involved in clinical teaching. The timetables for teaching theory and practice were checked to find out whether:

●   too much content was being taught on a daily basis. (Too much content makes learning more difficult and encourages rote learning rather than active reflection on and conceptualisation of the content which is taught.)

●   the types of teaching strategies used encouraged any kind of active participation on the part of the students.

●   teaching aids were used to facilitate learning in both theory and in practice. (Teaching aids ensure an effective integration of theory and practice.)

○   **Clinical evaluation**

The observation schedule was used to observe:

●   whether the tutors were also involved in doing continuous and summative evaluations.

●   whether tutors were involved in the clinical teaching of nursing students.

●   whether the tutors were only involved during evaluation phase.

The observation schedules were used to find out where evaluation was done and the

techniques that were used for evaluating students.

O   **Accompaniment**

The observation schedules were used to find out whether there are people who are involved in accompaniment of nursing students in the clinical area and whether or not there is a policy about the accompaniment of nursing students as they learn about family planning.

The clinical observation schedule was used to assess whether accompaniment was done by (1) preceptors who were teaching Community Nursing Science only or by (2) other preceptors who were teaching other disciplines. The researcher also observed the frequency of accompaniment so that she could get a general picture of how much clinical guidance the students received – to ensure an effective integration of theory and practice.

O   **Clinical situations to which nursing students were allocated**

The observation schedules have been used to assess the following:

●   whether there were enough facilities available for students to get sufficient clinical exposure.

●   whether the services offered were always available and within reach of the community.

●   whether the services rendered were integrated and comprehensive.

It is evident that when more clients utilise family planning services, the better will be the

opportunities for students to get the practice they need to perfect different skills. This in effect means that there exists an effective integration of theory and practice.

○   **Educational preparation of staff**

The observation schedules were designed to obtain a detailed knowledge of the skills of those members of the nursing staff who were involved in the teaching of students, and to ascertain whether:

●   there was any continual updating of tutors, preceptors and professional nurses in the form of in-service education or workshops or conferences. Continual updating of staff enhances effective teaching because it builds confidence and autonomy. A tutor who is not sure of what he or she does will not have the necessary confidence to teach either theory or clinical practice.

●   the staff have an adequate knowledge about sexually transmitted diseases (STDs), including HIV and AIDS, and whether they can provide integrated comprehensive family planning services (such knowledge and provision would provide a necessary basis for assuming an effective integration of theory and practice).

○   **The use of preceptors and mentors in the clinical area**

The observation schedules were designed to reveal whether there were preceptors and mentors who could guide students in the clinical learning situations effectively, thereby ensuring an effective integration of theory and practice.

○   **Time spent in the theoretical and clinical areas**

The schedules were designed to observe whether the number of hours of clinical exposure which students had in clinical facilities was sufficient to enhance concrete experiences and reflective observation. The allocation list was also used to check whether or not students spent most of their time in the classroom without any opportunity to practise what they had learnt. Yassim (1994:184) points out that if there are no opportunities for the integration of theory and practice, students will spend their time learning theory. They would then be unable to reflect on the theoretical content which they have been taught. Family planning procedures, for instance, can only be implemented in practice.

○   **Demonstration room**

The schedules were used to observe whether there were any facilities in the demonstration rooms which tutors might use to reinforce the theory they have expounded by means of practical demonstrations. The schedules also ascertained whether the facilities were accessible to students during their free time (their off-duty periods). If the facilities were available, students would have opportunities to practise skills. Such practice would enhance the integration of theory and practice - as indicated by Burnard (1995:37). The use of a demonstration room enhances experiential learning. It also allows students the freedom to practise skills during their own (free) time.

3.4   PHASE 2

Phase two was organised in such a way that sampling techniques and population, the pre-testing of the instrument, validity and reliability, and ethical considerations would be given full weight and consideration. Each of these topics is discussed below.

3.4.1 SAMPLING AND TARGET POPULATION

A sample of research may be defined as a subset of the population that is selected for the study (Burns & Grove 1993:779). Sampling, as defined by Burns and Grove (1993:235), - involves the process of selecting a group of people, events, behaviours or other elements with which to conduct a study. The *target population* is the entire population or set of individuals or elements who fulfil the sampling criteria (Polit & Hungler 1995:654).

3.4.1.1 Target population

The target population was composed of fourth-year student nurses in one of the tertiary institutions for nurse training in the Northern Province. Because the study would have been too wide, it was decided to narrow the study to one discipline, namely Community Nursing Science. It was then further decided to focus just on family planning.

The reason for choosing fourth-year student nurses is that they have already completed the family planning component of the curriculum in class (theory) and in the clinical area (practica). They are therefore expected to be able and competent to render comprehensive family planning services to their clients. Fourth-years were also suitable for this study

because they are expected to examine patients and prescribe treatment and because they are also expected to advise clients on whatever methods might be most suited to them.

Because students have been taught about the treatment and prevention of STDs, cancer and HIV/AIDS, they are, at this level of their training, expected to be fully conversant with all the above-mentioned topics. The reasons for choosing family planning as an area on which to focus for this research has been discussed in detail in chapter 2 (see section 2.5.1).

3.4.1.2   Sampling process

The researcher selected a convenience sample for this research while bearing in mind that her research method would involve covert observation. The convenience sampling process involves the inclusion of subjects in a study because they are available at the time of the study (Burns and Grove 1993: 245). Brink (1996: 140) indicates that convenience sampling allows for the utilisation of readily available subjects. Convenience sampling is classified under non-probability sampling methods. This means that not every element of the population has an equal opportunity for selection in the sample (Burns and Grove 1993: 244). The advantages of convenience sampling is derived from the fact that samples are inexpensive and accessible. They also usually require less time to acquire (Burns and Grove 1993: 245).

The researcher preferred to use the convenience sampling method although it is generally regarded as being less than ideal because, according to Burns and Grove (1993: 245), it provides little opportunity to control bias. Bias might arise, for example, if some students had been allocated to the clinical area for a longer time than others. Some might thus, for

example, be repeating the same year of study. This possibility of bias was removed by excluding from the sample students who were repeating that part of the course (since they had more experience, their data might have skewed the findings).

Since the researcher at no point explained that she was actually conducting research, she felt that sampling by convenience was the most appropriate method to follow. The researcher visited those institutions to which fourth-year student nurses had been allocated for their clinical learning experiences and observed students as they rendered family planning services to clients. The researcher also conversed with the tutors concerned to find out about the types of teaching strategies that are used to teach family planning in the clinical area.

The sampling criteria included the following:

●   Students had to be engaged in fourth-year level studies.
●   Students had to be studying Community Nursing Science and be in the process of providing family planning services to their clients.

3.4.1.3 Pre-testing the research instrument

Pre-testing a research instrument means conducting a trial run to determine whether the instrument is clearly worded and free from major biases and whether it solicits the kind of information which the researcher envisioned (Polit & Hungler 1995: 650).

Pre-testing involved observing fourth-year student nurses in one of the clinics which had not been included in the main study for 20 minutes each while they attended to clients who needed family planning.

The researcher pre-tested the instrument in order to:

- check the content validity and reliability of the instrument
- identify any latent problem
- assess whether the study was feasible
- assess whether the objectives of the study were being fulfilled.

Pre-testing the instrument also helped the researcher, as well her assistant, to acquaint themselves to the observation schedules. They found that some of the required observations could not be performed in practice, and they then discarded these. (Thus, for example, there was item on the observation schedule for the clinical area that sought to elicit information about cultural practices which such as cultural habits, taboos and customs. The researcher found that this information was not observable while students rendered family planning services - although it was indeed possible to observe indications of the beliefs, values and practices of different cultures. Those items were therefore discarded and they were replaced by an item that sought information about beliefs, values and practices.)

3.4.1.4   Validity and reliability

The researcher had to ensure the validity and reliability of the instruments before embarking on the process of data collection. Validity, according to Polit and Hungler (1995: 353), refers to the degree to which an instrument measures what it is supposed to be measuring. Leedy (1993: 41) has defined *face validity* as the type of validity that relies upon the subjective judgement of the researcher. Brink and Wood (1994:175), on the other hand, define face validity as *judging at face value*, that is, drawing conclusions when very little is known about the variable which is being measured.

Brink and Wood (1994:176) have defined content validity as a self-evident measure that involves a comparison of the measuring technique to what is known from the literature on the topic. Content validity will ensure that the items cover the known content represented in the literature. Reliability of the instrument refers to the degree of consistency with which the instrument measures the attribute (Polit & Hungler 1995:651). The statistical reliability of the study was checked and confirmed by a professional statistician.

The two observation schedules were developed after a thorough review of the literature which related to the problems of integrating theory and practice - with special reference to family planning. The instrument was tested for face and content validity by giving the schedules to supervisors and colleagues who have a proven record of expertise in research and by asking them to identify any ambiguities in wording and repetition of items that might be present. Statisticians were also consulted to establish whether the instrument was sufficiently comprehensive in the range of behaviours which it considered, and whether it was appropriate in terms of space and length. After due feedback, some items were reworded while others were discarded to give the instrument a greater clarity. During pre-testing of the instrument, content validity was confirmed by a professional statistician who checked the relevance and adequacy of the schedules.

3.4.1.5 Ethical considerations

The following ethical considerations were taken into account in this research:

O   **Informed consent**

●   A letter requesting for permission to conduct research at the three hospitals and a campus was written to the Superintendent General (Department of Health) of the Northern Province. The proposal, consent document and two observation schedules were enclosed with the letter. Permission was granted after the researcher made a presentation of the research to the directorate. Copies of the letters in which permission is sought, and the letter of response from the Superintendent General, are attached in Annexure C.

●   The observation schedules and copies of letters granting permission from the Superintendent General were sent to the nursing service managers and superintendents of the three hospitals which had been selected from among those which were used for clinical teaching. The same letters were sent to the principal of the college and deputy principal of the campus. Their responses are shown in Annexure C.

O   **Right to self-determination**

●   Covert data collection did not violate the right to self-determination of the participants as the research did not deal with sensitive information. The research did not involve any discomfort or harm to participants as no personal information was sought from them (Burns and Grove 1993: 95).

●   Participants were informed about the clinical observations that the researcher was making and they were told that participation was voluntary. They were told that they could withdraw from the study without being adversely affected in any way

whatsoever.

O   **Right to privacy and dignity**

●   Privacy was maintained as the data collected was not linked to any person.

O   **Right to anonymity and confidentiality**

●   Confidentiality and anonymity was maintained as the data collected cannot be linked to any of the participants at all.

3.5   PHASE 3

In phase three, a systematic description of the actual process of data collection was given. Data collection has been described in detail in this chapter, and the stages which the researcher used to obtain the information from the three clinical areas and a campus in the Northern Province have all been described. The stages were as follows:

3.5.1. DATA COLLECTION PROCESS

O   **Stage 1**

The researcher visited the college where students were being taught theory, and used her observation schedule (see Annexure B) to assess the curriculum. She inspected the demonstration room to see if any of the teaching aids which are used to reinforce family

planning were present. The researcher asked the tutor responsible for teaching of family planning how she taught the subject content and whether there was any specific course in family planning that had to be attended, for example, a two weeks family planning course or speciality in primary health care.

The researcher scrutinised the curriculum that was used for teaching of family planning to see if it allowed for any integration of theory and practice and whether or not comprehensive integrated services were rendered to clients. The allocation list was also checked to determine whether students had been allocated to the clinical area before theoretical content had been learned or after, because this told the researcher how much theoretical knowledge students had before they ventured in to the practical field

O   **Stage Two**

The researcher visited the hospitals and clinics to which students had been allocated to render community health care services. Student nurses were evaluated through the use of an observation schedule for practica (see Annexure B). The researcher was assisted by one of the clinical tutors. This helped the researcher to avoid the Hawthorne effect because the students were then observed by someone with whom they were already familiar. The researcher observed how forty (40) fourth-year student nurses provided family planning services to their clients.

Professional nurses involved in teaching in each area of clinical allocation were asked on how clinical teaching was done this included teaching strategies, accompaniment and evaluation (summative and formative) in order to make a comparison of what was laid

down in the curriculum and what was done in actual practice.

3.5.2 DATA ANALYSIS

Data analysis refers to the systematic organisation and synthesis of research data (Polit & Hungler 1995: 639).The collected data was used by the researcher to compare what had been taught in the classroom with what they did in actual practice. Inferential statistical techniques were then used to assess whether there was any problems with integrating theory and practice.

Data were electronically captured and analysed by the SAS programme. The purpose of the analysis of the computerised data was to note the percentage, mean and standard deviation of items. Computer analysis was carried out by using a statistical package known as SAS system (SAS 1985:xv).

Inferential statistics are designed to allow inference from sample statistics to a population parameter commonly used to test similarities and differences in subsets of the sample under study (Burns & Grove 1993:770). The type of test that was used is the t-test.

The t-test is a statistical procedure which is used to determine any significant difference between measures of two samples (Burns & Grove 1993:782). The t-test is also suitable for paired comparisons in a single sample (SAS1985:799).

○   **The T-test was chosen because:**

●   it was the most reliable test that could be used to compare the differences between theoretical teaching and actual practice.

●   as the sample was small (n=40), the T-test was the most reliable test to use (Burns & Grove1993:507).

●   the observation schedule for theory was used as a criteria to observe whether what was taught in theory was actually applied in the practical situation.

The data is presented in detail in the next chapter by means of tables and bar graphs..

3.6 CONCLUSION

This chapter focused on the research methodology. The type of research was chosen was quantitative. Participant observation was chosen and data collection was done by means of an observation schedule that was used by the researcher. Permission was sought from the Superintendent General of the Northern Province. The next chapter will focus on data analysis.

CHAPTER 4

Analysis and presentation of data

4.1. INTRODUCTION

This chapter deals with the analysis, interpretation and discussion of data obtained through the observation schedules. The purpose of this chapter is (1) to present the information that was obtained, and (2) to assess the objectives of the study outlined in chapter 1 in terms of the data which the researcher obtained. The information was derived from two observation schedules. One observation schedule was used to audit the curriculum which provided the researcher with guidelines for observation in those clinical situations to which students had been allocated for their clinical learning. The researcher completed forty of these observation schedules as she observed the students who had been selected provide family planning services to their clients.

The other observation schedule, which was based on the requirements implied by the theory content of the curriculum, was used to observe the extent to which curriculum content was actually being applied in practical situations. Unfortunately, however, in some instances the curriculum does not go into any detail about the kinds of teaching strategies that should be used in family planning.

In order to overcome this deficiency, the researcher therefore interviewed both students and tutors. She asked them detailed questions about the teaching strategies they used to teach family planning and about their clinical teaching practices. She also inquired about the

problems which students experienced and the problems which tutors encountered as they accompanied students in practical settings. The researcher used the items in the practical observation schedule which she had drawn up to shape the course of her interviews and to note responses. The literature which had been reviewed (chapter 2) was also used as a guide to draw up both observation schedules.

The data will be summarised through the use of both graphs and tables. The tables will indicate the number of observations made, the mean and the standard deviation. These tables will also include comparisons of the mean obtained from both observation schedules by the use of the t-test. The graphs will summarize the percentages of the responses on each item for all sections of the tables – except for the section on the educational preparation of staff.

What follows below are graphic presentations of responses, tabulated presentations of the observations that were made about both the theory (curriculum) schedule and the practical schedule, and varying degrees of commentary on both.

4.2 What SANC guidelines require the curriculum to address

O   **Figure 4.2   Graph showing responses to items about the curriculum**

This graph illustrates the percentage (%) of participants who appeared to have mastered each aspect in the curriculum, that is, the percentage of "Yes" responses on the Practical/Clinical schedule (see Annexure B).

The graph indicates that all respondents (100%) responded to items 1.5.1 and 1.10. These

items were concerned with clients who were offered a family planning service and the method of taking cervical smears. Twenty five percent (25%) of students indicated that spouses responded positively (i.e. consented) to the choice of a method of family planning. The majority of responses in items 1.7, 1.8 and 1.9 indicated levels of knowledge about sexually transmitted diseases, the human immune-deficiency virus (HIV), the acquired immune-deficiency syndrome (AIDS) and breast self-examination. Such knowledge was adequate for nurses to render a comprehensive family planning service.

O   **Table 4.2   A summary of responses to items in the curriculum section**

Table 4.2 summarises the findings on the curriculum section and demonstrates that all aspects of the curriculum required by the South African Nursing Council (SANC) for family planning are included. Table 4.2 reports on the number of observations (N) made on each of the items in the curriculum on the Practical/Clinical Schedule (see Annexure C). The table further indicates the mean (X) and the standard deviation (s) on each of the items. The researcher tested whether the observed practical data corresponded to what had been learned in theory (which is the criterion) by performing t-tests (t) (SAS 1985(b):799).

Out of 21 items, 16 were analysed as "significant" (on the 5% level) or "highly significant" (on the 1% level) deviation from the criteria. While three other items in table 4.2 indicated no significant differences between theory and practice, the last two items in table 4.2 indicated a 100% concurrence between theory and practice.

The following discussion will focus on all the items which the curriculum seeks to address.

● **Related Anatomy and Physiology**

❑ **Item 1.1**

The item on anatomy and physiology indicates a highly statistical significant difference (p<0,01) between the theoretical content and actual practice (table 4.2). This means that the knowledge of related anatomy and physiology that was taught in theory was not fully applied in the clinical situation.

● **Culture**

❑ **Items 1.3.1 and 1.3.2**

These items on cultural issues indicate a highly statistical significant difference (p<0,01) between what had been taught and the practical application of that knowledge. These items identified the clients' belief system and practices and they show that they were not seriously considered in the practical situation.

● **Administration and management**

❑ **Item 1.4**

Item 1.4, which concerns the administration and management of a family planning unit, indicates a highly significant statistical difference between theory and the practical application of knowledge. The students could not fully relate their theoretical knowledge of management

management of a family planning unit to the clinical situation.

● **Ethical and value systems**

❑ **Items 1.5, 1.6.1, 1.6.2 and 1.6.3**

The items on ethical issues (i.e. items about religious affiliation, the right to information, the consent of a spouse to the choice of a method and value systems) indicate a highly significant statistical difference ($p<0,01$) between theory and practice. The knowledge of value systems and ethical issues such as religious affiliation, the right to information and the consent of spouse to the choice of a method of family planning, was not given full consideration when students rendered family planning service to clients.

● **Sex education**

Items 1.12 and 1.14

These items indicated a high significant difference ($p<0,01$) between the counselling skills and sex education taught in theory and what is actually done in practice (table 4.2). This means that correct counselling for a client who needed family planning method and sex education was not adequately rendered in actual practice – although it had been taught in theory. This indicated that there is a discrepancy between theory and practice.

● **Legal issues**

❑ **Items 1.16.2 and 1.16.3**

These issues on the termination of Pregnancy Act and Human Rights indicated that there exists a highly significant statistical difference ($p<0,01$) between what is taught in theoretical content and what is applied in practice. The researcher noticed during observation that students had difficulty in relating their knowledge of theoretical content about the termination of Pregnancy Act and Human Rights to the clinical situation.

The above findings (reflected in table 4.2) indicate that students could not efficiently apply what they had been taught in the curriculum to the conditions which they encountered in the clinical situation. Such findings indicate a dissonance between theory and practice in nurse education.

● **Pharmacology**

❑ **Item 1.2**

Although pharmacology has been taught in the classroom, the findings indicate a statistically significant difference ($p<0,05$) between the theory that students had learned and what they were able to apply in practice (see table 4.2.). Students could not apply their theoretical knowledge of pharmacology fully to the practical situations which they encountered because they could not explain the action and side effects of medication which is used in family planning methods to their clients.

● **Health education and emergency contraception**

❏ **Items 1.11 and 1.13**

The above items explored how well students coped with the very important tasks of trying to reduce high rates of pregnancy and educating clients about family planning and related matters. In these areas students also experienced great difficulty in relating theory to practice. The results of the findings indicate a statistically significant difference between theory and practice ($p<0,05$) (see table 4.2). This means that although students had been taught about the importance of giving health education in matters such as the importance of regular examinations while on certain methods (such as oral contraception or injectables), the treatment of STDs, the prevention of HIV/AIDS, and what to do in the event of a client defaulting on a course of oral contraception (emergency *post facto* contraception), they were inefficient in conveying what they knew to their clients.

● **Scope of practice**

❏ **Item 1.16.1**

The findings on the scope of practice which nurses might perform indicated a statistically significant difference ($p<0,05$) between theory and practice. Knowledge of the scope of practice was not fully applied to the clinical situation. This indicated that the relationship between theoretical content and practice is unsatisfactory because students had difficulty in applying what they knew to practice for example education and advice on the choice of a method forms part of the scope of practice.

●   **The management of STDs, HIV/AIDS and breast self-examination**

❑   **Items 1.7, 1.8 and 1.9**

The above items indicated no significant difference between what was learned in theory and what was done in practice. This therefore meant that students could relate their theoretical knowledge of the management of STDs, HIV/AIDS and breast self-examination to their clinical practice.

Respect for clients and the method used to take cervical smears

❑   **Items 1.5.1 and 1.10**

All students showed a proper respect for the clients who attended a family planning service clinic. Students explained the method for taking cervical smears to their clients and advised them to go for Papanicoleau (PAP) smears. The findings therefore indicate a 100% concurrence between the curriculum and practice in these areas.

The above findings show that, in most cases, students had difficulties in applying the theory they had learned in practical situations. This might be due to the fact that the theoretical content of the curriculum is too idealistic and academic and that it bears little relationship to the real needs of clients. These findings concur with those of Chun-Heung and French (1997:458), which were discussed in chapter 2 (the literature review). Chun-Heung and French noted that if the curriculum is too theory-orientated and is not grounded on the realities of clinical practice, it will create difficulties when students attempt to integrate

theory and practice.

Figure 4.2 presents the responses on items in the curriculum on a graph (next page).

Fig 4.2 responses to items in the Curriculum section

92
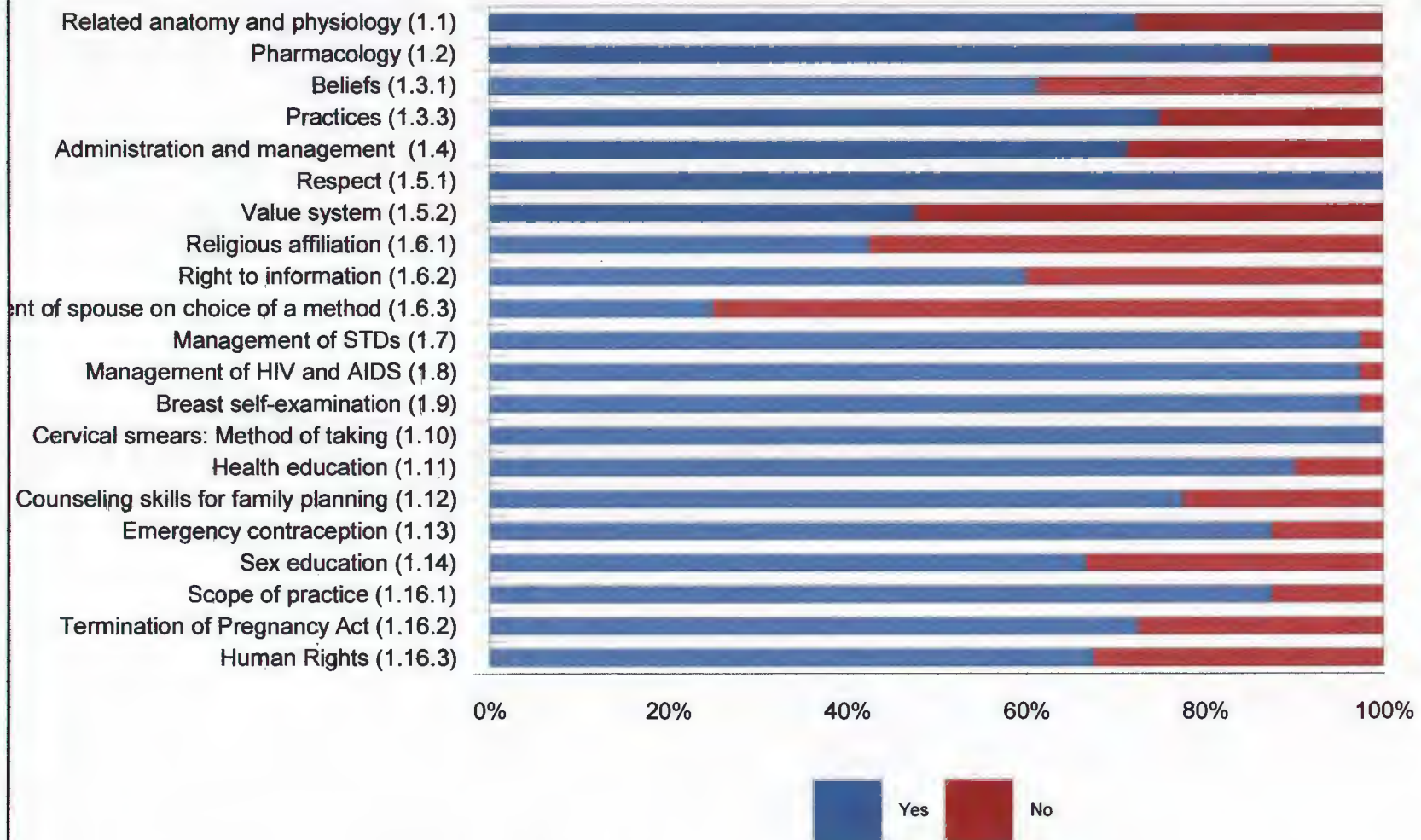
Table 4.2   A summary of the responses to items on the curriculum

CURRICULUM Are the following components included in the curriculum on family planning (as required by SANC guidelines)?	N	X̄	s	t
1.1 Related anatomy and physiology	40	0,725	0,452	**3,846****
1.2 Pharmacology	40	0,875	0,335	**2,360***
1.3 Culture 1.3.1 Beliefs 1.3.2 Practices	39 40	0,615 0,750	0,493 0,504	**5,099**** **3,606****
1.4 Administration and management	35	0,714	0,458	**4,837****
1.5 Value systems 1.5.1 Respect 1.5.2 Value system	40 40	1,000 0,475	0,000 0,506	- **6,565****
1.6 Ethical issues 1.6.1 Religious affiliation 1.6.2 Right to information 1.6.3 Consent of spouse to the choice of a method	40 40 40	0,425 0,600 0,255	0,501 0,496 0,439	**7,264**** **7,649**** **3,606****
1.7 Management of STDs	39	0,974	0,160	1,433
1.8 Management of HIV and AIDS	39	0,974	0,160	1,433
1.9 Breast self-examination	39	0,974	0,160	1,433
1.10 Cervical smears, the method of taking	40	1,000	0,000	-

CURRICULUM	N	X̄	s	t
1.11 Health education	40	90,0	0,304	**2,082***
1.12 Counselling skills for family planning	40	77,5	0,423	**3,365****
1.13 Emergency contraception	40	87,5	0,335	**2,360***
1.14 Sex education	39	66,7	0,478	**4,583****
1.16 Legal issues on family planning				
1.16.1 Scope of practice	40	0,875	0,335	**2,360***
1.16.2 Termination of Pregnancy Act	40	0,725	0,452	**3,846****
1.16.3 Human Rights	40	0,675	0,474	**9,000****

*   : $p < 0,05$

** : $p < 0,01$

4.3   Teaching strategies, media and clinical teaching

The data on the use of teaching strategies, media and clinical teaching was presented in the form of graphs. Data was gathered by asking tutors and students questions such as "Who does clinical teaching during your period of clinical allocation?" The practical observation schedule was used as a guideline for collecting information. Comparisons between the mean scores were not able to be calculated because the curriculum says very little about what teaching strategies and media should be used, and how they should be used. The discussion that follows is a summary of discussion on the percentage (%) of participants who gave a positive responses to items relating to the use of different teaching strategies, media and clinical teaching.

Figure 4.3   Graph showing the responses to items on teaching strategies, media and clinical teaching

● **Teaching strategies**

❏ **Items 2.1.1, 2.1.2, 2.1.3, 2.1.4, 2.1.5, 2.1.6 and 2.1.7**

There was a 100% positive response to items 2.1.3, 2.1.4, 2.1.5 and 2.1.6 on teaching strategies (i.e. demonstration, simulation, lecture and workbooks). This indicated a positive response to the use of the above-mentioned method of teaching family planning. Role play indicated (65%) use in teaching family planning. There was a very low positive response (12,5%) to item 2.1.7, which relates to the use of problem-based teaching as one of the teaching methods for family planning. There was also a low positive response (27,5%) to item 2.1.2, which related to the use of small group discussions.

These results confirm what was said in chapter 2 (the literature review) about the use of teaching strategies. When describing Kolb's Experiential Learning Theory, Holbert and Thomas (1988:30) stressed the importance of using teaching strategies (such as small group discussion demonstration, simulation, workbooks and problem-based teaching) which stimulate creative thinking. These teaching strategies enhance reflective observation, abstract conceptualisation and active experimentation (as indicated in figure 2.1 of Kolb's Experiential Learning Cycle in chapter 2).

Students who are taught using the above-mentioned methods (small group discussion and problem-based teaching) will be able to correlate theory and practice because:

● the continuous use of the lecture method alone as teaching strategy encourages rote learning (as was indicated in chapter 2). Students who rely on rote learning will thus have problems in reflecting on their earlier experiences (Cust 1995:281).

● the use of the demonstration, simulation and workbooks as teaching strategies enhances concrete experiences and active experimentation on the part of nursing students (as is shown by Kolb's Experiential Learning Cycle).

● **Teaching media**

❑ **Items 2.2.1, 2.2.2, 2.2.5.2, 2.2.3 and 2.2.4**

The graph indicates that 100% of students responded positively to items 2.2.1, 2.2.2 and 2.2.5.2, which relate to the use of charts and realia in family planning and clinics as areas where students receive their clinical experience. There was a low positive response (5%) to the use of slides and cassettes on items related to counselling (items 2.2.3 and 2.2.4 respectively). This may indicate that little use is made of variety in teaching media for the purpose of enhancing learning and improving an integration of theory and practice.

● **Clinical teaching**

● **Items 2.3.1, 2.3.2, 2.3.3 and 2.3.4**

All respondents (100%) responded positively to the clinical teaching done by preceptors/mentors while only 65% responded positively to the clinical teaching done by tutors and professional nurses-in-charge. The lowest positive rate (45%) was to junior members of staff who are involved in the clinical teaching of students.

From these findings it appears that

● tutors seem to have difficulty in teaching students what they should be teaching them in clinical settings as frequently as is required. These findings concur with those of Jones, in Bailie (1994:151), who found that tutors gave clinical teaching a low priority and that this could impact negatively upon the integration of theory and practice.

● professional nurses are less likely to be involved in clinical teaching. This confirms the findings of several researchers (Ferguson & Jinks 1994:688; Lathlean 1992:236; McCaugherty 1991:1061) who found that there is a shortage of staff in the ranks of professional nurses because of the excessive workload that they are expected to carry.

● preceptors/mentors (clinical tutors) are mostly more involved in clinical teaching. This encourages a separation between theory and practice because those who teach theory are not the same people as those who teach practice. It also shows that tutors are separated from the clinical learning environment – a finding which is supported by Fawcett and Mc Queen (1994:265).

Figure 4.3   Graph showing the responses to items on teaching strategies, media and clinical teaching (next page)

Fig 4.3 responses to the items on

Strategies,Media & Clinical Teaching

Role play (2.1.1)
Small Group Discussion (2.1.2)
Demonstration (2.1.3)
Simulation (2.1.4)
Lecture (2.1.5)
Workbooks (2.1.6)
Problem-based teaching (2.1.7)
Charts (2.2.1)
ealia used in family planning (2.2.2)
Slides (2.2.3)
Cassette on counseling (2.2.4)
Rural (2.2.5.1)
Clinics (2.2.5.2)
Out patient department (2.2.5.3)
Preceptors/Mentors (2.5.1)
Tutors (2.5.2)
ofessional nurses in-charge (2.5.3)
Junior members of staff (2.5.4)

0% 20% 40% 60% 80% 100%

Yes   No

4.4 Summary on clinical evaluation

O **Figure 4.4   Graph showing responses to items on clinical evaluation**

Almost 100% of respondents responded positively to most items relating to clinical evaluation, techniques for evaluation (items 3.6.1- 3.6.5), types of summative and formative evaluation (items 3.1.1.2, 3.1.1.3, 3.1.2.2 and 3.1.2.3), formal feedback on formative evaluation (3.2.1.2), the persons responsible for doing clinical evaluation (3.3.2, 3.4.1 and 3.4.2), and areas for doing clinical evaluations (3.5.1.2 and 3.5.2.2).

Formal reports on summative evaluation indicated (62,5% and 67,5%) on (items 3.2.2.1and 3.2.2.2). Items 3.5.1.1 and 3.5.2.1 indicated (67,5%) on hospitals as areas where both evaluations are used.

The least number of positive responses (7.5% and15%) concerned the use of on spot evaluations (item 3.1.1.1 and 3.1.2.1) as a method of formative and summative evaluations. This was followed by 10% who responded positively to the use of a demonstration room for both formative and summative evaluation (items 3.5.1.3 and 3.5.2.3). Thirty per cent (30%) responded positively to the use of written reports (item 3.2.1.1) as a formal feedback mechanism for formative evaluation.

Ironically, the researcher found that 67,5% responded positively to tutors who performed formative evaluation (item 3.3.1), while 100% responded positively to the same tutors who performed summative evaluations.

O   **Table 4.4   A summary of responses to items on clinical evaluation**

Table 4.4 summarises the findings with regard to clinical evaluation by noting whether the evaluation which is taking place in the clinical situation coincides with that indicated on the theory schedule (the criteria).

Out of 25 items, nine show statistically significant differences or highly statistically significant differences when compared to the criteria. Fifteen items, on the other hand, show a 100% concurrence between theory and practice. Only one item indicates no statistically significant difference between criteria for theory and practice.

O   **Types of formative and summative evaluations**

❑   **Items 3.1.1.1 and 3.1.2.1**

Item 3.1.1..1 indicates a statistically significant difference ($p < 0.05$) between the types of summative evaluations which are done in the clinical situation when compared to those that are recommended in the curriculum. Evaluation on the spot is not usually used for summative evaluations, item 3.1.2.1 indicates no statistically significant difference.

O   **Feedback on formative and summative evaluations**

❑   **Items 3.2.1.1, 3.2.1.2, 3.2.2.1 and 3.2.2.2**

Item 3.2.1.1, which is concerned with formal feedback on formative evaluation (written

reports), was statistically significant (p<0,01) in that no relationship was shown to exist between the criteria and the actual practice. The results indicate that written reports, which were occasionally given to students during formative evaluation – although in most instances only oral reports were given (item 3.2.1.2) – indicate a 100% concurrence between theory and practice. This means that oral reports were given to students on completion of a skill during continuous evaluations only – whereas items 3.2.2.1 and 3.2.2.2 rendered highly significant statistical results (p<0,01) for written and oral reports for summative evaluation. This indicates that formal feedback is only occasionally given after summative evaluation.

O **Persons responsible for formative and summative evaluations**

❑ **Items 3.3.1, 3.3.2, 3.4.1and 3.4.2**

Item 3.3.1 indicates a highly significant statistical difference (p<0,01) between what is recommended by the curriculum and what is actually done in practice. Tutors are not always involved in doing continuous assessment of students. Items 3.3.2, 3.4.1 and 3.4.2. indicate a 100% concurrence between theory and practice since both tutors and preceptors were both involved in final evaluations.

O **Venues for formative and summative evaluations**

❑ **Items 3.5.1.2, 3.5.2.2, 3.5.1.1 and 3.5.2.1**

Items 3.5.1.2 and 3.5.2.2 indicated a 100% concurrence between theory and practice in the

use of clinics for both formative and summative evaluations. Items 3.5.1.1 and 3.5.2.1 are statistically significant (p<0,01) and are concerned with differences in the use of hospitals as areas for formative and summative evaluation. This showed that there is no relationship between what is recommended in the curriculum and what is actually taking place in practice.Hospitals are not commonly used as facilities for summative and formative evaluations.

❑ **Items 3.5.1.3 and 3.5.2.3**

Items 3.5.1.3 and 3.5.2.3 are statistically significant (p<0,01) and give information about the use of the demonstration room for both formative and summative evaluation. This indicates that the demonstration room is occasionally used for both formative and summative evaluations.

○ **Techniques for summative and formative evaluations**

❑ **Items 3.1.1.2, 3.1.1.3, 3.1.2.2,3.1.2.3 and 3.6 (3.6.1, 3.6.2,3.6.3,3.6.4 & 3.6.5)**

All items indicate a 100% concurrence between theory and practice. This indicated that all the techniques that were stipulated for evaluation were being used in the clinical situation. The techniques that were used for evaluation were projects, nursing care plans, case studies, Objectively Structured Clinical Examinations (OSCEs) and work books.

The findings suggest the following facts:

● Evaluation on the spot for formative purposes is not always done in the clinical area.

● In most instances, formal written reports about students' performances during continuous assessment and during final examinations were not given serious consideration. A formal report about a student's performance could act as a guideline for future practice. These findings concur with the research of Lowane (1990:61), which indicated that students obtain insufficient feedback about their performance in the ward.

● Tutors were not always involved in the continuous assessment of students. They are more involved in summative evaluation. This could obviously affect the continuity, consistency and objectivity of the skill because the final examiner has not always played a part in the teaching and continuous assessment of the student. The tutor would therefore be ill-informed about the reality of the practical situation.

Figure 4.4   Graph showing responses to items on clinical evaluation

Fig. 4.4.responses to items on Clinical Evaluation

On the spot evaluation (3.1.1.1)
Evaluation on one full skill (3.1.1.2)
Objectively Structured Clinical Examination (3.1.1.3)
On the spot evaluation (3.1.2.1)
Evaluation on one full skill (3.1.2.2)
Objectively Structured Clinical Examination (3.1.2.3)
Written reports (3.2.1.1)
Oral reports (3.2.1.2)
Written reports (3.2.2.1)
Oral reports (3.2.2.2)
Tutors (3.3.1)
Preceptors (3.3.2)
Tutors (3.4.1)
Preceptors (3.4.2)
Hospitals (3.5.1.1)
Clinics (3.5.1.2)
Demonstration room (3.5.1.3)
Hospitals (3.5.2.1)
Clinics (3.5.2.2)
Demonstration room (3.5.2.3)
Projects (3.6.1)
Nursing Care Plans (3.6.2)
Case study (3.6.3)
Objective Structured Clinical Examination (3.6.4)
Workbooks (3.6.5)

0%   20%   40%   60%   80%   100%

Yes   No

Table 4.4 A summary of the responses to items on clinical evaluation

3 CLINICAL EVALUATION 3.1.1 What types of formative evaluations are stipulated in the curriculum?	N	$\bar{X}$	s	t
3.1.1.1 On the spot evaluation	40	0,75	0,362	2,623*
3.1.1.2 Evaluation of one full skill	40	1,000	0,000	-
3.1.1.3 OSCE	40	1,000	0,000	-
3.1.2 What types of summative evaluations are stipulated in the curriculum?				
3. 1.2.1 On the spot evaluation	40	0,15	0,267	1,778
3.1.2.2 Evaluation on one full skill	40	1,000	0,000	-
3.1.2.3 OSCE	40	1,000	0,000	-
3.2 Formal feedback on evaluation				
3.2.1 What formal feedback on formative evaluation is stipulated?				
3.2.1.1 Written reports	40	0,300	0,464	9,539**
3.2.1.2 Oral reports	40	1,000	0,000	-
3.2.2 What formal feedback on summative evaluation is stipulated?				
3.2.2.1 Written reports	40	0,625	0,490	4,837**
3.2.2.2 Oral reports	40	0,675	0,474	4,333**

3.3 Which of the following does the curriculum designate to do formative evaluation?	N	X̄	s	t
3.3.1 Tutors	40	0,675	0,474	**4,333****
3.3.2 Preceptors	40	1,000	0,000	-
3.4 Which of the following does the curriculum designate to do summative evaluation?				
3.4.1 Tutors	40	1,000	0,000	-
3.4.2 Preceptors	40	1,000	0,000	-
3.5.1 Which areas for formative evaluations				
3.5.1.1 Hospitals	40	0,675	0,474	**4,333****
3.5.1.2 Clinics	40	1,000	0,000	-
3.5.1.3 Demonstration room	40	0,100	0,304	**18,735****
3.5.2 Which areas are indicated to use for summative evaluations?				
3.5.2.1 Hospitals	40	0,675	0,474	**4,333****
3.5.2.2 Clinics	40	1,000	0,000	-
3.5.2.3 Demonstration room	40	0,100	0,304	**18,735****
3.6 What are techniques for evaluation				
3.6.1 Projects	40	1,000	0,000	-
3.6.2 Nursing care plans	40	1,000	0,000	-
3.6.3 Case study	40	1,000	0,000	-
3.6.4 OSCE	40	1,000	0,000	-
3.6.5 Workbooks	40	1000	0,000	-

* $p < 0,05$ ** $p < 0,01$

4.5 A summary on accompaniment

O   **Figure 4.5 Graph showing responses to items on accompaniment**

There was a positive response of 100% of the respondents to (1) preceptors (item 4.1.1) as persons involved in accompaniment of students, (2) items on the various types of accompaniment (items 4.2.1, 4.2.3, 4.2.4), and (3) items on frequency of accompaniment *(item 4.3.1.3). There were different degrees of positive response to planned times of accompaniment (item 4.3.1.1: 60%, and item 4.3.1.2: 40%).

O   **Table 4.5 A summary of responses to items on accompaniment**

Table 4.5 indicates the observations that were made with regard to the accompaniment of students in the clinical area..

Out of nine items on accompaniment, four items were very statistically significant (p<0,01). They showed that there is poor relationship between theory and practice, while five other items indicate a 100% concurrence between theory and practice.

The following discussion describes the nine items.

O   **Persons responsible for accompaniment**

❑   **Items 4.1.1 and 4.1.2**

Item 4.1.2 rendered statistical significant results (p<0,01) because although the theoretical schedule showed that tutors were expected to perform accompaniment, practical observation

showed that they were not doing it very frequently. This observation revealed that problems are bound to arise if tutors do not accompany students in the clinical field. Item 4.1.1 showed that 100% of the preceptors were performing accompaniment with students in the clinical area.

O   **The accompaniment programme**

❏   **Items 4.3.1.1, 4.3.1.2 and 4.3.1.3**

Items 4.3.1.1 and 4.3.1.2 rendered statistical significant differences (p<0,01) with regard to the planned times for accompaniment. This means that the planned times demanded by the curriculum for accompaniment were not being adhered to. Item 4.3.1.3 indicated that 100% of the tutors visited the clinical area once a month.

O   **Required kinds of accompaniment**

❏   **Items 4.2.1, 4.2.2, 4.2.3 and 4.2.4**

Items 4.2.1, 4.2.3. and 4.2.4. indicated that practice concurs completely (100%) with what is required by theory (the curriculum). This means that demonstrating, bedside teaching and demonstrations outside of the ward, which are the kinds of accompaniment which are required by the curriculum, were fully applied in practical situations. Item 4.2.2, which refers to lecturing as a form of accompaniment, showed a very significant statistical difference between theory and practica.

These findings therefore reveal the following facts:

● Tutors do not perform a sufficient degree of accompaniment of students in the clinical areas. These findings concur with what Ferguson and Jinks (1994:688) found (see chapter 2), namely that the infrequency of tutors' visits to the clinical area affects their knowledge of patients and practice in the clinical field – and that this hampers their effective guidance of students.

● Tutors rely more on preceptors for clinical accompaniment. These findings concur with the findings of Fawcett and McQueen (1994:265), who indicated that the use of preceptors leads to a separation of tutors from those who teach theory and those who teach practica. Apparently those who teach theory were completely withdrawn from the clinical area and this had a negative influence on the integration of theory and practice.

Figure 4.5   Graph showing responses to items on accompaniment

Fig. 4.5 responses to items on Accompaniment
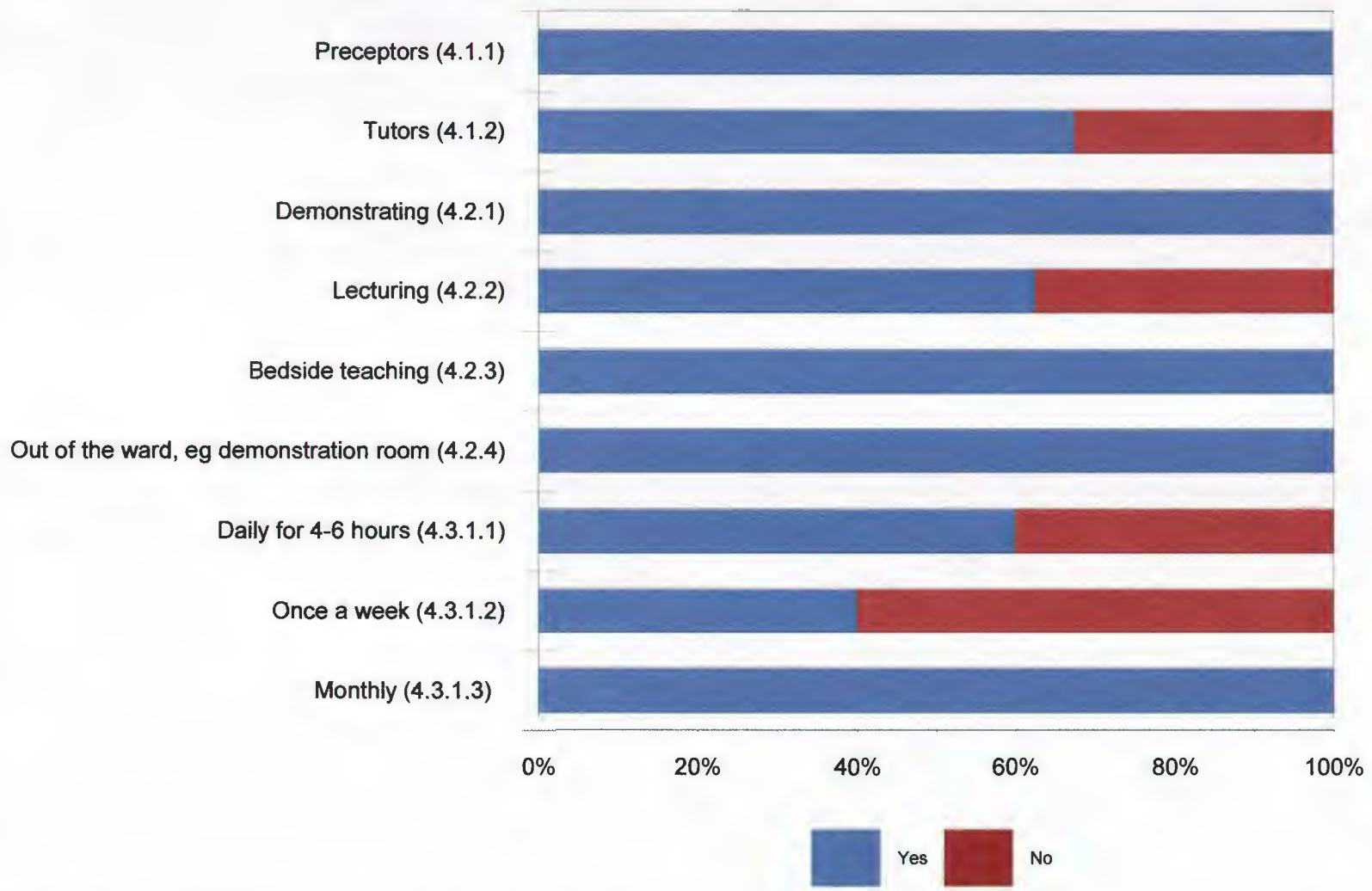
Table 4.5 A summary of responses to items on accompaniment

4 ACCOMPANIMENT				
4.1 Who is designated as being responsible for doing accompaniment?	**N**	**X̄**	**s**	**t**
4.1.1 Preceptors	40	1,000	0,000	-
4.1.2 Tutors	40	0,675	0,474	**4,333★★**
4.2 What types of accompaniment are performed?				
4.2.1 Demonstrating	40	1,000	0,000	-
4.2.2 Lecturing	40	0,625	0,490	**4,837★★**
4.2.3 Bedside teaching	40	1,000	0,000	-
4.2.4 Out of the ward (as, for example, in the demonstration room)	40	1,000	0,000	-
4.3.1 Are the planned times of accompaniment adhered to?				
4.3.1.1 . Daily for 4-6 hours	40	0,600	0,496	**7,649★★**
4.3.1.2 Once a week (one day a week)	40	0,400	0,496	**5,099★★**
4.3.1.3 Monthly (once a month)	40	0,000	0,000	-

*   : p<0,05

** : p<0,01

4.6 A summary of responses to items about the clinical situations to which students are allocated

O **Figure 4.6 Graph showing responses to items on the clinical situations**

The responses to the availability of clinical learning experiences indicated that the lowest number (15%) responded positively to the availability of seminars (item 5.2.1.2). This was followed by only 30% who responded positively to the use of the clinical conference. All respondents (100%) used the clinical areas to which student had been allocated (items 5.1.1.1, 5.1.1.2 and 5.1.1.3), namely clinics, antenatal and postnatal clinics and outpatients department respectively.

O **Table 4.6 The clinical situations (areas) to which students are allocated**

Table 4.6 summarises the findings on the clinical environment. It reflects how conducive this environment is to clinical learning when it is compared to what is demanded by the guidelines for clinical learning.

Eight items are included in the table. Of those eight, five are items which indicate a highly statistically difference between theory and practice. Only three items show a 100% concurrence with the designated criteria. The discussion that follows explains the items indicated above.

O   **The availability of clinical learning experiences**

❏   **Items 5.1.1.4, 5.2.1.1, 5.2.1.2, 5.2.1.3 and 5.2.1.4**

The above items all indicate a highly statistically difference (p<0,01) between theory and practice with regard to the availability of clinical learning experiences of students in the practical situation and what is required by the curriculum. One may therefore conclude that ward rounds, seminars, clinical conferences and case presentations were not fully utilised to enhance the clinical learning of students.

O   **Areas of clinical allocation**

❏   **Items 5.1.1.1, 5.1.1.2 and 5.1.1.3**

The areas for clinical allocation required by the curriculum (clinics, antenatal and postnatal clinics and out-patients departments) were all utilised. This was revealed by items 5.1.1.1, 5.1.1.2 and 5.1.1.3. These items show a 100% correlation between theory and practice.

These items also confirmed the students are not always exposed to the variety of learning opportunities that would be available in the clinical area if they were exposed to (for example) ward rounds, seminars, clinical conferences and case presentations. Students need to be exposed to a variety of learning opportunities to enhance the integration of theory and practice.

Figure 4.6 Graph showing responses to items on the clinical situation (Next page)

Fig..4.6 responses to items on the Clinical Situations
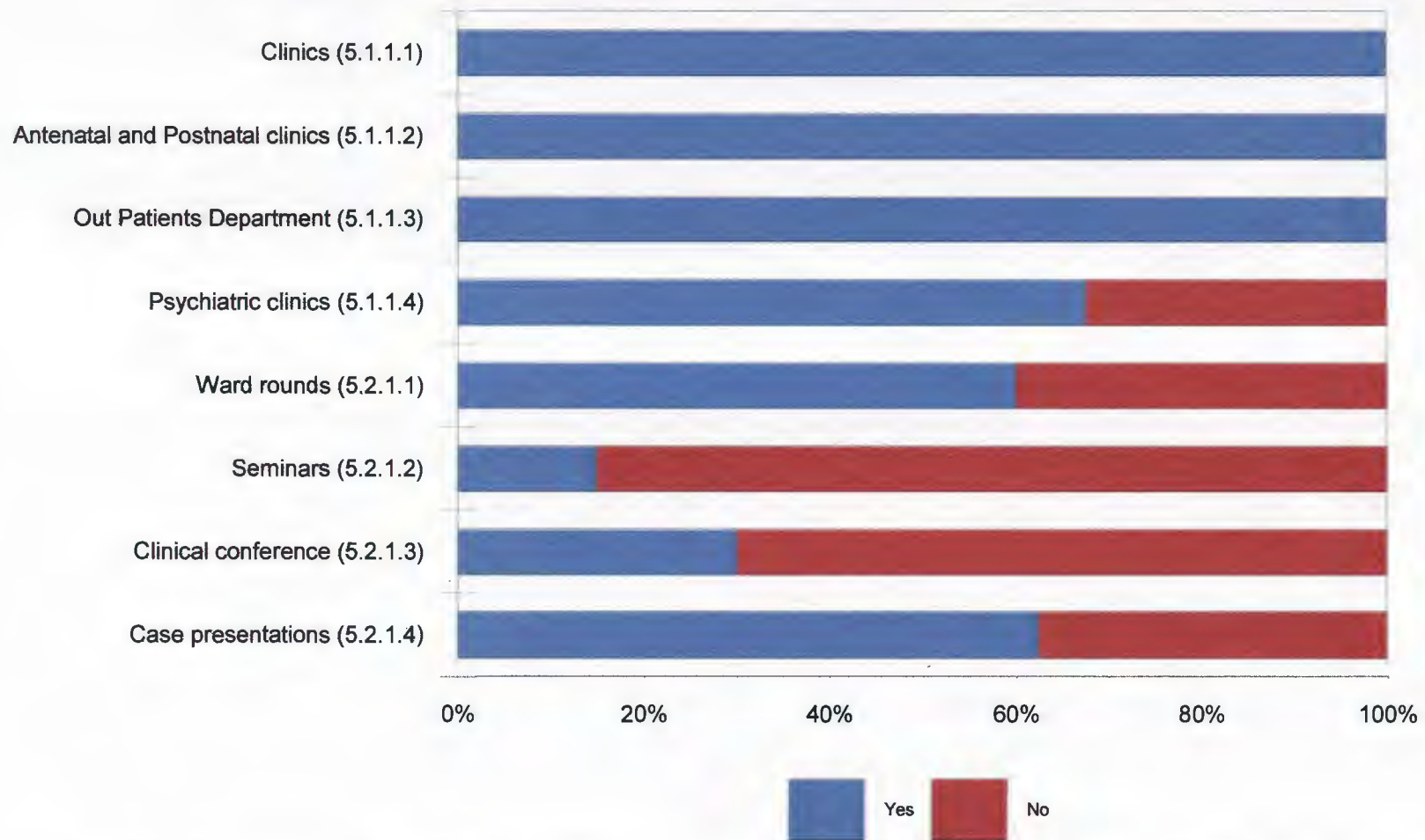
Table 4.6. **Summary of the responses to items about the clinical situations to which students are allocated**

5 CLINICAL SITUATIONS TO WHICH STUDENTS ARE ALLOCATED	N	$\bar{\bar{X}}$	s	t
5.1.1 To which of the following areas are students allocated?				
5.1.1.1 Clinics	40	1,000	0,000	-
5.1.1.2 Antenatal and postnatal clinics	40	1,000	0,000	-
5.1.1.3 Outpatients departments	40	1,000	0,000	-
5.1.1.4 Psychiatric clinics	40	1,000	474	**4,333****
5.2 The availability and accessibility of the clinical learning experience **5.2.1 Are the following learning experiences made available to students?**				
5.2.1.1 Ward rounds	40	0,600	0,496	**5,099****
5.2.1.2 .Seminars	40	0,150	0,362	**14,866****
5.2.1.3 Clinical conferences	40	0,300	0,464	**9,539****
5.2.1.4 Case presentations	40	0,625	0,490	**4,837****

*   : p<0,05

** : p<0,01

4.7. A summary of data about the educational preparedness of staff

◯   **Table 4.7   A summary of responses to items about the educational preparedness of staff**

Table 4.7 summarises the findings on the educational preparation of staff by observing whether all members of staff possess the educational requirements which are laid down in the criteria. There were only three items, of which two indicated a highly statistically significant difference between theory and practice. Only one item indicated a 100% concurrence between theory and practice.

❑   **Item 6.1.1**

The above item, which deals with the course on family planning, indicates a very significant statistical difference (p<0,01) between theory and practice. Although the South African Nursing Council (SANC 1992:22) guidelines require tutors to be clinical specialists, practical observation indicated that some teaching staff do not possess the speciality in family planning.

❑   **Item 6.1.3**

Item 6.1.3, which deals with in-service education, indicates a highly statistical significant difference (p<0,01) between theory and practice. This suggests that staff members were not being continually updated about family planning issues by means of in-service education.

❏ **Item 6.1.2**

This item revealed that all staff members have an appropriate level of knowledge about the management of STDs and HIV/AIDS.

These findings therefore confirm the following facts:

● Most tutors, preceptors and mentors have not completed the clinical specialisation required for teaching family planning, that is to say, they have not studied family planning or primary health care at the required level.

● In-service education for the updating of staff is only occasionally arranged. These factors undermine confidence in clinical teaching because the people who are teaching it do not possess up-to-date information in the clinical situation. These findings concur with the recommendations of Gibbon (1996:52) and Fawcett and McQueen (1994:265), namely that teaching staff be qualified clinical specialists.

Table 4.7   The educational preparedness of staff

6. The educational preparedness of staff	N	%	X	s	t
6.1. Do preceptors and mentors possess the following specialities?					
6.1.1 A course in family planning	40	75,0	0,750	0,439	10,817**
6.1.2 The management of STDs and HIV/AIDs	40	100, 0	1,000	0,000	-
6.1.3.In-service education	40	67,5	0,675	0,474	4,333**

*   p<0,05

**   p<0,01

4.8 A summary of items relating to the use to which the demonstration room is put

○ **Figure 4.8 Graph showing responses to items on the demonstration room**

All items on the graph indicate that there was a 80 to 82% positive response to the availability of facilities in the demonstration room.

○ **Table 4.8   A summary of items relating to the use to which the demonstration room is put**

Table 4.8 summarises the findings on the availability of facilities in the demonstration room by observing whether available facilities could be utilised for the teaching of family planning.

All five items indicate a very significant statistical difference between what is required by the criteria (curriculum) and what happens in actual practice.They show that most demonstration rooms do not have appropriate facilities for teaching this part of the curriculum.

The findings from these items reveal the following facts:

● Tutors do not usually use the demonstration room for teaching family planning because the facilities are not adequate.

● Students do not usually use the demonstration room for practising their skills in this area before they encounter patients.

All these factors hamper the integration of theory and practice. Concrete experiences and active experimentation develop as the student practises skills in an environment which will not adversely affect patients. This environment should be the demonstration room (Stevenson1996:55). Experiential learning develops as students practise skills (Burnard 1995:37). Because theoretical learning does not take account of the realities of the practical situation, students are encouraged merely to memorise – a practice that makes it difficult for students to integrate theory with practice.

Figure 4.8 Graph showing responses to items that relate to the use of the demonstration room

Fig 4.8 responses to items on the Demonstration room
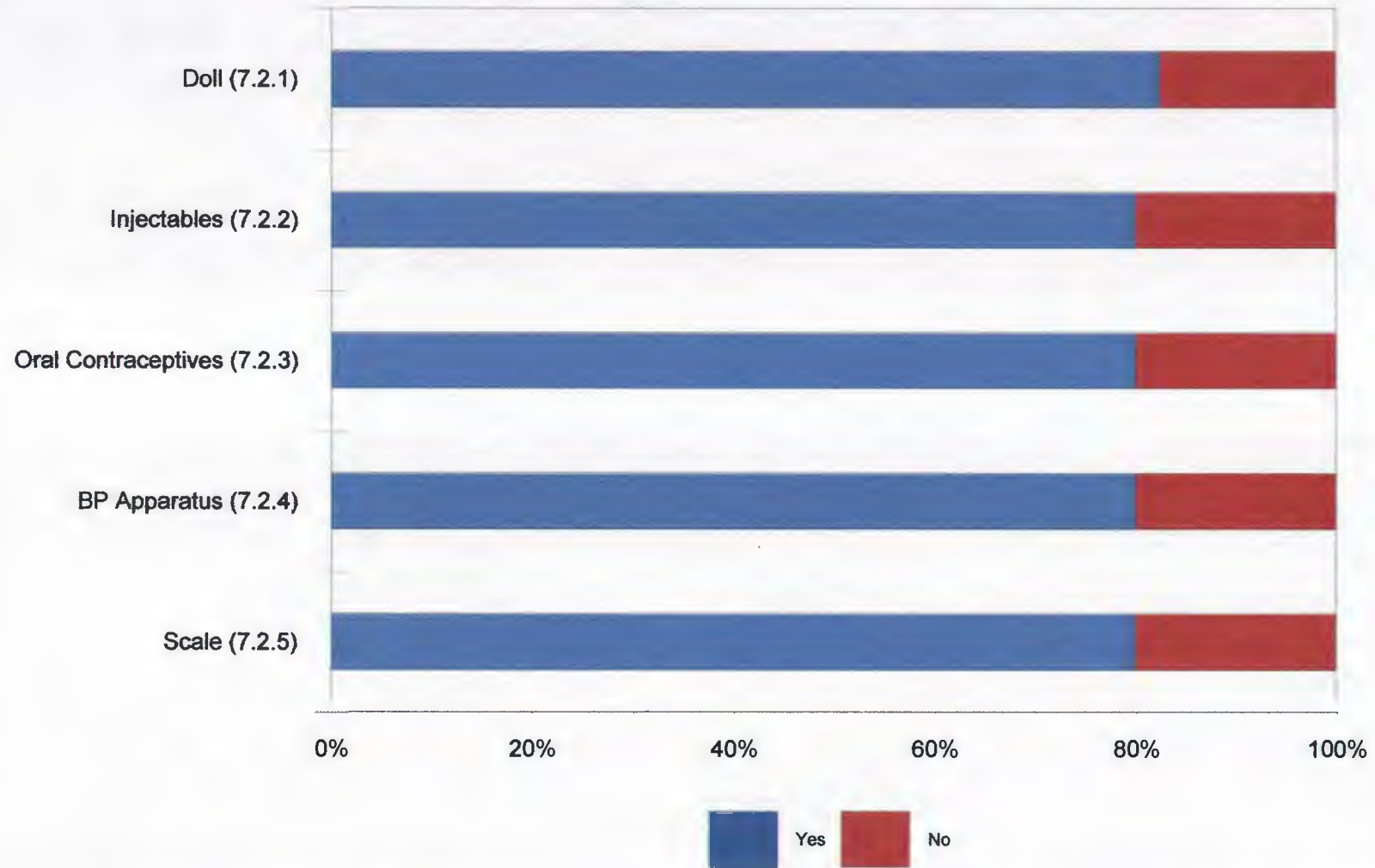
Table 4.8 Summary of the responses to items on the use of the demonstration room/clinical nursing laboratory

7 The demonstration room	N	$\overline{X}$	s	t
7.2 Are the following facilities in the demonstration room available for the rendering of family planning services?				
7.2.1 Doll	40	0,825	0,385	**13,559****
7.2.2 Injectables	40	0,800	0,405	**12,490****
7.2.3 Oral contraceptives	40	0,800	0,405	**12,490****
7.2.4 BP Apparatus	40	0,800	0,405	**12,490****
7.2.5 Scale	40	0,800	0,405	**12,490****

* $p<0,05$ ** $p<0,01$

4.9   A summary of other observations which were made about clinical teaching and which are significant for this study

O   **Theoretical teaching**

● The observations based on timetables and the allocation list indicate that students usually spend six weeks on the campus while they receive theoretical knowledge. The timetable for teaching is very full and most of the students' time is spent in classrooms in which they are lectured. In this situation no consideration is given to the individual learning styles of different students. The current teaching style is based on clearly stated objectives which students are required to master.

● These observations confirm the contention which the researcher made in chapter 2,

namely that a very full timetable and a formal teaching style encourage rote learning because students are bombarded with a lot of information upon which they (the students) are unable to reflect (Ferguson & Jinks 1994:689).

● Studies done by While (1991:451) proved that students should be allowed to spend a longer time in the clinical area than in being lectured on theory because this would allow them to build the confidence they need to practise. The above findings reveal that students apparently spend most of their time in theoretical situations rather than in practice. This affects their practice negatively because their learning becomes distorted and they forget what they have been taught in theory.

O **Clinical teaching**

Since most of the time available for clinical learning had to be spent in transporting students to their area of allocation, this had a negative impact on the integration of theory and practice. Some professional nurses were not keen to teach students when they are allocated to their sections. These findings support those of Garbett (1995:76), who found that professional nurses were not interested in teaching because they were not adequately prepared for their teaching role.

● Good staff relations between college tutors and other professional nurses in the clinical area enhance effective clinical teaching. These findings seem to confirm Wilson and Startup's (1991:1479) view that good staff relationships and a friendly ward atmosphere are essential for effective learning

● The availability of personnel (staff) enhances the effective clinical teaching of students and therefore enhances an effective integration of theory and practice.

● The number of students allocated to each clinical area had an influence on guidance and

supervision. If the group is too large, it becomes difficult for students to learn. These findings are similar to those of Gibbon and Kendrick (1996:52), who suggested that the that the number of students allocated to any clinical area should be controlled so as to avoid overcrowding. Overcrowding, they contended, makes teaching and learning environments counterproductive.

● Whether or not a student is interested in learning also crucially affects the quality of clinical teaching because a student who is curious will learn more than the one who is indifferent.

○ **Some other issues about accompaniment**

Some other issues about accompaniment that were identified during observation in the clinical areas were the following:

● When tutors feel as though they are visitors in ward situations, they also feel reluctant to perform accompaniment. These findings concur with those of Garbett (1995:77), who identified the fact that tutors perceive themselves as having the status of visitors in wards.

● Ward routine took up most of the time that should have been used for doing accompaniment.

● Tutors lack the knowledge of skills and content that they should have for the clinical situation. These findings concur with those of Fawcett and Mc Queen (1994:266), who indicated that because tutors are isolated from ward work, they lack clinical skills and are unfamiliar with ward layout, practices and documentation.

● Professional nurses are not comfortable with the presence of tutors in the clinical areas.

The results of this section confirm the contention which the researcher made in chapter 2 that tutors do not do accompaniment because of the unique problems which they encounter in their situations.

4.10   CONCLUSION

Data analysis and presentation was done by means of graphs and tables. The responses indicated that theory and practice complement each other and that the two cannot be artificially separated. The students need as much clinical exposure as possible if they are to integrate theory and practice effectively. The teaching staff on the other hand should accept as much responsibility as possible for clinical teaching, accompaniment and the continuous evaluations of students in their clinical learning environment.

The conclusions and recommendations which arise from these findings will be presented in the next chapter.

CHAPTER 5

Findings, conclusions and recommendations

5.1 INTRODUCTION

A summary of the findings, conclusions drawn from the study and recommendations will be discussed in this chapter. Problems relating to the integration of theory and practice in selected clinical nursing situations (family planning) were investigated in this study. The observation schedules were used to firstly audit the contents of the family planning curriculum laid down by the SANC against what is done in actual practice in family planning. The findings from the practical observation schedule were compared with those made according to the theoretical schedule to see if there were any significant differences between what is required by the guidelines for nurse training and what is actually done in practical situations.

5.2 FINDINGS, CONCLUSIONS AND RECOMMENDATIONS OF THE RESEARCH PROJECT

What follows is a discussion of (1) the findings of the research and (2) the conclusions which were drawn from the findings. Recommendations are also discussed under the heading of each research finding.

5.2.1 The extent to which the curriculum allows for integration of theory and practice

The most serious deficiency which the researcher identified was that the curriculum does not allow for the integration of theory and practice. According to the curriculum students are expected to focus on family planning when they study Community Nursing Science –

although the service might also be offered to a woman post delivery.

Table 5.1. The extent to which the curriculum allows for integration of theory and practice

Findings	Conclusion
The findings obtained from the practical observation schedule indicates a highly statistical significant difference (p<0,01) this implies that what is taught in the classroom is not fully applied in the clinical situation. Students have problems in linking the following theoretical content to the clinical situations: : - related anatomy and physiology, -culture (beliefs and practices), -administration of a family planning unit, -ethical issues, - legal issues (Termination of Pregnancy Act, Human Rights) - pharmacology -emergency contraception and -Scope of Practice of family planning	The findings reveal that, students had difficulties in applying the theory they had learned in practical situations. This might be due to the fact that the theoretical content of the curriculum is too idealistic and academic and that it bears little relationship to the real needs of clinical practice. These findings concur with those of Chun-Heung and French (1997:458), which were discussed in chapter 2 who noted that if the curriculum is too theory-orientated and is not grounded on the realities of clinical practice, it will create difficulties when students attempt to integrate theory and practice. Failure to link theoretical content with practical content was also influenced by the way the content was taught to the students, that is teaching strategies and media which do not encourage active participation of students, and only to be passive listeners make the students to forget the application of the content taught to the practical situation.

Findings	Conclusion
The findings on the theoretical content revealed no significant difference with the clinical practice. The following content could be applied by the students when rendering family planning services namely: - Management of STDs, HIV/AIDS, - Breast self-examination, - respect for clients and - the method used to take cervical smears was explained to the clients when rendering family planning services.	Students could relate the theoretical content of AIDS/HIV and STDs to the clinical area may be because of the prevalence of those conditions and that everyone is talking about them and that clients also ask a lot about them. Students could advice clients on self examination of the breast and the importance of taking cervical smears because the content was given in a form of a role play and a demonstration in the practical situation.

O **Recommendations**

● Tutors need to investigate the possibility of applying a problem-based and community-based curriculum because these are forms of experiential learning which emphasise the consistent integration of theory, skills and attitudes within the nursing profession (Van Niekerk & Van Aswegen 1993:37) "Problem-based learning is a process whereby a student learns by utilising a problem as a stimulus to discover the information needed to understand the problem and hasten the solution" (WHO 1987:49).

● The application of problem-based and community-based curriculum will encourage shifting from a block sysstem which separates theory from practica to a more community-based and problem-based curriculum so that the too idealistic curriculum

be implemented in the community.

● Problem-based learning ensures (1) that the curriculum is organised around problems rather than discipline, (2) that the curriculum is an integrated one rather than one which is separated into clinical and theoretical components, and (3) there will be an inherent emphasis on psychomotor skills as well as on knowledge (Bruhn 1992:161). Community-based teaching involves addressing problems *in* the community. It is therefore effective if is used as an integrated curriculum. An integrated curriculum will therefore encourage a holistic approach to nursing care and enhance the integration of theory and practice.This means that family planning as a component of Community Nursing Science will be integrated with General Nursing, Midwifery and Psychiatric nursing.

● Self-directed and self-reflective learning abilities, motivation for learning, and practice-based and cooperative learning develop among students who are exposed to problem-based learning as they are active participants in the learning process (Van Niekerk & Van Aswegen 1993:37). The development of analytical and creative thinking skills occurs as the student reflects on the experience which she or he obtains in family planning (this is shown in Kolb's Learning Cycle, figure 2.1, in chapter 2).

5.2.2   **The extent to which teaching strategies and media are utilised and how clinical teaching may be performed to enhance the integration of theory and practice**

The effective use of teaching strategies and media play a major role in enhancing the integration of theory and practice. The way in which clinical teaching is done also makes an impact on the integration of theory and practice. What follows is a discussion on the findings,

Table 5.2 Teaching strategies, media and clinical teaching

Findings	Conclusion
Teaching strategies The following teachiing strategies are fully used (100%) by the tutors: demonstration, simulation, lecture and workbooks	Demonstration, simulation and workbooks are commonly used in teaching of family planning due to the need to teach practical skills to allow that the students practice and be exposed to the clinical facilities. The use of the demonstration and simulation is 100% because of the presence of preceptors in the clinical areas who are solely responsible for clinical teaching. The fact that nursing deals with human life, there are skills which cannot be done in the real situation but first need practice before the real encounter with the patients as indicated by Stevenson (1996:55). Workbooks on the other hand are used 100% because they are simple to prepare and are necessary to guide students (as they provide objective) in the clinical area so that they know what is expected from them. The workbook makes the load of clinical teaching to be light as there less teaching. The reason for continual use of the lecture could be because it is easy and simple to prepare, one can teach a large group of students and finish the workload within a short time (Mellish, Brink & Paton 1998:102). Use of the lecture in teaching of family planning could be because it is the best known teaching strategy by the tutors concerned. (Cust 1995:281) indicated that the lecture method encourages rote learning and students will therefore not be able to reflect on previous experiences. This merely increases problems of integrating theory and practice.
Findings Role play indicated a 65% positive response in its use for teaching family planning.	**Conclusion** Role play was supposed to be used more frequently than this to ensure development of problem-solving skills and the enhancement of concrete learning experiences. Not all people like using a role play as a teaching strategy because it needs a lot of preparation, involvement of students in setting scenarios and that tutors may not be so well conversant with its use.

Findings	Conclusion
The teaching strategies, least used even below 40% are the following: small group discussion (27,5%) and problem-based teaching (12,5%)	The reason for not using small group discussion and problem-based teaching frequently could be because extensive preparation is necessary in order to expose students to problem-solving scenarios which could be solved through the use of small group discussions. Problem-based teaching seems to be an unpopular teaching strategy amongst tutors and preceptors because they are not well conversant with the strategy as they were not taught during their training.

According to Kolb's Experiential Learning Cycle, which was referred to in chapter 2, figure 2.1, the following teaching strategies could enhance the integration of theory and practice:

● Role play, simulation, case study and demonstration enhance concrete experience. Concrete knowledge involves practical knowledge and concrete experiences develop through exposure to practical situations rather than to theory alone.

● Problem-solving and case studies enhance reflective observation because these focus more on theoretical knowledge.

● Small group discussion and lectures enhance abstract conceptualisation and focus more on theoretical knowledge.

● Demonstration and problem-solving enhance active experimentation and the practical application of procedural knowledge.

O **Recommendations**

● The teaching strategies must be congruent with the curriculum, tutor, content and

learner. Should the curriculum be problem- and community-based, the teaching strategies which are used should address the needs that arise in a problem- and community-based curriculum The following teaching strategies could be introduced:

-problem- based teaching to develop problem solving skills for example refusal of a spouse to use family planning services,

-project on preparation of health education to clients who are using oral cotraceptives to enhance student-centered teaching

-small group discussion on the indications and contraindications of a method of family planning

- role play on counselling of a client on the choice of a method of family planning

-demonstration on how to doself examination of the breast,

-simulation on how to use the condom

-values clarification to enhance students to think about their value systems, beliefs and practices, and

-workbooks to be used to indicate the different services rendered to clients who needed family planning services under supervision of a professional nurse to ensure clinical exposure.

● A variety of teaching strategies should be emphasised and encouraged because students differ in their preferred learning styles and capacities (WHO 1987:23).

Teaching strategies should accommodate the different learning styles of students, Thus, for example, while concrete learners (divergers and accommodators) cope best with small group discussions, role play, problem-solving sessions and audio-visual simulations, convergers cope best with problem-solving demonstrations and clinical placements. Assimilators, finally, cope best in seminars, the writing of papers and formal lectures (Laschinger1990:983 and Hodges 1988:344).

- Other teaching strategies which tutors should use to enhance problem-solving skills are ward rounds, seminars, clinical conferences, case presentations, learning packages and the use of community resources by involving the community to teach others on the importance of family spacing.

- The use of the above-mentioned teaching strategies will enable a balance to be maintained between theoretical and clinical teaching. The teaching strategies enhance experiential learning as the student progresses through Kolb's learning cycle from concrete experience through to active experimentation (see figure 2.1).

- In-service training and discussion groups on the use of different teaching strategies could be done to update tutors, preceptors and other professional nurses in the wards to enhance knowledge on the different teaching strategies.

- Workshops should be conducted on the use of problem based teaching , projects, learning packages and other teaching strategies which tutors are not sure of.

Findings	Conclusion
Media	
The most commonly used teaching media for family planning indicated a 100% response on the use of charts, realia used in family planning and clinics as areas of clinical experiences for the students.	Charts and realia in family planning were used to enhance teaching so that students could be able to build a linkage between theory and practice. When students use their sense of sight, touch and hearing, learning is enhanced that is why the charts and different types of methods of family planning (Oral contraceptives, Injectables,Diaphragm, Condoms and IntraUterine Contraceptive Device) were used during teaching of family planning.

O   **Recommendations**

● Tutors need to use teaching media such as videotapes, slides and audio tapes. If those facilities are not available, a motivation to purchase them should be written.

● Computer-assisted learning programmes should be introduced to encourage self-directedness in students (Hengstberger & McMillan 1992:76). That is students could be exposed to the use of computers.

Findings	Conclusion
Clinical Teaching	
Figure 4.3 on clinical teaching indicate that only preceptors seems to be committed to do clinical teaching as a response of (100%) was shown. Whilst on the other hand, tutors and professional nurses indicated a (65%) response on clinical teaching and junior members of staff indicated a (45%) positive response rate.	Preceptors are fully involved in clinical teaching, this shows that at least students receive some guidance in the clinical area. Preceptors avail themselves for clinical teaching because they are specifically appointed to do clinical teaching. Tutors are supposed to avail themselves for clinical teaching, although most time is spent in theory rather than clinical situation because they give first preference to theory. Professional nurses may not be involved in clinical teaching because of their excessive workload or because they may not be involved by the college to undertake teaching and not told what students should do. This clearly indicates that there are problems in maintaining the proper balance between clinical and theoretical teaching and therefore of integration of theory and practice. Junior members of staff could only provide very limited clinical teaching as they have not been prepared for this educational role.

○ **Recommendations**

● Holbert and Thomas (1988:31) indicated that there should be a *balance* between theoretical and practical learning so as to ensure integration of theory and practice (theory and practice ideally complement each other). Time available should be spent in the clinical area rather than in the classroom because this would encourage the use of other teaching strategies such as problem solving, case study, projects and demonstration.

● Intersectoral collaboration between college tutors and preceptors and professional nurses in the clinical area should be developed so as to ensure involvement of everyone who has a responsibility for clinical teaching in the clinical area. This will ensure involvement of professional nurses in clinical teaching as they will be able to fit clinical teaching to their daily programme of providing care thus bringing in a balance between clinical teaching and their routine.

● An annual teaching programme for tutors doing clinical teaching should be drawn to indicate the clinical areas where clinical teaching is done. The programme should indicate clinical areas which need to be visited, the number of students and the frequency of visits. This will give an indication on how much clinical teaching is done during that year. This will encourage full involvement of tutors in clinical teaching

● Professional nurses and preceptors should teach students theory and tutors should be allocated in the clinical areas to render nursing care, this will benefit both parties as both will gain experience of teaching, nursing care and clinical teaching respectively.

5.2.3 The extent to which clinical evaluation influences the integration of theory and practice

Findings	Conclusion
Types of formative and summative evaluation. Evaluation on the spot was not ussually done for formative evaluations. Summative evaluations was not done on the spot. Evaluation of one full skill was done.	Evaluation on the spot was not usually done because tutors, preceptors and ward staff were probably not orientated to undertake such evaluations.This could be due to a lack knowledge,or that there are no objectives to guide them. Summative evaluation is planned and therefore it is not done on the spot. The OSCE as an evaluation method could be used to assess parts of specific skills. The evaluation of one full skill could be done to assess whether students are able to render comprehensive nursing care.

Table 5.3 The extent to which clinical evaluation influences the integration of theory and practice

O   **Recommendations**

● Evaluations on the spot during continuous assessment (formative) should be done by preceptors, professional nurses and tutors. Discussion groups should be planned in order to agree with the specific persons involved in clinical teaching on how to execute on the spot evaluation.

Findings	Conclusion
Formal feedback on evaluation Written reports were not done for both formative and summative evaluations. Oral reports were given 100% during formative evaluations. During summative evaluations oral reports were not given	Written reports during formative evaluations were not given because it might be time consuming. Oral reports during formative evaluations were given and this may be easier to prepare than a written report. During summative evaluations it was necessary to give written as well as oral reports in order to give academic guidance regarding areas which need more practice.

O **Recommendations**

● Feedback on formative evaluation should be given to students through oral and written reports.

● Senior students should play an active role in providing peer evaluation as this forms part of their professional development. Formal reports about students' performances should be given by tutors, preceptors, professional nurses and students.

● Supportive educational programmes should be put in place by tutors and preceptors, for example remedial teaching should be given to students who are experiencing difficulties while counselling of students should be readily available to students.

Persons responsible for formative and summative evaluations. Preceptors were fully involved in formative and summative evaluations. Tutors were apparently not fully (67,5%) involved in formative evaluation and were only involved during summative evaluations.	Preceptors are employed to do all the evaluations. Tutors may be having problems in doing formative evaluations because they do not have time. Summative evaluations are planned and tutors can plan their times for those periods.

O **Recommendations**

● Tutors should be involved in formative evaluations, a programme should be drawn for the whole year to indicate their involvement in clinical teaching.

● A year programme should be planned to give the tutors the opportunity to plan their time tables.

● This year plan should also include time for meetings and orientation for preceptors, professional nurses and other persons concerned in clinical teaching.

Findings	Conclusion
Venues for formative and summative evaluations. Clinics in both formative and summative evaluations indicated a 100% use, while the hospitals and the demonstration room were not commonly used as a facility for both formative and summative evaluations.	Clinics were the most commonly used facility for evaluations as this was done when the students were in the clinics for their clinical learning experiences, therefore students were evaluated in an environment which they are familiar with. Hospitals and demonstration rooms were not used as this could create an artificial situation as their area of allocation was mostly at the clinics.

O   **Recommendations**

● Venues for evaluations should simulate a real situation as far as possible and their places of allocation, should be clinics where clients are available, rather than using a demonstration room.

● The use of clinical laboratory is very important as the novice student need to practice for example the insertion of IUCD firstly before going to the real situation that is the clinic.

Findings	Conclusion
Techniques for evaluation All techniques for evaluation were commonly used as they indicated a 100% response, they are as follows: Project, Nursing Care Plan, Case Study, OSCE and Workbooks.	All the most common evaluation techniques were mostly used, which means that students were exposed to the different forms of evaluation.

O **Recommendations**

● Clinical evaluation should focus on competencies rather than procedures alone. One such a competency evaluation method is on the spot evaluation.

● A variety of evaluation techniques could be used to ensure assessment of the ‚competency of a student.

5.2.4 The influence of accompaniment on the integration of theory and practice

In the literature, Garbett (1995:77), Ferguson and Jinks (1994:688), Bailie (1994:156) and Fawcett and McQueen (1994:266) have described the different problems of accompaniment which are encountered by tutors in the clinical setup. Their findings concur with the findings indicated below.

Table 5.4	The influence of accompaniment on the integration of theory and practice
Findings	**Conclusion**
Persons responsible for accompaniment From the findings preceptors were mostly involved in accompaniment (100%) whilst tutors were only involved (67,5%) of their time.	Preceptors are assigned to do accompaniment as they are readily available in the clinical areas where students are allocated. Tutors could not be fully involved in accompaniment due to a lack of time, knowledge on the practical skills as well as a lack of confidence to execute skills in the clinical areas.

O **Recommendations**

● Tutors need to plan a programme for accompaniment of students in the clinical area.
● Preceptors and professional nurses should update tutors on the latest skills in family planning

Types of accompaniment strategies Demonstration, bedside teaching and teaching in the clinics were most commonly (100%) used. Lecturing was not frequently used during students' accompaniment.	Accompaniment revolves around demonstrating and teaching in the clinical situation.

O **Recommendation**

● Accompaniment strategies such as : questioning, ward rounds, case studies, patient counselling and health education should be used.

The accompaniment programme	Tutors do not have enough time to fulfill
The findings indicated that accompaniment was mostly (100%) done once a month by tutors.	their accompaniment task on weekly basis. .

O **Recommendations**

● A programme for accompaniment should be planned for a year. Tutors, preceptors, ward staff and students should be involved in this planning process.

● Tutors, preceptors, ward staff and students should all be involved in planning learning objectives and opportunities for the students. Learning experiences in the clinical area should meet the needs of the students as well as the minimum requirements of the SANC.

5.2.5. The extent to which the clinical environment contributes to integration of theory and practice

A clinical learning environment which is conducive to learning is of paramount importance in securing the required teaching and learning processes of students. The clinical area should therefore provide students with an environment in which they could enjoy learning opportunities which are based on the principles of experiential learning (Chun-Heung & French 1997:460).

Table 5.5 The extent to which the clinical environment contributes to integration of theory and practice	
Findings	**Conclusion**
Learning experiences available for students Learning experiences such as ward rounds (60%), seminars (15%), clinical conferences (30%) and case presentations (62%) to enhance clinical learning were not optimally utilised for students	Due to lack of a well- planned programme learning experiences are thus not fully accommodated.
Areas where students were allocated Students were allocated to the clinics, antenatal, postnatal and outpatient departments and those facilities were the most commonly used (100%). Psychiatric clinics were not frequently (67,5%) used as indicated in fig 4.6.	These facilities were indicated in the curriculum. When students are allocated in the psychiatric wards- the emphasis is on psychiatric nursing and not on family planning.

O   **Findings and conclusion**

Findings with regard to the extent to which the clinical environment contributes to the integration of theory and practice indicated the following (this information was obtained from preceptors and other professional nurses who are involved in teaching) during the interview:

- Since most of the time available for clinical learning was used to transport students to their area of allocation, the time which students actually spent in the area was shortened. This made a negative impact on the integration of theory and practice.

- Some professional nurses were not keen to teach students who had been allocated to their sections. These findings are supported by those of Garbett (1995:76), who found that professional nurses were not interested in teaching because they were not adequately prepared for the teaching role.

- Good staff relations between college tutors and other professional nurses in the clinical area enhance effective clinical teaching. These findings are confirmed by Wilson and Startup (1991:1479), who are of the opinion that good staff relationships and a favourable ward climate are essential if effective learning is to take place.

- The availability of staff (personnel) enhances the effective clinical teaching of students – and therefore the effectiveness of integration of theory and practice. This supports the findings of Ferguson and Jinks (1994:688), Lathlean (1992:236) and McCaugherty (1991:1061), who all found that students receive very little supervision from either tutors and ward sisters because a lot of teaching is delegated to ward staff. Since wards are already short-staffed, ward staff give priority attention to their own (increased) workloads rather than to the teaching of students.

- The number of students allocated to each clinical area exerted an influence on guidance and supervision. If the group being taught is too large, it becomes difficult for individuals to learn. These findings concur with those of Gibbon and Kendrick (1996:52), who recommended that the number of students allocated to a clinical area should be controlled so that overcrowding could be avoided, thereby making the teaching and learning environment more effective.

- The interest that students have in learning also plays a major role in influencing clinical teaching because a student who is curious will gain more than the one who is indifferent.

O **Recommendations**

● Focussed research needs to be undertaken regarding accompaniment, strategies as well as the venues where clinical experience were to take place.

● In-service training, workshops and group discussions needs to be done to update tutors, preceptors and professional nurses on the provision of different learning experiences.

● Tutors and hospital management should create an environment which is conducive to clinical learning. This can be done through the collaborative efforts between managers and college tutors – a process that could make nurse managers aware of the needs of students during the clinical placement. Nurse managers should therefore be involved in curriculum planning and development.

● Other members of the multi-disciplinary team (primary health care providers) should also undergo orientation so that they can also become a part of the process of student education and accompaniment.

● Clear guidelines/objectives for clinical teaching should be formulated by the tutors and the preceptors in the clinical area concerned. This will encourage involvement in clinical teaching.

● Tutors, nurse managers and students should draw up the allocation programme (for the students) which would avoid any overcrowding of the clinical environment.

5.2.6 The influence of the educational preparation of staff on the teaching of nursing students

Tutors need to be highly skilled if they are to ensure effective clinical teaching. The need for clinical specialisation is of paramount importance for the enhancement of confidence in the teaching of clinical skills.

Table 5.6 The influence of educational preparation of staff	
Findings	Conclusion
Findings from this research (refer to table 4.7 chapter 4) indicated that tutors and preceptors do not all have a clinical specialisation qualification in family planning services. It was also found that no in-service education programmes were in place to keep the tutors up to date with latest information and research findings in family planning.	Specialised knowledge in family planning could enhance effective teaching in the clinical situation.
Findings Findings in management of STDs, HIV/AIDS indicated no significant difference between knowledge of theory and its application to practice.	**Conclusion** Tutors on the other hand possess the latest information about the management of STDs and HIV/AIDS,

O **Recommendations**

● Continual updating of tutors, preceptors and ward staff through attendance formal courses, workshops, conferences, seminars and symposia would assist in creating self-confidence in staff and this would improve clinical teaching.

● An in-service training programme for professional nurses and preceptors who are uninformed about different teaching strategies and evaluation methods would create self-confidence and so facilitate clinical teaching.

- There is a need for an (at least two-week) clinical specialisation course in family planning for those (including tutors, preceptors and ward staff) who do not have primary health care. This would ensure effective clinical teaching.
- Tutors could pass knowledge of management of STDs and HIV/AIDS on to professional nurses in the context of in-service education programmes.
- If tutors were encouraged to engage in research in family planning issues this could result in comprehensive family planning services which are rendered to all clients.

5.2.7. The use of the demonstration room for teaching of skills

Although the demonstration room is available for teaching of family planning skills at the college, it does not cater for all the learning needs of all students. Students need to be given access to the demonstration room whenever they need to do so. Stevenson (1996:55) recommended that colleges should revive training rooms as skills laboratory. In such rooms students would be able to practise their skills in a way that would not endanger the safety of patients. Constant use of a demonstration room would maximise concrete experiences such as practice. This, in turn, would influence the integration of theory and practice which was referred to in chapter 2 (figure 2.1).

Lack of enough facilities in the demonstration room may be due to lack of funds in the budget or lack of knowledge regarding the facilities that is needed for teaching and learning.

O **Recommendations**

- Nursing colleges need to prioritize the facilities for family planing such as : demonstration rooms, skills laboratories, computer and media centres, audio-visual

centres and library

5.3 LIMITATIONS OF THE STUDY

This study was subject to the following limitations:

● This study was conducted during the process that rationalised the three nursing colleges founded by the pre-1994 government by combining them into one college. This process of rationalisation led to changes in the curriculum which ensured that the curriculum of the college was standardised and made uniform with the curriculum of other nursing colleges. Since this study was predicated on the old curriculum that existed before this rationalisation took place, various changes (such as those recommended in this research) might already have taken place.

● The study was limited in scope to the family planning aspect of Community Health Science. It took no cognisance of other fields such as General Nursing Science, Midwifery and Psychiatric Nursing.

● Findings from the research could not be generalised to other campuses within the province because the study focused only on one campus and its clinical area.

5.4 IMPLICATIONS OF THE STUDY

The findings of the study yielded the following implications that are applicable to the teaching and learning situations:

● A consideration of the findings confirms that effective clinical teaching, accompaniment, teaching strategies that encourage the participation of students and evaluation are important areas which enhance the integration of theory and practice

in the rendering of family planning services. Because of this, tutors, preceptors and ward staff have to be accountable and share responsibility for all aspects of nurse training. All teaching staff need to cooperate with each other in the performance of clinical teaching, accompaniment and evaluation.

● Because it is desirable that students be given responsibility for their own learning, they should also be involved in the planning process. The process itself should be learner-driven and tutors should merely act as facilitators of the process.

● Nurse educators need to realise that the lecture method is redundant in a setting where one is using problem-based and community based approaches to education. The lecture method should only be used to introduce a topic.

5.5 RECOMMENDATIONS

In the light of the findings, the researcher makes the following recommendations:

5.5.1 Research

Much more research (which is also broader in scope) needs to be done to identify further problems in integrating theory and practice within the whole province. Research in areas such as General nursing science, Midwifery, Biological sciences and Psychiatry need to be done to investigate whether there are problems in integrating theory and practice. Now that the process of rationalisation has been completed, it is necessary to find out whether the problems that beset the pre-rationalisation era still persist and what kind of action is required to resolve such problems (and any new ones that might have arisen as a result of rationalisation). In a more general sense, research needs to be carried out in all areas of student learning to find out whether or not other students experience the same problems.

5.5.2 Nursing Education

● The results of this study may be used as a basis for instituting curriculum changes as the old curriculum is transformed into a problem-based and community-based curriculum. Kolb's Experiential Learning Cycle can *mutatis mutandis* be applied to improve and enhance clinical teaching in any area of nursing speciality. Attention should be given to the alternative teaching strategies and evaluation strategies that could be used.

● This research can be used to guide nurse educators who are planning clinical teaching programmes. If nurse educators are made aware of problems inherent in the old way of doing things, they might be able to forestall them before they arise. This research may make nurse educators, preceptors and ward staff aware of the importance of involving students in the structuring and methodology of teaching and learning and of the collaborative efforts they need to make to ensure that clinical teaching and learning is improved and made more efficient and accessible to students.

● This research could be used as a basis for changing educational training programme for tutors to reorientate them on the use of different teaching strategies and encourage bedside teaching and learning.

5.6 CONCLUSION

In conclusion the overall objectives of this study were to audit the curriculum and to ascertain whether what is required by the curriculum is actually being applied in the clinical situation because such information will have a direct bearing on the problems that beset the integration of theory and practice. The following objectives were met:

- determine whether the curriculum for family planning allows for the integration of theory and practice
- identify teaching strategies that might enhance the integration of theory and practice during teaching of family planning
- identify the problems which arise out of current evaluation methods used in family planning
- determine whether there were any problems encountered during accompaniment of students when rendering family planning in the clinical area
- identify whether a lack of specialisation in the field of family planning could have a negative impact on teaching of nursing students
- determine whether the clinical situation for family planning was conducive to effective integration of theory and practice
- determine whether preceptors and mentors in family planning were utilized in such a way as to ensure an effective integration of theory and practice
- determine whether the clinical laboratory was fully equipped with the necessary facilities for effective teaching of family planning.

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ANNEXURE A

Names of hospitals and a campus

selected for the study

HOSPITALS AND A CAMPUS

SELECTED FOR THE STUDY

Hospitals

1   =   Donald Fraser

2   =   Siloam

3   =   Tshilidzini

Campus

X   =   Thohoyandou Nursing Campus

ANNEXURE B

Observation Schedules for

Theory and Practica

SCHEDULE **THEORY / CURRICULUM**			
1 CURRICULUM			
1 Are the following aspects included in the curriculum on family planning according to SANC guidelines?	**YES**	**NO**	[1] 4
1.1 Related anatomy and physiology			5
1.2 Pharmacology			6
1.3 Culture	**YES**	**NO**	
1.3.1 Beliefs			7
1.3.2 Practices			8
1.4 Administration and management			9
1.5 Value systems	**YES**	**NO**	
1.5.1 Respect			10
1.5.2 Value system			11
1.6 Ethical issues	**YES**	**NO**	
1.6.1 Religious affiliation			12
1.6.2 Right to information			13
1.6.3 Consent of spouse on choice of a method			14
1.7 Management of STDs			15
1.8 Management of HIV and AIDS			16
1.9 Breast self-examination			17
1.10 Cervical smears: Method of taking			18
1.11 Health education			19
1.12 Counseling skills for family planning			20
1.13 Emergency contraception			21
1.14 Sex education			22

	YES	NO	
1.15 Any other (specify)			23
			24
1.16 Legal issues on family planning	YES	NO	
1.16.1 Scope of practice			25
1.16.2 Termination of Pregnancy Act			26
1.16.3 Human Rights			27
1.16.4 Any other legislation (specify)			28
			29
			30

2 TEACHING STRATEGIES AS INDICATED ON THE CURRICULUM			
2.1 During teaching of family planning which of the following strategies are used?	**YES**	**NO**	
2.1.1 Role play			31
2.1.2 Small Group Discussion			32
2.1.3 Demonstration			33
2.1.4 Simulation			34
2.1.5 Lecture			35
2.1.6 Workbooks			36
2.1.7 Problem-based teaching			37
2.1.8 Any other teaching strategies indicated (Specify)			
			38
			39
			40
2.2 Which of the following teaching media are used?	**YES**	**NO**	
2.2.1 Charts			41
2.2.2 Realia used in family planning			42
2.2.3 Slides			43
2.2.4 Cassette on counseling of a client on the choice of a family planning method			44
2.2.5 Field trips	**YES**	**NO**	
* rural			45
* clinics			46
* out patient department			47
2.2.6 Any other teaching media indicated? (Specify)			
			48
			49
			50

2.3 TIME SPENT IN THE THEORETICAL AREA			[ ][ ][ ] 1 - 3
2.3.1 State the time used for theory instruction:	YES	NO	[2] 4
2.3.1.1 Four Weeks			5
2.3.1.2 Six Weeks			6
2.3.1.3 Eight Weeks			7
2.3.1.4 Any other (specify)			8
			9
2.4 Is teaching in the theoretical area influenced by the following?	YES	NO	
2.4.1 Heavily structured time-table			10
2.4.2 Clearly stated objectives			11
2.4.3 Formal teaching styles			12
2.4.4 Consideration of individual differences in learning			13
2.4.5 Any other (Specify)			14
			15
			16
2.5 Does the curriculum indicate who should be responsible for teaching of family planning?	YES	NO	
2.5.1 Preceptors/Mentors			17
2.5.2 Tutors			18
2.5.3 Professional nurses in-charge			19
2.5.4 Junior members of staff			20
2.5.5 Others (Specify)			21
			22
			23
3 CLINICAL EVALUATION PROVIDED FOR IN THE CURRICULUM	YES	NO	
3.1 Is there any indication for clinical evaluation?			24

		YES	NO	
3.1.1	**What types of formative evaluations are stipulated in the curriculum?**	**YES**	**NO**	
3.1.1.1	On the spot evaluation			25
3.1.1.2	Evaluation on one full skill			26
3.1.1.3	Objectively Structured Clinical Examination			27
3.1.1.4	Any other (Specify)			28
				29
				30
3.1.2	**What types of summative evaluations are stipulated in the curriculum?**	**YES**	**NO**	
3.1.2.1	On the spot evaluation			31
3.1.2.2	Evaluation on one full skill			32
3.1.2.3	Objectively Structured Clinical Examination			33
3.1.2.4	Any other (Specify)			34
				35
				36
3.2 Formal feedback on evaluation				
3.2.1	**What formal feedback on formative evaluation is stipulated?**	**YES**	**NO**	
3.2.1.1	Written reports			37
3.2.1.2	Oral reports			38
3.2.1.3	Any other (Specify)			39
				40
				41
3.2.2	**What formal feedback on summative evaluation is stipulated?**	**YES**	**NO**	
3.2.2.1	Written reports			42
3.2.2.2	Oral reports			43
3.2.2.3	Any other (Specify)			44
				45
				46

		YES	NO	
3.3	**Whom of the following does the curriculum stipulate to do formative evaluation?**			
	3.3.1 Tutors			47
	3.3.2 Preceptors			48
	3.3.3 Any other (specify)			49
				50
				51
3.4	**Whom of the following does the curriculum stipulate to do summative evaluation?**	YES	NO	
	3.4.1 Tutors			52
	3.4.2 Preceptors			53
	3.4.3 Any other (specify)			54
				55
				56
3.5	**Is the venue for evaluation stipulated in the curriculum?**			57
3.5.1	**Which areas are indicated to use for formative evaluations?**	YES	NO	
	3.5.1.1 Hospitals			58
	3.5.1.2 Clinics			59
	3.5.1.3 Demonstration room			60
	3.5.1.4 Any other (specify)			61
				62
				63
				64
3.5.2	**Which areas are indicated to use for summative evaluations?**	YES	NO	[ ][ ][ ] 1 - 3 [3] 4
	3.5.2.1 Hospitals			5
	3.5.2.2 Clinics			6
	3.5.2.3 Demonstration room			7

	YES	NO	
3.5.2.4 Any other (Specify)			8
			9
3.6 What techniques for evaluation are stipulated?	**YES**	**NO**	
3.6.1 Projects			10
3.6.2 Nursing Care Plans			11
3.6.3 Case study			12
3.6.4 Objective Structured Clinical Examination (OSCE)			13
3.6.5 Workbooks			14
3.6.6 Any other (specify)			15
			16
			17
4 ACCOMPANIMENT			
4.1 Who is indicated to be responsible for doing accompaniment?	**YES**	**NO**	
4.1.1 Preceptors			18
4.1.2 Tutors			19
4.1.3 Others (specify)			20
			21
			22
4.2 What type of accompaniment is indicated?	**YES**	**NO**	
4.2.1 Demonstrating			23
4.2.2 Lecturing			24
4.2.3 Bedside teaching			25
4.2.4 Out of the ward e.g. demonstration room			26
4.2.5 Any other (Specify)			27
			28

4.3 Frequency of accompaniment in the clinical area			
4.3.1 Is there a policy regarding planned times of accompaniment stipulated?	YES	NO	
4.3.1.1 Daily for 4-6 hours			29
4.3.1.2 Once a week (one day a week)			30
4.3.1.3 Monthly (once a month)			31
4.3.1.4 Any other (specify)			32
			33
			34
5 CLINICAL SITUATIONS TO WHICH STUDENTS ARE ALLOCATED	YES	NO	
5.1 Are the areas which students should have clinical practica indicated in the curriculum?			35
5.1.1 Are the students allocated to the following areas?	YES	NO	
5.1.1.1 Clinics			36
5.1.1.2 Antenatal and Postnatal clinics			37
5.1.1.3 Out Patients Department			38
5.1.1.4 Psychiatric clinics			39
5.1.1.5 Any other (specify)			40
			41
			42
5.2 The availability and accessibility of clinical learning experience			
5.2.1 Are the following learning experiences indicated in the curriculum for the students? (attendance of)	YES	NO	
5.2.1.1 Ward rounds			43
5.2.1.2. Seminars			44
5.2.1.3 Clinical conference			45
5.2.1.4 Case presentations			46
5.2.1.5 Any other (Specify)			47
			48
			49

6	EDUCATIONAL PREPARATION OF STAFF			
6.1	**Educational specialization of staff**			
6.1.1	Are the following educational requirements by the SANC?	YES	NO	
	6.1.1.1 Course on Family planning			50
	6.1.1.2 Management of STDs and HIV\AIDS			51
	6.1.1.3 In-service education			52
	6.1.1.4 Any other (Specify)			53
				54
				55
7	DEMONSTRATION ROOM / CLINICAL NURSING LABORATORY	YES	NO	
7.1	Does the curriculum imply that the college must have a clinical laboratory ?			56
7.2	Are the following demonstration room facilities documented in the curriculum?	YES	NO	
7.2.1	Doll			57
7.2.2	Injectables			58
7.2.3	Oral Contraceptives			59
7.2.4	BP Apparatus			60
7.2.5	Scale			61
7.2.6	Any other (Specify)			62
				63
				64

OBSERVATION SCHEDULE PRACTICAL / CLINICAL AREA			For office use only [ ][ ][ ] 1 - 3
1 Are the following aspects taught in the clinical area as stipulated in the curriculum on family planning according to SANC guidelines?	**YES**	**NO**	[1] 4
1.1 Related anatomy and physiology			5
1.2 Related pharmacology			6
1.3 Culture	**YES**	**NO**	
1.3.1 Beliefs			7
1.3.2 Practices			8
1.4 Administration and management of a family planning clinic/unit			9
1.5 Value systems	**YES**	**NO**	
1.5.1 Respect			10
1.5.2 Indication of type of value systems taught			11
1.5.3 Other			12
			13
1.6 Ethical issues	**YES**	**NO**	
1.6.1 Religious affiliation			14
1.6.2 Right to information			15
1.6.3 Consent of a spouse on choice of a method			16
1.7 Management of STDs			17
1.8 Management of HIV/AIDS			18
1.9 Breast self-examination			19
1.10 Cervical smears	**YES**	**NO**	
1.10.1 Method of taking			20
1.10.2 Refferal system if any			21
1.11 Health Education (If Yes specify)			22
			23

			24
1.12 Counseling skills for family planning			25
1.13 Emergency contraception			26
1.14 Sex education			27
1.15 Any other (specify)			28
			29
1.16 Legal issues on family planning	**YES**	**NO**	
1.16.1 Scope of practice			30
1.16.2 Termination of Pregnancy Act			31
1.16.3 Human Rights			32
1.16.4 Any other legislation (specify)			33
			34
			35
2 TEACHING STRATEGIES AS INDICATED ON THE CURRICULUM			
2.1 During teaching of family planning, are the following strategies used?	**YES**	**NO**	
2.1.1 Role play			36
2.1.2 Small Group Discussion			37
2.1.3 Demonstration			38
2.1.4 Simulation			39
2.1.5 Lecture			40
2.1.6 Workbooks			41
2.1.7 Problem-based teaching			42
2.1.8 Any other teaching strategies indicated (Specify)			
			43
			44
			45
2.2 Which of the following teaching media are used?	**YES**	**NO**	
2.2.1 Charts			46

			YES	NO	
	2.2.2	Realia used in family planning			47
	2.2.3	Slides			48
	2.2.4	Cassette on counseling of a client on the choice of a family planning method			49
	2.2.5	Field trips	YES	NO	
		* rural			50
		* clinics			51
		* out patient department			52
	2.2.6	Any other teaching media which are used? (Specify)			53
					54
					56
2.3	**Which of the following persons contribute to the clinical teaching of family planning?**		**YES**	**NO**	[ ][ ][ ] 1 - 3 [2] 4
	2.3.1	Preceptors/Mentors			5
	2.3.2	Tutors			6
	2.3.3	Professional nurses in-charge			7
	2.3.4	Junior members of staff			8
	2.3.5	Others (Specify)			9
					10
					11
2.4	**Which factors could influence clinical teaching / teaching time?**		**YES**	**NO**	
	2.4.1	Time spent during transportation of students			12
	2.4.2	Interest of professional nurses in clinical teaching			13
	2.4.3	Effectiveness of clinical accompaniment			14
	2.4.4	Good staff relationships			15
	2.4.5	The availability of manpower			16
	2.4.6	Number of students allocated in each clinical area			17
	2.4.7	Any other (Specify)			18

			19
			20

3	**CLINICAL EVALUATION**			
3.1	**Which of the following types of formative evaluation are used in the clinical area?**	**YES**	**NO**	
	3.1.1 On the spot evaluation			21
	3.1.2 Evaluation on one full skill			22
	3.1.3 Objectively Structured Clinical Examination			23
	3.1.4 Any other (Specify)			24
				25
3.2	**Which of the following types of summative evaluation are used in the clinical area?**	**YES**	**NO**	
	3.2.1 On the spot evaluation			26
	3.2.2 Evaluation on one full skill			27
	3.2.3 Objectively Structured Clinical Examination			28
	3.2.4 Any other (Specify)			29
				30
				31
3.3	**Formal feedback on evaluation**			
	3.3.1 How is formal feedback on formative evaluation given?	**YES**	**NO**	
	3.3.1.1 Written reports			32
	3.3.1.2 Oral reports			33
	3.3.1.3 Any other (Specify)			34
				35
				36
	3.3.2 How is formal feedback on summative evaluation given?	**YES**	**NO**	
	3.3.2.1 Written reports			37
	3.3.2.2 Oral reports			38
	3.3.2.3 Any other (Specify)			39

			40
			41
3.4 Who is involved in doing formative evaluation?	**YES**	**NO**	
3.4.1 Tutors			42
3.4.2 Preceptors			43
3.4.3 Any other (specify)			44
			45
			46
3.5 Who is involved in doing summative evaluation?	**YES**	**NO**	
3.5.1 Tutors			47
3.5.2 Preceptors			48
3.5.3 Any other (specify)			49
			50
			51
3.6 Venue for evaluation			
3.6.1 Which areas are used for formative evaluations?	**YES**	**NO**	
3.6.1.1 Hospitals			52
3.6.1.2 Clinics			53
3.6.1.3 Demonstration room			54
3.6.1.4 Any other (specify)			55
			56
			57
3.6.2 Which areas are used for summative evaluations?	**YES**	**NO**	
3.6.2.1 Hospitals			58
3.6.2.2 Clinics			59
3.6.2.3 Demonstration room			60
3.6.2.4 Any other (Specify)			61
			62
			63

		YES	NO	
3.7	**Which of the following techniques are used for evaluation?**			
	3.7.1 Projects			64
	3.7.2 Nursing Care Plans			65
	3.7.3 Case study			66
	3.7.4 Objective Structured Clinical Examination (OSCE)			67
	3.7.5 Workbooks			68
	3.7.6 Any other (specify)			69
				70

4	**ACCOMPANIMENT**			[ ][ ][ ] 1 - 3
4.1	**Who is responsible for doing accompaniment?**	YES	NO	[3] 4
	4.1.1 Preceptors			5
	4.1.2 Tutors			6
		YES	NO	
	4.1.3 Others (specify)			7
				8
4.2	**Which type of accompaniment is used?**	YES	NO	
	4.2.1 Demonstrating			9
	4.2.2 Lecturing			10
	4.2.3 Bedside teaching			11
	4.2.4 Out of the ward e.g. demonstration room			12
	4.2.5 Any other (Specify)			13
				14
				15
4.3.	**Frequency of accompaniment in the clinical area**			
	4.3.1 Is the indication of planned times of accompaniment followed?	YES	NO	
	4.3.1.1 Daily for 4-6 hours			16
	4.3.1.2 Once a week one day a week			17

4.3.1.3 Monthly once only			18
4.3.1.4 Any other (specify)			19
			20
4.4 What experiences are encountered during accompaniment?	**YES**	**NO**	
4.4.1 Feelings of being visitors in the clinical environment			21
4.4.2 Time constraints like ward routine			22
4.4.3 Lack of knowledge of skills and content pertaining to clinical situation			23
4.4.4 Any other (Specify)			24
			25

5 CLINICAL SITUATIONS TO WHICH STUDENTS ARE ALLOCATED			
5.1 Clinical areas			
5.1.1 To which of the following areas are students allocated ?	**YES**	**NO**	
5.1.1.1 Clinics			26
5.1.1.2 Antenatal and Postnatal clinics			27
5.1.1.3 Out Patients Department			28
5.1.1.4 Psychiatric clinics			29
5.1.1.5 Any other (specify)			30
			31
5.2 The availability and accessibility of clinical learning experience			
5.2.1 Are the following learning experiences available for the students attendance?	**YES**	**NO**	
5.2.1.1 Ward rounds			32
5.2.1.2 Seminars			33
5.2.1.3 Clinical conference			35
5.2.1.4 Case presentations			36
5.2.1.5 Any other (Specify)			37
			38
			39
6 EDUCATIONAL PREPARATION OF STAFF			
6.1 Do preceptors and mentors have the following specialties?	**YES**	**NO**	
6.1.1 Course on family planning			40
6.1.2 Management of STDs and HIV/ AIDS			41
6.1.3 In-service education			42
6.1.4 Any other (Specify)			43
			44
			45

7	**DEMONSTRATION ROOM / CLINICAL NURSING LABORATORY**			
7.1	**Where are the skills taught in the clinical situation?**	**YES**	**NO**	
	7.1.1 Demonstration room			46
	7.1.2 Wards			47
	7.1.3 Clinics			48
	7.1.4 Classrooms			49
	7.1.5 Any other (Specify)			50
				51
				52
7.2	**Are the following facilities in the demonstration room available for rendering of family planning services?**	**YES**	**NO**	
	7.2.1 Doll			53
	7.2.2 Injectables			54
	7.2.3 Oral Contraceptives			55
	7.2.4 BP Apparatus			56
	7.2.5 Scale			57
	7.2.6 Any other (Specify)			58
				59
				60

NORTHERN PROVINCE

DEPARTMENT OF HEALTH AND WELFARE

Enquiries: Sinah Mahlangu

Reference: Research & Quality Improvement

16 December 1999

University of Venda

School of Health Sciences

Private Bag X5050

THOHOYANDOU

Ms Maselesele

PROBLEMS OF INTEGRATING THEORY AND PRACTICE IN SELECTED CLINICAL NURSING SITUATIONS(THOHOYANDOU CAMPUS AND NURSING STUDENTS ALLOCATED TO TSHILIDZINI, DONALD FRASER AND SILOAM HOSPITALS.

1. Permission is hereby granted to conduct a study on the above topic in the district hospitals of the Northern Region of the Northern Province.

2. The Department of Health & Welfare needs a copy of the research findings for its own resource centre.

3. The researcher should be prepared to assist in interpretation and implementation of the recommendations where possible.

4. Implications: Permission should be requested from regional and institutional management to do research.

Sincerely,

SUPERINTENDENT - GENERAL
DEPARTMENT OF HEALTH & WELFARE
NORTHERN PROVINCE

ANNEXURE C

Letters of permission to conduct research

47 Aster Street
Louis Trichardt
0920
23. 09. 1999

The Deputy Principal
Thohoyandou Campus
P/Bag X919
Shayandima
0945

Madam

PERMISSION TO CONDUCT RESEARCH

MASTERS STUDY: PROBLEMS OF INTEGRATING THEORY AND PRACTICE IN
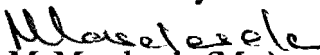SELECTED CLINICAL NURSING SITUATIONS.

I am a nurse educator at the University of Venda, doing Masters degree in nursing science.
The purpose of this study is to identify problems which students encounter whilst integrating
theory and practice.

The study involves observation of students who are doing the comprehensive course in the
clinical area to check whether they are able to provide holistic family planning services to clients
as taught.

Permission has been requested from the Superintendent General to collect the necessary data
from the Province.Could you allow me to observe the curriculum and the demonstration room?

A copy of schedule for practica and theory is enclosed.A report on the findings of the research
will be sent to your institution.

Yours sincerely

M. Maselesele (Mrs)
cell. 0822003157
(w) 015 9628125
(Fax) 0159624749
(e mail) mmasele @ caddy. univen.ac.za
Work address:University of Venda
        School of Health Sciences
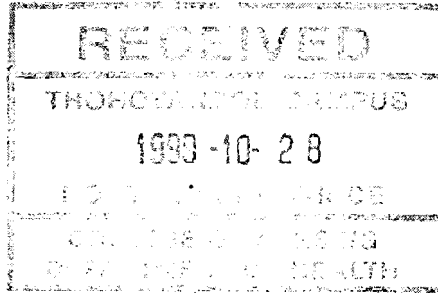   P/Bag X5050
        Thohoyandou
        0950

NORTHERN PROVINCE
DEPARTMENT OF HEALTH AND WELFARE
COLLEGE OF NURSING: THOHOYANDOU CAMPUS

TEL: (0159) 41516
FAX: (0159) 41517

PRIVATE BAG X919
SHAYANDIMA
0931

Enq: Netshilindi C.M

Tel: 015 9641516

Fax: 015 9641517

Mrs M. Maselesele

47 Aster Street

LOUIS TRICHARDT

0920

Dear Madam

PERMISSION TO RESEARCH ON : PROBLEMS OF INTEGRATING THEORY & PRACTICE IN SELECTED CLINICAL NURSING SITUATIONS.

1. The above matter has reference.

2.. Permission is granted to you to conduct a research at this institution.

3 The institution will appreciate it a lot, if at the end of the study you send us a copy.

4. The Management wishes the best of luck in your studies.

Thank you

pp eNetshu____or

PRINCIPAL

NORTHERN PROVINCE
HEALTH AND SOCIAL WELFARE

Tel No: 015 962 4051/6

Fax No: 015 962 4057

Donald Fraser Hospital
Private Bag X1172
VHUFULI
0971

Ref. No. : S5/1

Enq. : Mudau K.E.

Mrs M. Maselesele
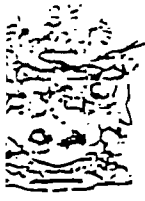47 Aster Street
LOUIS TRICHARDT
0920

Dear Madam

PERMISSION TO RESEARCH ON :   PROBLEMS OF INTERGRATING
THEORY AND PRACTICE IN SELECTED CLINICAL SITUATIONS.

1. The above matter has reference.

2. Permission is granted to you to conduct a research on
   the above topic at this Institution

3. You will be expected to liaise with the Clinical
   Department so as to be able to identify the periods
   when the comprehensive students will be allocated in
   the wards.

4. The Institution will appreciate it a lot, if at the
   end of the study you send us a copy.

5. Wishing you good luck in your study.

Yours Faithfully

KEBmdau
....
DEP. DIRECTOR / MED. SUPERINTENDENT
/aan-23.11.1999/

Northern Province

HEALTH   AND   SOCIAL   WELFARE

Ref: ....

Enq: ...Matron..................

Tel: ..015 - 973 0004..........

Fax :..015 - 973 0607..........

Mrs M. Maselesele
47 Aster Street
LOUIS TRICHARDT
0920

SILOAM HOSPITAL

PRIVATE BAG 2432

LOUIS TRICHARDT

0920

TRANSVAAL PROVINCE

SILOAM HOSPITAL

1999 -11-13

OF HEALTH & WELFARE

PERMISSION TO COLLECT DATA SUBJECT: PROBLEMS OF INTERGRATING THEORY AND

PRACTICE IN SELECTED CLINICAL NURSING SITUATIONS:

1.   The above matter refers.

2.   Provisional permission to collect data was granted by the provincial office.

3.   You are welcome to under take the study.

4.   Please send a copy of your report to the institution.

5.   Hospital management wishes you the best of luck in your reasearch project.

Yours Sincerely

PP n.G.Deuker

SUPERINTENDENT:

/snm.

Northern Province
DEPARTMENT OF HEALTH AND WELFARE
TSHILIDZINI HOSPITAL

TEL: (015) 964 1061
FAX: (015) 964 1492

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SHAYANDIMA
0945
99.10.28

REFERENCE:
ENQUIRIES: Mrs K.C. Mudau

Mrs M. Maselesele
47 Aster Street
LOUIS TRICHARDT
0920

APPLICATION TO CONDUCT RESEARCH:

1. The above has reference.

2. You are hereby informed that you can come and collect data for your research study. Inform us of the dates in time so that the necessary arrangements can be made.

3. You should however send us the report of your findings and the final permission (provisional permission used for now) from the Superintendent General.

4. The Management wishes you the best of luck in your studies.

pp. SUPERINTENDENT
/jt