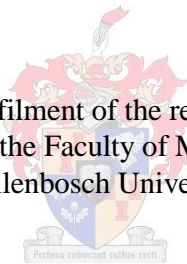


"Factors associated with attrition in the undergraduate diploma nursing programme"

By

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Thesis presented in partial fulfilment of the requirements for the Degree of Master of Nursing Science in the Faculty of Medicine and Health Sciences at Stellenbosch University.



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DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that the reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

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ABSTRACT

The issue of attrition of undergraduate participant nurses has remained a concern for an extremely long time. Attrition has been labelled as complex and in order to understand attrition it is important to pay attention to the rate, reasons and trends in South Africa. To understand attrition in South Africa, the trends internationally need to be taken into account to determine whether South Africa has a unique problem.

Due to the enormous financial cost to the state and the students' self-confidence, as well as their belief and understanding of why all the systems that have been put into place fail, it has become a concern. The reasons why students choose nursing and their academic progress throughout secondary schooling should give a clear indication to the educational authorities how successful the students could be.

The aim of this study was to determine possible reasons for attrition in students who do the undergraduate diploma nursing course.

The objective was to determine the attrition rate of students in the undergraduate course. Reasons for attrition involve a close investigation into age, home language, subjects taken in secondary school, family support, reasons for going into nursing, problems experienced, reasons for not completing the course and how these affected them.

The objectives was met through a descriptive study with a quantitative approach. The target population (N=260/100%) consisted of all students that had not completed their undergraduate diploma nursing course over four years between the years 2007-2010, from a Nursing College in the Western Cape. The sample population (n=58/22%) voluntarily agreed to participate in the study.

A telephonic questionnaire was administered with closed-ended questions and a small section which had a likert scale. Data was collected by the researcher and a trained field worker.

Ethical approval was obtained from the Health Research Ethics Committee at the Faculty of Health Sciences, Stellenbosch University. Permission was also obtained

from the Western Cape Provincial Administration to conduct the research. Informed consent was obtained from the students.

Reliability and validity was supported by a pilot study conducted on (n=10/10%) of the students at the Western Cape College of Nursing to ensure feasibility of the study.

The data was analysed by a statistician and presented in tables and graphs. Statistical analysis was determined by ordinal and nominal data. The results showed that there were numerous factors that contributed to the attrition of undergraduate nursing diploma students.

The results showed that the majority of the students' home language was Xhosa 43% (n=25/58) with the majority being female, single with one child. The main reasons for choosing nursing was because it was a vocation/calling.

The recommendations were to ensure that all nursing colleges be integrated into institutions of higher education, thereby ensuring more stringent selection criteria. There needs to be a bridging year where the students are taught to improve their literacy and numeracy so that this will give the students a better understanding of the lectures being delivered in English. There needs to be systems in place to assist the students that are mediocre or struggling.

The conclusion was that attrition is complex and requires more concrete systems to stem the rate. A total reformation of undergraduate diploma nursing programmes needs to be addressed.

OPSOMMING

Die kwessie van attrisie by voorgraadse diploma student verpleegsters is al vir 'n geruime tyd kommerwekkend. Attrisie word as kompleks bestempel en om dit te begryp, is dit noodsaaklik om aandag te skenk aan die tempo waarteen dit voorkom, asook die redes en tendense in Suid-Afrika te bepaal. Om attrisie in Suid-Afrika te kan begryp, moet die internasionale tendense in ag geneem word om te bepaal of Suid-Afrika 'n unieke probleem het.

Weens die enorme finansiële onkoste wat die staat het ten opsigte hiervan en die student se selfvertroue, asook hulle geloof en begrip in al die sisteme wat in plek is wat gefaal het, word dit 'n bekommernis. Die redes waarom studente kies om verpleging te doen en hulle akademiese vordering gedurende hulle sekondêre skoolopleiding, behoort 'n duidelike aanduiding aan die onderwysowerhede te wees hoe suksesvol die studente kan wees.

Die doel van hierdie studie is om die moontlike redes vir attrisie by studente wat die voorgraadse diploma kursus in verpleging volg, te bepaal.

Die doelwit is om die attrisie-tempo by studente in die voorgraadse diploma kursus, te bepaal. Redes vir attrisie verg 'n indringende ondersoek van die ouderdom, huistaal, vakke geneem in die sekondêre skool, familie-ondersteuning, redes waarom verpleging as loopbaan gekies word, probleme wat ondervind word, redes waarom die kursus nie voltooi word nie en hoedat dit hulle geaffekteer het.

Die doelwitte is behaal deur 'n beskrywende studie met 'n kwantitatiewe benadering te volg. Die teikenbevolking (N=260/100%) het bestaan uit alle studente wat nie hulle voorgraadse verpleegkursus binne vier jaar tussen die jare 2007-2010 aan 'n verpleegkollege in die Wes-Kaap voltooi het nie. Die steekproef bevolking (n=58/22%) het vrywillig ingestem om aan die studie deel te neem.

'n Telefoniese vraelys met geslote vrae is geadministreer en 'n klein gedeelte het 'n likertskaal bevat. Data is gekollekteer deur die navorser en 'n opgeleide veldwerker.

Etiese goedkeuring is verkry van die Gesondheidsnavorsing se Etiese Komitee aan die Fakulteit van Gesondheidswetenskappe, Universiteit van Stellenbosch. Toestemming is ook verkry van die Wes-Kaapse Provinsiale Administrasie om die navorsing te doen. Ingeligte toestemming is van die deelnemers verkry.

Betroubaarheid en geldigheid is ondersteun deur 'n loodsondersoek wat uitgevoer is op (n=10/10%) van die deelnemers aan die Wes-Kaap Kollege vir Verpleging om die uitvoerbaarheid van die studie te verseker.

Die data is geanaliseer deur 'n statistikus en in tabelle en grafieke aangebied. Statistiese analise is bepaal deur ordinale en nominale data. Die uitslae het bewys dat daar 'n aantal faktore is wat bygedra het tot die attrisie van voorgraadse studente wat die verpleegdiploma doen.

Die uitslae het bewys dat die meerderheid van die studente se huistaal Xhosa 43% (n=25/58) is, waarvan die meerderheid vroulik en enkel met een kind is. Die hoofredes waarom verpleging gekies is as loopbaan, is omdat dit 'n beroep/roeping is.

Die aanbevelings is om te verseker dat alle verpleegkolleges geïntegreer word by instellings vir hoër onderwys, daardeur word strengere seleksie-kriteria verseker. Daar behoort 'n oorbruggingsjaar vir participante te wees om hulle geletterdheid en syfervaardigheid in so 'n mate te verbeter dat hulle lesings in Engels verstaan wanneer dit aangebied word. Daar behoort sisteme in plek te wees om participante te help wat gemiddeld presteer of sukkel.

Die gevolgtrekking is dat attrisie kompleks is wat meer konkrete sisteme verg om die tempo waarteen dit plaasvind, die hoof te bied. 'n totale transformasie van voorgraadse diploma verplegingsprogramme behoort aangeroer te word.

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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
CPUT	Cape Peninsula University of Technology
DENOSA	Democratic Nursing Organisation of South Africa
HIV	Human Immunodeficiency Virus
HSRC	Human Sciences Research Council
RSA	Republic of South Africa
SA	South Africa
SANC	South African Nursing Council
TB	Tuberculosis

CHAPTER 1: SCIENTIFIC FOUNDATION OF THE STUDY

1.1 INTRODUCTION

The focus of this study was to establish the factors associated with student nurse attrition in South Africa. Andrew, Salamonson, Weaver, Smith, O'Reilly and Taylor (2008:865) reported an attrition rate of 11-20% in undergraduate students in Australia, and an attrition rate of 10-25% in the Degree course. In the United Kingdom attrition figures are as much as 25%, in Canada it was 10-18% and in California in the United States it was as much as 20%. Breier, Wildschut and Mqgqolozana (2009a:82) states that from 1997-2006 the attrition rate in South Africa was as high as 67%, with the highest percentage in the enrolled nurse and the enrolled nurse auxiliary category has been as high as 72-84%.

The statistics from the South African Nursing Council (SANC) for 2011, show that there was one registered nurse across all categories, for every 236 000 people. There has been a growth of 50% in the students registered for the four year undergraduate course from 2002 to 2011. There are three categories of students, namely, 4 years for student nurses, 2 years for pupil enrolled nurse and 1 year for pupil nursing auxiliaries.

A student nurse is a person being educated to be competent to independently practice comprehensive nursing. The pupil enrolled nurse is being educated to practice basic nursing in the manner and to the prescribed level. The pupil auxiliary nurse is a person educated to provide elementary nursing care (Nursing Act, No 33 of 2005:25, RSA, 2005:25).

According to the SANC, 2005, statistics for growth in the Registers and Rolls for the period 2002 to 2011, there had been an increase of 38% for all registrations. There was a growth of 25% for registered nurses which were supplemented by students completing the bridging course. There was a 70% growth in the enrolled nurse category due to the fact that there were large numbers being lost due to students discontinuing the 4 year course and taking up registration as enrolled nurses. There was a 42% increase in the pupil nursing auxiliary category, also due to the discontinuation of training of students on the 4 year course.

SANC, 2005 stated that although there remained a shortage of registered nurses, the positive side was that the growth had exceeded the population growth by a fair margin, although statistics were not available. The statistics (SANC, 2005) given by SANC reflected all persons registered, it did not exclude registered persons working abroad, persons not working due to ill health, or persons staying at home or working in the corporate world.

1.2 STUDY SETTING

The setting for this study was a nursing college in the Western Cape.

1.3 SIGNIFICANCE

At the end of this study the results for student nurse attrition presented and identified, would assist in recommending strategies that could be employed to prevent the attrition of undergraduate diploma nurses. This would also help to alleviate the shortage of qualified nurses, as well as stem the cost to the institutions (Department of Health: Nursing Strategy, 2008:12).

1.4 RATIONALE

Since 1968 when Mildred Katzell did research into expectations and attrition in nursing schools, we have not seen much change in the discontinuation/attrition rates in the nursing students of today. One of the reasons she found for the attrition was that nursing was not what the students expected (Katzell, 1968:154; Andrew et al., 2008:868).

In a study done by Prymachuk, Easton and Littlewood (2008:149), it was found that the attrition rate in pre-registration students was of concern internationally. The researchers found that the more mature students with higher levels of education were less likely to drop out of their course (Prymachuk, et al., 2008:149). Deary, Watson and Hogston (2002:71) found that stress and the inability of students to cope increased with training, and as a result had an impact on attrition.

In the studies conducted in South Africa, the reasons for attrition were mainly poor academic achievement, wrong choices, personal problems, financial circumstances, ill health, stepping stones to other jobs or professions, quality of training and pregnancy (Mashaba & Mhlongo 1995:366, and Breier, Wildschut, & Mggolozana 2009a:81). It was felt that once students were accepted to their nursing programme

that the tertiary institution had an obligation to put programmes and strategies in place to assist the students in making a success of their studies (Department of Health: Nursing Strategy, 2008:14).

According to Venter (2005) in the Star Newspaper, the role of the trained nurses in the hospitals and primary health facilities will become vitally important due to the increase in communicable diseases and because of a growing population. The health services are facing a dilemma in that SA is steadily losing trained staff and far too few people are coming forward to study nursing.

In 2008 the Department of Health released their strategic plan for nursing in which they acknowledged that a huge amount of transformation had taken place in the health care services and that the nursing profession has not been able to keep up with this growth in the population that have access to the health service. As a result of this and in view of the nursing shortage, SANC in accordance with the legislative framework of the Nursing Act No 33 of, 2005 revised the Scope of Practice for the three categories of nurses. This revised Scope of Practice ensures that the nursing staff is adequately qualified to practice. In this way, together with the new Scope of Practice and the new qualifications based on this Scope of Practice we get the framework for nursing practice in SOUTH AFRICA (Department of Health: Nursing Strategy 2008:12).

There are many complex challenges facing the policy makers concerning nursing. Some of the challenges are an increase in communicable diseases e.g. Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS), the working environment, the image of nursing as a career of choice, proper remuneration of nurses, and especially the migration of nurses (Department of Health: Nursing Strategy, 2008:9).

For decades nursing was the career of choice due to training being subsidized, as well as being accessible to all school leavers of the disadvantaged population. Nursing was also seen as a career of high standing in all communities. This perception has changed over the years and today nursing is not seen as desirable or lucrative. Due to the deteriorating working conditions it was felt by many nurses that

this was the reason for the decline in the status and image of the nursing profession (Department of Health: Nursing Strategy, 2008:7).

According to Breier et al. (2009a:65), the production of nurses has doubled from 1997 to 2006. The applications for training outweigh the available spaces. There was unequal distribution of nurses between urban and rural communities. It was found that there were not enough nurses available in provinces such as KwaZulu-Natal where there is the highest concentration of HIV/AIDS. This leads to the overburdening of resources, as well as an increased workload on the available nursing workforce who might be suffering from HIV themselves or they might be taking care of someone with HIV (Breier et al. 2009a:71).

There definitely needs to be better co-operation between government and the private sector in the form of public-private partnerships. This is especially true with the training of nurses, as the private sector has not been accredited with training the 4 year diploma or degree courses, only the bridging course (Breier et al. 2009a:81).

The declining role of the public sector is said to be due to budget cuts to the provincial health departments which in turn lead to the freezing of nursing posts or the cutting of posts, and secondly the restructuring of the nursing colleges to the higher education sector (Breier et al. 2009a:73).

According to Tinto (1975:90); Urwin, Stanley, Jones, Gallagher, Wainwright and Perkins (2010:202), research into the discontinuation of studies in higher education had never really focused on the longitudinal process (Figure 1), but rather on explaining the reasons for attrition. When looking at reasons for attrition, Urwin et al (2010:203) described attrition on three levels namely micro, which referred to student factors, meso to institutional factors and macro referred to political and professional factors.

Attrition being complex has been influenced by a range of factors such as financial, personal, and institutional, or the course itself. A distinction needs to be made between attrition and voluntary withdrawal, the latter being that the participant withdraws but at some stage will go back and receive a qualification.

The University of the Western Cape had a 27% undergraduate and 12% postgraduate voluntary withdrawal in 1995, but there was insufficient data to state why this happened (Letseka, Cosser, Breier & Visser, 2009:54). In total there was a 68% exclusion from the University of the Western Cape and a 47% exclusion from Stellenbosch University and these were on the grounds of academic, financial factors or a combination of both (Letseka et al. 2009:56).

Gaynor, Gallasch, Yorkston, Steward and Turner (2006:27), stated that we will be losing the baby boomers in the next 15-20 years to retirement and that these are the nurses with the expertise and specialties. According to the *Nursing Standard Magazine* the attrition rates for nursing students is of grave concern, the figures being as follows for 2008, England 27%, Scotland 26%, Wales 25% and Northern Ireland 22%. In S A. the picture is much the same as elsewhere in the world with a pass rate of 41% for Africans, 31% for coloureds, 6% for Indians and 10% for whites in the year 1997. According to Kortenhout (1997:14) these figures reflect the students that completed the four year diploma course within four or more years.

Upon completion of the four year course (SANC,1985) it was assumed that these registered nurses would be able to work in any health care setting, especially the primary health care settings (Lehasa, 2008:1). It was assumed that these community registered nurses would be skilled in diagnosing individual, family, groups and communities health needs.

In a study done on degree students in KwaZulu-Natal by Mashaba and Mhlongo (1995:364), it was felt that there was a pressing need to produce more qualified nurses due to the increase in ill health, the expanding of the health services and a population explosion (including the refugees in the country), as well as a drop in the amount of people that had medical cover and were reliant on the public health sector.

Mashaba and Mhlongo (1995:365) found that there were three main reasons for the drop out in nursing courses. These were namely secondary schools, colleges/universities, and lastly other. In secondary schools it was felt that there was academic unpreparedness for tertiary education and therefore there was wastage before the course was completed. This was due to few teachers, teachers being under qualified, poor teacher to pupil ratio, lack of guidance into an appropriate

career choice and poor examination results. Other reasons stated were personal problems, maladjustment to being away from home, a poor self-image thereby doubting their ability to succeed, as well as physical ailments. Pregnancy and financial issues, as well as expectations play a part (Andrew et al. 2008:866; Urwin et al. 2010:8; Glossop, 2002:379).

1.5 RESEARCH PROBLEM

The health care system in South Africa is predominantly nurse-based. It is therefore required that the nurses have the experience and competence to manage the disease burden of the country and meet South Africa's health care needs (Department of Health: Department of Health Strategic Plan for Nursing Education, Training and Practice 2012:6). Reasons for non-completion of a four year undergraduate nursing programme are complicated and interlinked, and can be attributed to the following problems: inappropriate choice of course, poor academic performance and personal, emotional and financial problems (Essa, 2011:254; Urwin et al., 2010:205; Petersen, Louw & Dumont, 2009:100; Pryjmachuk et al., 2008:151 and Dreary et al., 2003:73). Therefore, understanding the reasons for student nurse attrition could help in formulating systems to stop this practice in order to get a higher throughput.

1.6 RESEARCH QUESTION

What are the factors that may lead to attrition of undergraduate nursing diploma students in their training in a nursing college in the Western Cape?

1.7 RESEARCH AIMS

The aim of the study was to get an overview of the factors for possible attrition in the four year undergraduate diploma course for nursing students. According to Burns and Grove (2009:719), the research objective is a very clear and concise statement that focuses on identifying and describing variables and determining their relationship to one another or both.

1.8 RESEARCH OBJECTIVES

The objectives were to:

- determine the attrition rate in the four year undergraduate diploma nursing course in a nursing college in the Western Cape.
- investigate factors associated with attrition.

- determine trends in attrition.

1.9 CONCEPTUAL FRAMEWORK

The conceptual framework being used for this study was Vincent Tinto's Student Integration Model. Tinto based this theory on Durkheim's theory of suicide. Suicide in individuals is likely to take place in individuals who do not effectively integrate into society. A college is a social system with its own value and social systems. Therefore, attrition from that social system can be viewed in the same way as suicide from the wider society. It is a descriptive model that specifies conditions under which different forms of attrition occurs. Individual characteristics and dispositions can be relevant to college persistence. Individual characteristics such as age, sex, race, educational background and family, as well as the expectations and motivation need to be taken into account to determine attrition (Tinto, 1975:91-93). In this study the researcher looked at reasons for nursing students' discontinuation of the four year undergraduate diploma nursing course.

1.10 METHODOLOGY

A descriptive, quantitative study was carried out to determine the reasons for undergraduate diploma nursing attrition. The researcher also looked at trends and the rate of attrition. This is discussed in more detail in Chapter 3.

1.10.1 Research design

This study was a telephonic survey to determine possible reasons why nursing students in the four year undergraduate diploma nursing course would want to give up their studies. A telephonic administered questionnaire was completed by the students. Burns and Grove (2009: 240) describe the descriptive design as being used to gain insight into the characteristics of a particular field, which is in this case attrition in nursing students.

1.10.2 Population and Sampling

The population is described as the target group that meets all the inclusion criteria for the study, which in this case were undergraduate diploma nursing students (Burns & Grove, 2009:714). Sampling means a selective group of people with which to conduct the study (Burns & Grove, 2009:721).

The students were all four year undergraduate diploma nurses that had left their training in the last four years from a nursing college in the Western Cape (N = 260). The sample population is 22% (n = 58) with a prediction rate of at least an 80% return. The pilot study was conducted on 10% (n = 10) of the sample population. Telephonic consent was obtained from each participant. A random sampling technique was utilized. Each participant completed a telephonic questionnaire. All questionnaires were coded to maintain confidentiality and anonymity.

Confidentiality is the management of private information shared by the participant and may not be shared with others without authorization from the participant (Burns & Grove, 2009:196) and anonymity is where none of the responses can be linked to an individual even by the researcher (Burns & Grove, 2009:688).

1.10.2.1 Inclusion criteria

Inclusion criteria, means all elements that the students needed to possess to be included in the study (Burns & Grove, 2009:542). All students were included that had not completed the four year undergraduate diploma nursing course.

1.10.3 Data collection tool

A questionnaire is a printed form for reporting information that is obtained from the respondents (Burns & Grove, 2009:717). This was a telephonic questionnaire consisting of closed-ended questions which consisted of 25 questions divided into three sections. The three sections consisted of a demographic section, a secondary schooling section and tertiary education. Most of the questions were from developed questionnaires with a few questions being self-developed for the purpose of this study. The questionnaire was backed up by literature (Burns & Grove, 2009:236-238; Baker & Siryk, 1989:1-5; Markusic, 2009:1-6).

1.10.4 Pilot study

A pilot study is the smaller version of the main study done to develop or refine the methodology of the tool (Burns & Grove, 2009:713). The pilot study consisted of 10% (n=10) of the main study. This was done to test the reliability and validity of the questionnaire before the main study was done. The results of the pilot study were not included in the main study analysis.

1.10.5 Reliability and validity

Reliability is defined as the accuracy by which an instrument measures a concept (Burns & Grove, 2009:552) and validity is the extent to which an instrument accurately reflects the abstract concept being examined (Burns & Grove, 2007:559). The questionnaire was distributed to expert educators at a private Nursing Collage to verify face, criterion and construct validity. The expertise of a statistician was consulted throughout the study to analyze the data. The reliability and validity was supported through a pilot study which was conducted on 10% (n=10) of students to test the questionnaire and the feasibility of the methodology. A pilot study is commonly defined as a smaller version of a proposed study conducted to refine the methodology. (Burns & Grove, 2009:44).

1.10.6 Data collection

“Data collection is the identification of subjects and the precise, systematic gathering of information relevant to the research project or the specific objectives, questions, or hypothesis of a study” (Burns & Grove, 2009:536). The questions in the questionnaire were based on the objectives set out as above.

The questionnaire was done telephonically. The researcher assisted in explaining any questions that the students did not understand. All questionnaires were coded.

1.10.7 Data analysis

A statistician was consulted on a continuous basis concerning the analysis of the data. MS Excel was used to capture the data and STATISTICA version 9 was used to analyse the data. Data was presented in tables and graphs.

Summary statistics were used to describe the variables. Distributions of variables were presented with histograms and or frequency tables.

1.10.8 Ethical considerations

Ethical approval for the study was obtained from the Health Research Ethics Committee at the Faculty of Medicine and Health Sciences, Stellenbosch University (Appendix B). Addendum to Ethical Approval obtained due to change in methodology (Appendix C). Further approval was obtained from the Western Cape College of Nursing (Appendix D). Face and content validity was done by a group of experts at a

private nursing college. To test for reliability a pilot study was carried out. A statistician was consulted and was consulted on an ongoing basis.

All undergraduate students on the diploma course were free to participate. Telephonic consent was obtained from the students prior to the questionnaire being conducted. All questionnaires were answered anonymously. By participating the students gave their consent. The students were under no obligation to participate if they did not want to. If at any time during the telephonic discussion they did not want to carry on, they were free to withdraw.

The only person with access to the information was the researcher and supervisor. All data collected will be kept locked in a cabinet for a period of five years and the researcher will be the only person to have access.

1.11 OPERATIONAL DEFINITIONS

South African Nursing Council: The council is a statutory organization that was brought into effect by the Nursing Act No 45 of 1944 as amended in 2005, and is responsible for the regulation of nursing and midwifery in South Africa (Muller, 2007:45).

Student Nurse: They are registered or enrolled to control their education and licensing (Searle, 2009: 39). A person undergoing education or training in nursing must apply to the council to be registered as a student nurse (RSA, 2005).

Attrition: This refers to a decrease in the number of participant enrolment as a result of not completing or interruption of the nursing training programme (Mashaba & Brink, 2004:190).

Diploma: Certificate awarded to someone who has successfully completed a course of study (Oxford Dictionary and Thesaurus, 2009).

1.12 DURATION OF THE STUDY

The duration of this study was 1 year

1.13 CHAPTER OUTLINE

Chapter 1: Scientific foundation of the study

This chapter discussed the background to the study. It covered the research question, the aims and objectives of the study, the conceptual framework, methodology, operational definitions and duration.

Chapter 2: Literature review

This chapter discussed and presented the background literature on reasons for attrition, as well as the conceptual framework for the study.

Chapter 3: Research methodology

This chapter described the methodology in more depth to chapter 1.

Chapter 4: Results

This chapter presented and discussed the results obtained from the study.

Chapter 5: Discussion, conclusion and recommendations

In this chapter the limitations, conclusions and recommendations were discussed concerning the results of the study.

1.14 SUMMARY

The reason for doing this study was to establish the reasons why student nurses discontinue their training before they complete their course and to establish what can be put in place to decrease this rate at which it is happening. Attrition has been a concern to everybody that was involved in the process of training student nurses, but to date the rate has not decreased and the nursing profession is in crisis due to a lack of qualified nursing staff. In chapter 2 an in-depth literature review was done on reasons why students leave the undergraduate nursing course.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

Urwin et al., (2010: 203) describe attrition on three levels, namely micro, which are student factors, meso which are institutional factors and macro which are political and professional factors. In order to function appropriately and therefore avoid attrition, there needs to be integration between the student and the institution (Tinto, 1975: 90; Urwin et al., 2010:206).

Attrition is very complex and is influenced by a range of factors such as financial, personal and institutional or could be due to the course itself. Due to the diversity of factors and the difficulty in controlling them, these could lead to difficulty in controlling or influencing attrition rates (Urwin et al., 2010:206).

A distinction needs to be made between attrition and voluntary withdrawal, the latter being that the participant withdraws but at some stage will go back and receive a qualification (Letseka et al., 2009:53).

Since 1968 when Katzell (1968:154) did research into expectations and attrition in nursing schools, we have not seen much change in the discontinuation/attrition rates in today's nursing students. One of the reasons she found for attrition was that nursing was not what the students expected (Katzell, 1968:154; Andrew et al., 2008:868).

Prymachuk et al., (2008:149), found that the attrition rate in pre-registration students was of concern internationally. The researchers found that the more mature students with higher levels of education were less likely to drop out of their course. (Deary et al. (2002:71) found that stress and the inability of students to cope increased with training and as a result had an impact on attrition.

In the studies conducted internationally and in South Africa (SA) the reasons for attrition were varying, namely, poor academic achievement, wrong choice (wanting to do medicine, broadcasting or physiotherapy), personal problems, financial obligations, ill health, a stepping stone to other jobs or professions, quality of training, schooling and pregnancy (Breier, 2009a:81; Prymachuk et al., 2008:151; Glossop,

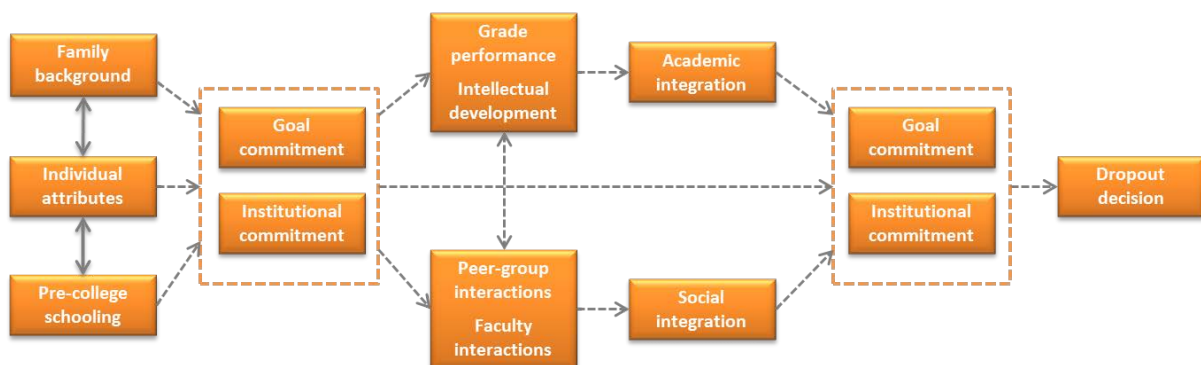
2002:376). Students that have lower academic marks in secondary schooling are more likely to achieve lower marks in the nursing programme (Donaldson, McCallum & Lafferty, 2010:654). It is felt that once students are accepted to their nursing programme that the tertiary institution has an obligation to put programmes and strategies in place to assist the students to make a success of their studies (Department of Health: Nursing Strategy, 2008:14). The time span for the literature review for the study undertaken was over a period of 10 years from 2002- 2012, with a few articles before 2002, due to their importance to the study.

2.2 CONCEPTUAL FRAMEWORK

Burns and Grove (2009:126) define a framework as an abstract, logical structure of meaning. Tinto's Student Integration Model was used for this study. In this model the process of failure to complete a course can be seen as a longitudinal process of interactions between the individual and the academic and social systems of the institution, as well as the student's experiences within these systems. This, Tinto feels leads to continuous modification of the student's goals and commitment to the institution (Tinto, 1975:94).

When students enter higher education they possess a variety of attributes, demographics, secondary schooling experiences and family backgrounds which will ultimately impact directly or indirectly on their college performance (Tinto, 1975:94). In the figure 2.1 below is an illustration of Tinto's Student Integration Model.

Figure 2.1: Student integration model



The higher the students' commitment is to completing their programme, the lower the risk of leaving the course. There is also the possibility in spite of the student being

fully integrated into the institution and not having an academic problem they may still withdraw from the course voluntarily (Tinto, 1975:97).

2.2.1 Individual characteristics

Family background is the single most important reason for students to leave their programme. The families' socio-economic status plays a role in a student's decision to stay or leave. It is more likely that students who come from families that are educated are more likely to complete their course (Tinto, 1975:100). The families' interest and expectations also play a part in the student's commitment to their course. Parent's expectations can influence the student's expectations of themselves (Tinto, 1975:100).

Grade performance is a good indicator for success as it demonstrates the student's ability to cope with higher education.

Personality and attitude have been noted to be different in student's who complete from those who do not complete their course. It is felt that students who do not complete their course were more impulsive. These students lack emotional commitment and are unable to make use of previous experiences (Tinto, 1975:101).

2.2.2 Previous educational experiences

The characteristics of the school, such as the facilities and academic staff are important in the student's ability to achieve and therefore will affect their persistence and achievement in college. The participant's ability to achieve, the social status of the school and the students perceptions of their ability will affect their ability to achieve in college (Tinto, 1975:102).

2.2.3 Interaction within College

The student's integration into the college can be measured by their grades and intellectual development. This means that the student meets academic requirements and the student's acceptance of the college's rules. Intellectual development can be seen as the student's evaluation of the college, and the academic mark is a reflection that the student is being evaluated and judged. In other words these refer to the student's achievements and attributes in relation to the college's values and objectives (Tinto, 1975:104).

Social integration with peers by means of support will mean that the student will be more likely to complete her/his studies. Social interactions can also have a negative effect on students in that social interactions can take up a lot of the student's time and lead to a decline in academic achievement. It can therefore be said that social interaction can assist and detract from continuation in pursuit of a qualification (Tinto, 1975:108-109). Extracurricular interactions and faculty interactions are secondary in developing a commitment to the college.

Decisions to stay or leave a programme are multi-pronged as it involves the relationship between the individual and the institution. The type of resources within the institution, such as facilities, building arrangements and staff members, will lead to the development and integration of the participant into the institution. There tends to be a lower rate of attrition in smaller, private institutions, than bigger, public institutions, but the reasons for this is unclear (Tinto, 1975:116).

2.3 NURSING IN THE 21ST CENTURY

2.3.1 Nursing shortage

Nurses are the backbone of most of the global health systems. Nursing shortages therefore undermines the health care system especially in remote rural areas where a nurse may be the only health practitioner. Nurses comprise 40-50% of the global health workforce. (Gaynor, Gallasch, Yorkston, Stewart, Bogossian, Fairweather, Foley, Nutter, Thompson, Stewart, Anastasi, Kelly, Barnes, Glover, Turner, 2007:13).

SA has a quadruple burden of disease, namely, HIV/AIDS and tuberculosis, high maternal and child mortality, chronic lifestyle diseases (diabetes, hypertension), as well as violence and injury, which exacerbates the shortage of healthcare resources (Department of Health: Department of Health Strategic Plan for Nursing Education, Training and Practice 2012:11).

Nursing shortage is viewed as a situation where the demand for nurses outweighs the supply of nurses and this can happen for a variety of reasons that could be unrelated or interrelated, where nurses are available to work but are not willing to due to the post being in a rural area versus an urban area, or in contrast to nurses being available but not meeting the criteria for employment, were a qualified registered professional nurse may be required and there are only students available. (Littlejohn,

Campbell, Collins-McNeil & Khayile, 2012:23; Erasmus & Breier, 2009:4). According to SANC the increase in persons on the register is reaching the growth in the population, but according to DENOSA (Democratic Nursing Organization of South Africa), SA is not training or producing enough nurses to deal with the disease needs of the country and therefore we are unable to deliver an effective health service (Erasmus & Breier, 2009:144, Breier, 2009a:30).

In 2008 the Department of Health released their strategic plan for nursing; they acknowledged that a huge amount of transformation had taken place in the health care services and that the nursing profession has not been able to keep up. As a result of this and in view of the nursing shortage, the SANC in accordance with the legislative framework of the Nursing Act No 33 of, 2005 revised the Scope of Practice (Regulation R2598) for the three categories of nurses in 2004. This revised Scope of Practice ensures that the nursing staff is adequately qualified to practise in line with the health care needs of the population (Department of Health: Nursing Strategy for South Africa; 2008:12). The new Scope of Practice had to consider the current health system, follow international best practice, national health policies and the health care priorities of South Africa and all the challenges facing nursing practice (Department of Health: Nursing Strategy for South Africa; 2008:12).

The aim therefore of the Department of Health: Nursing Strategy is to achieve and maintain a steady flow of suitable qualified nursing staff that are distributed and deployed to meet the health needs of all South Africans. The shortage of nurses' impacts negatively on the access and the quality of care delivered.

Nursing is the foundation of the national health care system and therefore special attention needs to be paid to it. Due to the important role that nursing plays and the far reaching effects of the rapid change in the health care system, it is said that nursing will lead the way in the transformation of all the health professions. Previous forecasting for the period 2001-2011, using the Actuarial Society of South Africa Demographic and AIDS model it is projected that the gap between supply and demand will be 18 758 (Breier et al.2009a:31). It is also estimated that to keep this ratio then the output needs to be kept at about 5 837, which will still leave an overall shortage of 18 758 nurses by 2011(Erasmus & Breier, 2009:138).

For decades nursing was the career of choice due to training being subsidized, as well as being accessible to all school leavers of the disadvantaged population. Nursing was also seen as a career of high standing in all communities. This perception has changed over the years and today nursing is not seen as desirable or lucrative. Deteriorating working conditions is the reason why many nurses feel that there is a decline in the status and image of the nursing profession (Breier et al.; 2009a:117, Department of Health: Nursing Strategy for South Africa; 2008:11).

There definitely needs to be better co-operation between government, professional nursing organizations and the private sector concerning the production of nurses, the development and retention as part of the implementation of the strategy (Department of Health: Strategy for Nursing in South Africa; 2008:13). Training of nurses, in the private sector has not been accredited with training the four year diploma or degree courses only the bridging course. The degree or diploma course includes midwifery, community and psychiatric nursing and general nursing. Babies are delivered by doctors in private practice and there are no facilities for community and chronic psychiatry (Breier et al., 2009b:12).

According to the Minister of Health, Dr A. Motsoaledi stated in an article in the Star, that he felt that nursing training has become too theoretical and fragmented and that more emphasis should be placed on the practical aspect of training. The practical aspect of the nursing training according to the Minister was one of the greatest strengths of the nurses training which caused them to be in high demand for overseas working opportunities.

2.3.2 Distribution of nurses

In a case study done by Breier et al., (2009a:19) as part of a Human Science Research Council (HSRC) study, it was found that there are two major problems that are causing the shortage of nurses in South Africa. These are namely attrition between graduation and registration, as well as attrition between nurses on the SANC register and those actively working. Although the numbers from the SANC register indicate that there are enough nurses in absolute terms, there is still a shortage as a result of unequal distribution between urban and rural areas, as well as specialist nurses.

The production of nurses has doubled from 1997 to 2006, this was mainly due to the bridging course and not the four year diploma course. The applications for training outweigh the available spaces. It is found that there are not enough nurses available in provinces such as KwaZulu-Natal where there is the highest concentration of HIV/AIDS. This leads to the overburdening of resources, as well as an increased workload on the available nursing workforce who might be suffering from HIV themselves or they might be taking care of someone with HIV (Breier et al., 2009a:71).

The declining role of the public sector is said to be due to budget reductions to the provincial health departments which in turn lead to the closing of nursing posts or the cutting of posts, and secondly the restructuring of the nursing colleges to Institutions of higher education. (Department of Health: Department of Health Strategic Plan for Nursing Education, Training and Practice, 2012:11).

2.3.3 Disease profile of the population.

According to Venter (2005) in the Star Newspaper, the role of the trained nurses in the hospitals and primary health facilities will become vitally important due to the increase in communicable diseases and because of a growing population. The health services are facing a dilemma in that SA is steadily losing trained staff and far too few people are coming forward to study nursing. The HSRC states that between 1990 - 2000 there was a 1, 2% reduction in the new entrants to nursing. They also stated that 18% of registered nurses were not practising anymore. In 2003 the HSRC found that 80% of nurses experienced an increased workload and of these 60% reported being dissatisfied with their working conditions.

The training curriculum for nurses today does not reflect the disease profile that has been seen in the country, namely HIV/AIDS and Tuberculosis, maternal, infant and child mortality and lastly injury and violence (Ross, 2011:6).

There are many complex challenges facing the policy makers concerning nursing. Some of the challenges are an increase in communicable diseases for example HIV/AIDS, the working environment, the image of nursing as a career of choice, proper remuneration of nurses and especially the migration of nurses. According to the World Health Organization the HIV/Aids epidemic is extensive for Sub-Saharan

Africa and the prevalence is 17.8% which means that 5.6 million people are living with HIV (World Health Organisation: 2012).

The most urgent recommendation is for Nursing Colleges to be declared institutions of Higher Education in compliance with the Higher Education Act, as amended in 2008 (Department of Health: Department of Health Strategic Plan for Nursing Education, Training and Practice 2012:6).

In the White Paper on the Transformation of the Health System (1997:5-6), the goals and objectives are set out as follows:

- To unify the fragmented health services into a comprehensive and integrated National Health Service
- Promote equity, accessibility and the utilization of health services
- Extend the availability and ensure the appropriateness of health services
- Develop health promotion activities
- Develop the human resources available to the health sector
- Foster community participation across the health sector
- Improve health sector planning and monitor the health status and services.

The Comprehensive Service Plan for the implementation of healthcare (National Department of Health 2006:1, states that the fundamental assumption is that the number of patient contacts would not be reduced, but that the patients would be treated at the appropriate level that is most suited to their need within a seamless service.

2.4 ATTRITION IN HIGHER EDUCATION:

2.4.1 Reasons for attrition in Higher Education

Students transition into Higher Education is a milestone for most people seeking a higher education. The environments of these students are as diverse as the participant population itself. A seamless transition is only achieved by mediating the social, cultural and political factors (Alibi & Lawson, 2004:1). Education offers the prospect of an improved life and acts as a means to social standing. Social influences of the economy, culture and class, institutional dynamics and individualized, personal attributes all have a bearing on transition and attrition debates (Alibi & Lawson, 2004:1).

According to Tinto (1975:90) and Urwin et al. (2010:202), research into discontinuation in higher education has never really focused on the longitudinal process but rather on explaining the reasons for attrition. For an institution to carry out its mission they need to retain students, so a high rate of attrition becomes a financial and a representative failure to achieve its purpose.

Leseka et al., (2009:60-61) found that matriculation exemption was a strong indicator of future success. The students at the University of the Western Cape who completed their course successfully and had a Senior Certificate with exemption represented 62% versus 39% of those students who did not. There appeared to be a higher failure rate amongst students who failed the three Senior Certificate subjects, namely English, Mathematics and Physical Science. The minority of students were also not English speaking. Some students were just as impoverished as others but were more motivated, resilient and focused.

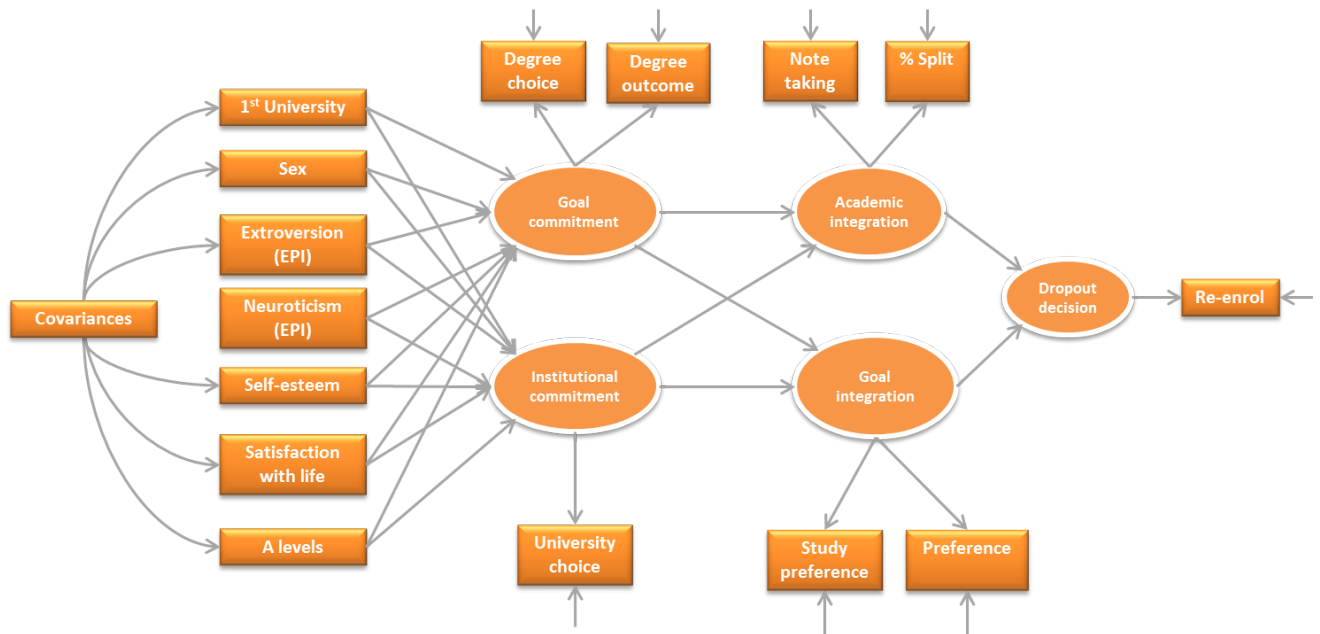
George, Quinlan and Reardon (2009:2) found that the Human Resources for Health will be exacerbated due to HIV/AIDS, migration and an aging nurse population. HIV prevalence amongst healthcare workers between the ages of 18-35 years is 20% and between 25 -35 it is 16%. The prevalence of HIV amongst participant nurses in the rural areas is 14%. There is a 2% chance of nurses that are sick enough to develop AIDS or an opportunistic infection. Nurses in the age group above 40 years amount to 64%. Nurses in the age group between 25-29 years amount to 9%. In 2007 it was estimated that 7% of nurses were working outside of South Africa.

The University of the Western Cape had a 27% undergraduate and 12% postgraduate voluntary withdrawal in 1995, but there was insufficient data to state why this happened (Letseka & Mali., 2009:54). In total there was a 68% exclusion from the University of the Western Cape and a 47% exclusion from Stellenbosch University and these were on the grounds of academic, financial or a combination of both factors (Letseka & Mali, 2009:56).

Attrition can be attributed to the interaction between the institution of higher education, society pressures and the student's values, academic intentions and commitment to the institution (Adibi & Lawson, 2005:3). The student's initial decision to stay or leave is determined by personal characteristics, background and their

commitment. Then later it will go in accordance with their integration into the social and academic life of the institution (Brunsden, Davies, Shevlin & Bracken, 2000:301-302; Adibi & Lawson, 2005:3).

Figure 2.2: Attrition from Higher Education



The focus of attrition should move away from the broader aspects of the institution and more attention should be paid to the specific reasons and conditions that make the student decide to abandon the course (Brunsden et al.; 2000:307). Wright and Maree (2007:597) stated other societal perceptions as reasons for undergraduate diploma nursing students not completing their course, such as gender stereotyping, subordination to doctors, low academic standards, limited career opportunities, poor pay and working conditions. Students also have misconceptions of nursing, as well as the in-depth knowledge required and the responsibility of nurses (Wright & Maree, 2007:597).

2.4.2 Consequences of attrition

Mass enrolment of students due to political and institutional reform can create problems of which one is balancing educational quality with the student's expectation of their course choice and flexibility. The second problem is containing and reducing the attrition rate due to the accessibility for different student populations (Adibi & Lawson, 2005:1-2).

The reverse side of attrition is that if the majority of students leave their courses and have no intention or desire to pursue their courses any further, then it is a cause for worry. It is then important to get a clear understanding of why this is happening as it could indicate that something is structurally wrong. It appears as though the highest attrition rate is in students over 20 years old, in their first year and who is new to higher education (Adibi & Lawson, 2005:2).

2.5 REASONS FOR PARTICIPANT NURSE ATTRITION/ DISCONTINUATION

Breier et al., (2009a:91) found that students leaving school felt that nursing was easily accessible, was easy to get into and supported them while they studied. More interest was shown by African school leavers and those from rural areas.

Many students train in nursing but do not actually take up the profession. For these students nursing becomes a stepping stone into other medical professions, such as medicine and physiotherapy which is estimated to be 40%. Donaldson et al. (2010:654), state that around two thirds of students entering their undergraduate course are 26 years and older due to the fact that there are greater career choices available to them. This means that the pool of actual and potential students is shrinking. In the United Kingdom only 2% of people surveyed between the ages of 11-18 years were interested in nursing, due to their view being that nursing was hard work and required long working hours (Donaldson et al. 2009:655). The throughput of nursing students who enter nursing and qualify is estimated to be 50% but needs investigation (Department of Health: Department of Health Strategic Plan for Nursing Education, Training and Practice 2012:23).

According to Lehasa (2008:13-14), the Nursing Act 50 of 1978 and the Higher Education Act No 101 of, 1997 are associated with Nursing Education. There are two categories of nursing education, namely tertiary education and professional practice. The Higher Education Act regulates tertiary education, and therefore provision is made for establishment of the Council for Higher Education. The responsibilities of the Council is to advise the Minister of Education on all matters pertaining to education.

The South African Nursing Act (58 of 1997) as amended is responsible for the formation of the SANC. The responsibility of SANC is to assist in the promotion of the

health standards of the country, as well as controlling matters affecting the education, training and practice of nurses. The Council is also responsible for the approval of nursing curricula, as well as the training institutions.

SANC as a statutory body has to improve and control standards and the quality of nursing education and training within the ambit of the Act and applicable laws. To gain admission to the four year diploma course it is required that the candidate holds at least a senior certificate or an equivalent qualification. SANC is known as an Education and Training Qualifications Authority as they are responsible for the monitoring of nursing education and training standards.

Upon completion of the four year course (RSA 1985) these registered nurses are qualified to work in any health care setting especially the primary health care settings (Lehasa, 2008:1). It is assumed that these community registered nurses will be able to be skilled in diagnosing individual, family, groups and communities health needs.

A lot of debate and literature exists since 1930 on student nurse attrition and common themes linked with this have been developed. These themes are to do with personality, characteristics of the nursing students, and academic demands of the nursing course and the changing demographic profile of the student. These are namely the age of the student and with that the responsibilities of children and financial obligations. Ethnicity and stress, as well as what the nursing education entails versus the reality of nursing practice play a role in attrition (Gaynor et al., 2006:27).

2.5.1 Nursing shortages

According to Breier et al.,(2009b: 2) in their calculations of the year-on-year growth in the register of SANC, there was a 65% attrition rate. Gaynor et al. (2006: 27) stated that we will be losing the baby boomers in the next 15-20 years to retirement and that they are the nurses with the expertise and specialties. Attrition rates for nursing students is of grave concern, the figures being as follows: Australia estimates the range to be 10-25%, United Kingdom 25%, Canada 10-18% and California in the United States 20% (Andrew et al., 2007:865-866). In South Africa the SANC register indicates that in 2010 the Western Cape universities produced 168 professional

nurses from 81 in 2005, and 101 professional nurses in 2010 compared to 79 from nursing colleges (Littlejohn et al., 2012: 25).

According to the Department of Health: Department of Health Strategic Plan for Nursing Education, Training and Practice(2012:11) there is a pressing need to produce more qualified nurses due to the increase in ill health, the expansion of the health services and a population explosion (this also takes into account the refugees in the country) as well as a drop in the amount of people that have medical cover and become reliant on the public health sector.

Urwin et al., (2009:203-204) found that there were three main reasons for discontinuation of training before completion of nursing courses. These are namely secondary schools, colleges/universities and lastly other. In secondary schools it is felt that there is academic unpreparedness for tertiary education and therefore there are quitters before the course is completed. This is due to too few teachers, teachers being under qualified, poor teacher-to-pupil ratio, lack of guidance into an appropriate career choice and poor examination results.

Other reasons stated are personal problems, maladjustment to being away from home, poor self-image thereby doubting their ability to succeed, as well as physical ailments. Pregnancy and financial issues, as well as expectations play a part (Andrews et al.; 2008:866; Urwin et al .; 2010:8; Glossop, 2002:379).

Gaynor et al., (2006:27) state that universities in the United Kingdom have to keep attrition rates down to less than 13% or face financial penalties. Common reasons for attrition in Australia are personality traits, academic demands, changing profile of the student being more mature and therefore having family responsibilities, cultural diversity, academic stress and expectations.

In the United States the nursing shortage is estimated to double between 2000 and 2010 to 12%. Canada is estimating a shortfall of 13 000 nurses for the year 2011 and increasing to 113 000 by 2016. The United Kingdom cannot ascertain their shortage. Australia has maintained a stable attrition rate since 2004 at 20-21%, although this might not be totally accurate as this figure includes students that have transferred or left and then completed their courses at a later stage (Gaynor et al., 2006:26-27).

2.5.2 Diversity of students:

There is a strong need to recruit older students, males and previously disadvantaged students. These students will at times take longer to complete their course, and may have to disrupt their course due to non-academic reasons. These reasons could be pregnancy, childcare, care of a sick family member, financial issues and employment constraints (Jeffreys, 2007:409).

2.5.2.1 Mature students

Mature students have a number of roles that they need to fulfil. If a parent re-enters education while having a family to care for they may have to renegotiate gender based roles (Steele, Lauder, Caperchione & Anastasi, 2005:574). Students report experiencing stress and practical difficulties due to balancing education with family and work commitments. Students experienced problems, which included relationship breakdowns, redundancy, poor health and impaired psychological health (Steele et al., 2005:577). Many students have extensive and complex support systems. The extended support is emotional, financial, social and educational. Support is given by family, friends, neighbours, college peers and lecturers (Steele et al., 2005:577).

Understanding coping strategies, aspirations and perceptions of these mature students is of importance and needs to be addressed in the curricula in order to prevent attrition and maximize performance (Steele et al., 2005:574). Coping strategies used are exercising, taking time out, co-coordinating schedules and change in thinking and communicating with the family (Steele et al., 2005:575).

Many mature students supplement their bursaries and/or have previous experience in the nursing field and therefore are socialized and have an understanding of the demands and expectations of the nursing profession (Donaldson et al., 2010:655).

2.5.2.2 Males

There remains to be a drive to recruit males into the nursing profession. Unfortunately the proportion remains low. In the United Kingdom men comprise 10% of the registered staff (McLaughlin, Muldoon & Moutray, 2010:303). In 2010 the percentage of male registered nurses was 7% of the total registered nurses and this increased to 9% in 2011, where as in the student male nurses category we do not

see and increase at all and the percentage stayed at 22% of male student nurses for the years 2009 – 2011(SANC 2010, SANC 2011).

Males in nursing dates back to biblical times through to the middle ages, but this gets overlooked in textbooks and nursing education. The continuous labelling of males as “male nurses” essentially labels them apart from their counterparts (McLaughlin et al., 2010:306).

Gender role identity was not found to be a predictive factor in completion of the nursing course. What it might have a bearing on is the area that the male student will decide to specialise in. Nursing education has the capacity to accommodate students that are psychologically masculine, feminine and androgynous (McLaughlin et al., 2010:306).

2.5.2.3 Cultural diversity

It is pivotal that educators are aware of where the students come from. Beliefs and values are carried with us and it is important to gain insight and learn from one another. Cultural knowledge is the process of seeking and obtaining insight into different cultural and ethnic groups. Cultural understanding should therefore be an integral part of career learning (Donahue, 2009:119). Meeting the cultural needs of students is a challenge as they belong to one or more cultural groups. They will therefore bring their patterns of learnt behaviour, values and beliefs into the academic setting (Donahue, 2009:120). Students learn to accept differences, build on similarities and are willing to learn from others. This is lifelong and called cultural humility (Donahue, 2009:120).

Cognitive and intellectual differences may relate to the way in which students learn. Emotional differences will involve how the student will react to stress and new situations. Educational backgrounds and life experiences will contribute to developmental differences, and deficits in motor and sensory domains will contribute to physical differences (Johnson & Mohide, 2009:343). A preceptor therefore can use a process of accommodation to assist students with different abilities, thereby providing them with an opportunity to succeed, by recognising their individual needs (Johnson & Mohide, 2009:343). Differences in ability can be addressed by providing learning opportunities that are according to the student’s learning style and

developmental level. Inter-generational differences provide the opportunity for discussion on unique abilities and skills that educator and learner can contribute to learning (Johnson & Mohide, 2009:343-344).

Language was identified as the primary barrier to learning in ethnically diverse students. If English is not the participant's first language it can be viewed negatively on the student's intellectual abilities. With English being the participant's second language it can cause difficulty in the clinical setting as the student may experience problems with terminology, introducing themselves, attending to requests and providing explanations, especially in a high pressured environment (Johnson & Mohide, 2009:343-344).

Students who receive bursaries have to maintain a grade average to ensure continued financial assistance. Students may need to maintain employment due to family commitments. These factors can create or enhance stress making it difficult for the students to cope with academic requirements (Johnson & Mohide, 2009:343-345).

Spiritual values or religious practices and the obligations of the profession may impede a student's ability to learn. Understanding these beliefs or practices assists in how to bridge the gap between personal values and beliefs and the care required by the patients. By linking the student to a mentor with the same value and belief system can assist in meeting their responsibilities and at the same time observing their customs (Johnson & Mohide, 2009:346).

2.5.3 Trends in attrition

2.5.3.1 Parental and family influences

Breier et al., (2009a:83), found five main reasons for students' going into nursing, namely: because of parental or family influence, nursing as a stepping stone to another career, because of the bursary, the status and image of nursing and because of being able to help others.

Parents, relatives and teachers have the largest influence on students' decision to do nursing, which amounted to parents 36%, teachers 17% and siblings and relatives last of all. Parents in the nursing profession amounted to 7%. It was found that

student's family that were in the nursing profession had indirectly influenced them as role models. Illness also motivated students due to their experiences thereof (Breier et al., 2009a:84).

2.5.3.2 Nursing as a career

Nursing students enter the profession with little knowledge of the realities of the practice and therefore feel that it was the wrong career choice (Urwin et al .; 2010:203). Wright and Maree (2007:597) state that many students have a misconception of nursing, as well as the academic requirements needed for the undergraduate course. Helping people, working with people and loving people are far removed from the realities, and it was therefore evident that the students had not thought through their career choice. Students failed to enquire about nursing and therefore made an emotional choice (Wright & Maree, 2007:607)

Students made the decision to go into nursing due to the fact that they either did not meet the criteria to study their course of choice, or because they did not enjoy the courses they were on and decided to try nursing (Breier et al., 2009a:85).

2.5.3.3 Financial aid

In previous years nurses traditionally were paid while studying and therefore became employees with all the benefits. This system still applies in Kwa-Zulu Natal, but in the Western Cape the students are given bursaries. This becomes a powerful drawing card, only for students to discover that it barely covers their expenses (Breier et al., 2009a:84).

2.6 SUMMARY

In this chapter it becomes evident that nursing is going to be losing the specialist nurses in the next ten to fifteen years, which will increase the nursing shortages that the profession is facing.

Students decide to follow nursing as a career and do not make this decision based on sound knowledge. It is important to make provision for more males and older students to enter nursing. The financial aid, admission criteria and the knowledge of nursing needs to be improved in order to improve the attrition rate. More effort needs to be invested into accommodating students from disadvantaged backgrounds.

Investment into upgrading the competencies and skills of lecturers need urgent attention.

South Africa is diverse and therefore attrition becomes complex in that students are at times ill prepared for higher education. Nursing is in the process of being reconstituted and the programmes being upgraded, which in the near future will hopefully stem the flow of attrition from the undergraduate nursing course.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

Research is the systematic investigation of a problem or situation that validates and refines existing knowledge in order to generate new knowledge (Burns & Grove, 2009:2). A quantitative research approach with a descriptive design was used for this research as it is a formal systematic process in which to obtain the data about the world in a numerical way. This method was used to describe variables, examine their interactions to one another and the relationships between them (Burns & Grove, 2009:22). A descriptive design was used as it discovers new meaning, describes what exists, determines how often it happens and puts information into categories (Burns & Grove, 2009:25).

3.2 STUDY SETTING

The study was carried out telephonically. All the students were undergraduate diploma nursing students that had left their course between the years 2007-2010. The students came from the Northern, Eastern and Western Cape.

3.3 RESEARCH DESIGN

A research design gives better control and therefore gives validity to the study (Burns & Grove, 2009:236). The design needs to be specific to the study. The control provided by the design will therefore increase the probability that the study results will accurately reflect reality (Burns & Grove, 2007:237). The research design for this study was a survey. A survey can be defined as a data collection technique in which questionnaires or personal interviews are used to gather specific information from a specified group of people (Burns & Grove 2009:724). In this study a questionnaire was utilised.

This is the formal plan for conducting the study and maximizes the control over factors that could interfere with the validity of the study (Burns & Grove, 2009:696). This study was a descriptive, quantitative study to determine which factors are associated with attrition of nursing students in the undergraduate diploma nursing course. The descriptive design is used so that more information can be gained and to provide a picture of what is happening (Burns & Grove, 2007:240). Demographic

data was collected, as well as secondary schooling and their exposure in the college to aids, support and factors associated with discontinuing training. A telephonic administered questionnaire was completed by the students. Burns and Grove (2007:240) describe the descriptive design as being used to gain insight into the characteristics of a particular field, which is in this case attrition in nursing students.

The conceptual framework supported the design, as discussed in paragraph 2.3.1, in determining which factors lead to the attrition of nursing students before completion of their course.

3.4 POPULATION AND SAMPLING

The population is described as the target group that meets all the inclusion criteria for the study, which in this case were undergraduate diploma nursing students (Burns & Grove, 2009:714).

The students were all undergraduate diploma nurses that had left their training in the last four years from 2007-2010 from a nursing college in the Western Cape. The population for this study is the students who registered for the undergraduate nursing programme between 2007 – 2010 (N = 260). The sample was selected from these students (n = 100/38%) with a prediction rate of at least an 80% return. The pilot study was conducted on 10% (n = 10) of the sample population. A simple random sampling technique was utilized. Random sampling can be defined as a technique in which every member of a population has equal chance of being selected for the sample, with a probability of higher than zero, which increases the sample representation of the target population (Burns and Grove 2007:551).

Each participant completed the questionnaire telephonically. All questionnaires were coded to maintain confidentiality and anonymity. Confidentiality is management of private data in research so that the student's identities cannot be linked to their responses (Burns & Grove, 2009:693). Anonymity means that none of the responses can be linked to an individual, even by the researcher (Burns & Grove, 2009:688).

3.4.1 Inclusion criteria

Inclusion criteria mean all elements that the students needed to possess to be included in the study (Burns & Grove, 2007:542). In this study it meant all students that had left the four year undergraduate diploma nursing programme.

3.4.2 Exclusion criteria

Exclusion means any elements that would exclude a participant from taking part in the study (Burns & Grove, 2007:539). Therefore, all students who participated in the pilot study were excluded from the main study.

3.5 DATA COLLECTION TOOL

A questionnaire was used in this research. Questionnaires can be described as a tool for self-reporting. It is seen as the same as obtaining data through interviews but have less depth in the questions. Questionnaires are used to obtain information about the subjects, as well as elicit facts about situations as understood by the subjects (Burns & Grove, 2009:406).

This was a telephonic questionnaire that consisted of 25 questions divided into three sections. Most of the questions were from developed questionnaires with a few questions being self-developed. The questionnaire was backed up by literature. The telephonic interview was done by the researcher and a field-worker. The purpose of the study was explained to all students before commencing the survey. All students were asked for their consent to participate. It was explained to students that they were free to withdraw at any stage. All questions were dichotomous and categorical.

The questionnaire was divided into sections A, B and C.

Section A: Demographic data:

In this section the researcher looked at the age, home language, where the participants came from, marital status, how many children they had, was there family support and how their course was funded.

This was to explore if there is a difference between more mature students versus the school leavers in attrition. It was found in the literature that the more mature students was less likely to leave the course (Prymachuk et al., 2008:157).

Looking at home language was to assess if the students would have difficulty with understanding the course content in English if this was not their first language. If a student has difficulty in basic literacy it could be extremely difficult for them to grasp medical terms.

When looking at marital status, children and family support the purpose was to establish how much support the student needs in his/her studies as well as help in dealing with day to day functioning in the household. If there is no support the student is less likely to succeed due to less time being available for studying.

Funding for the course was important to look at as the cost involved in buying all stationary and books for the course is high and by having a bursary it is ensured that the students have the requirements for completing the course.

Section B: Secondary school history:

In this section the researcher looked at the medium of instruction in grade 12, subjects taken in grade 12 and whether the students found the subjects relevant to nursing.

The relevance for this was to get an idea of how the students would cope with being taught in English, as well as to establish their basic knowledge in the sciences. Because nursing has its basis in the sciences and a large part of the training is academic, it is important to have a good grounding in the sciences.

Section C: Tertiary education:

This section dealt with how students where admitted to the course, the reasons for wanting to nurse, computer literacy, access to a library and computer, parts of the course that they found most stressful, their support when stressed, type of remedial help was at their disposal and lastly, reasons for leaving.

By determining why the students applied for the course and their reasons for going into nursing would give an indication as to their commitment and understanding of the requirements of the nursing course.

The library, computer and remedial access were important to determine the availability of extra help in dealing with areas of further research, as well as equipping the student with resources to help when they were struggling with any aspect of the course.

Looking at the reasons why the students discontinued their course was to get an understanding from the students' point of view as to what the problem was and what they felt was lacking in the system to help them.

3.6 PILOT STUDY

A pilot study is defined as a smaller version of the main study. It is used to develop a plan rather than to test an already developed plan. By conducting a pilot study it would strengthen the study design (Burns & Grove, 2009:44). The pilot study was carried out prior to the main study.

The pilot study was carried out on 10 % (n = 10) of the sample population of all the nursing students that left their course between the years 2007 - 2010 from a nursing college in the Western Cape. The pilot study was carried out to determine the validity and reliability of the questionnaire. The feasibility of the methodology was also tested.

Results obtained from the pilot study was to confirm that the students were able with the help of the researcher and the field assistant to understand and answer the questions. All the students were willing to participate once they understood the reason for the research and were also reassured that they were free to withdraw at any stage. It was felt that the questionnaire adequately answered the objectives.

The pilot study was statistically analysed at the same time as the empirical study by the statistician but the researcher first reviewed the pilot study data to determine the validity and reliability of the questionnaire and found it to be adequate and therefore no amendments were required.

3.7 RELIABILITY AND VALIDITY

Reliability is defined as the accuracy by which an instrument measures a concept (Burns and Grove, 2007:552) and validity is the extent to which an instrument accurately reflects the abstract concept being examined (Burns & Grove, 2007:559). The questionnaire was distributed to expert educators at a private Nursing College to verify. Face validity can be defined as the instrument looking and giving the appearance of measuring the desired content of the study (Burns & Grove 2009:700). A questionnaire was used in this study. Construct validity examines the fit between conceptual and operational definitions of variables and determines whether

the instrument actually measures the theoretical construct that it purports to measure (Burns & Grove 2009:693). This was to measure factors associated with attrition in undergraduate students.

The expertise of a statistician was consulted, throughout the study to analyze the data. The reliability and validity was further supported through a pilot study which was conducted on 10% (n=10) of students to test the questionnaire and the feasibility of the methodology. A pilot study is commonly defined as a smaller version of a proposed study conducted to refine the methodology (Burns & Grove, 2009:44).

On completion of the pilot study it was evident that the student's met the criteria that was to be measured and the researcher was satisfied that the questions were answered accurately due to the fact that the researcher and fieldworker were able to clarify any misunderstandings of the students.

3.8 DATA COLLECTION

"Data collection is the identification of subjects and the precise, systematic gathering of information relevant to the research project or the specific objectives, questions, or hypothesis of a study" (Burns & Grove, 2007:536).

The questionnaire was done telephonically. All questionnaires were coded. All quantitative data was put onto a spread sheet and analyzed. Data was presented in tables, graphs and discussion in text. All the names and contact details of the students who left the undergraduate diploma nursing course between the years 2007-2010 were given to the researcher by the nursing college. All the students were contacted by the researcher and the field worker.

The reason for the research was explained to each participant and verbal consent was obtained from them to do the questionnaire. All the participants were able to answer the questionnaire in English as this was a requirement to study, so language was assumed not to be a problem. Every questionnaire was coded so no reference could be made to who the questionnaire belonged to. The data was coded separately by the statistician and the main and pilot study results were kept separately.

Once the questionnaires were completed the data was captured by the researcher. The completed forms were kept locked up at the researcher's place of residence and the researcher is the only person who has access to them.

3.9 DATA ANALYSIS

Data analysis is a technique used to reduce, organize and give meaning to data (Burns & Grove, 2007:536). The statistician used MS Excel to capture the data and STATISTICA version 9 to analyse the data. No inferential statistics was used in the analysis. Descriptive analysis was done only. The study was to determine which factors were associated with attrition in undergraduate diploma nursing students and to compare the results with previous studies.

3.10 SUMMARY

This chapter dealt in detail with how the research was carried out and the precise steps that were followed. Ethical considerations were adhered to very strictly, especially the consent from the students, as well as respecting their rights to decide not to partake in the research.

CHAPTER 4: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

In this chapter the results of the research are presented, analysed and interpreted. Analysis of the reasons and rates for undergraduate diploma nursing student attrition will be presented in graphs and tables. The aim of this interpretation was to get a clear understanding of the factors associated with attrition over the years and whether this has decreased or increased, as well as possible solutions to stem the attrition rate.

4.2 PRESENTATION OF STUDY FINDINGS

The presentations of the findings are presented in the order of the objectives set out for this study. In the study there were 100 students in the sample with a return rate of 58%.

4.2.1 Determine the attrition rate in the four year undergraduate course.

When examining the statistics for student nursing from the SANC demographics for 2009, in total 2876 students were registered and were in training in the Western Cape. The female students total four times the number of male students. The reason for this is that nursing has through the ages been a female dominated profession.

As can be seen by the table 4.1 and table 4.2 below there has been an overall decrease in the number of students registered with SANC in the student nurse category, but an increase in the pupil enrolled nurse and pupil auxiliary nurse training group. This increase could be attributed to the fact that the private nursing colleges are year after year increasing their intake numbers for training in the pupil and pupil auxiliary groups. The males remain to grow in numbers year after year; in 2010 there were 340 male students, and this increased by 224 male students in 2011 to 464 students. Research indicated that there remains to be fewer males entering the profession. It is documented in the research that there remains to be fewer males entering nursing, in 2005 Western Cape collage of nursing (WCCN) tried to balance their intake between males and females in spite of 95% of the applicants been female. This meant that they had to look very hard for appropriate applicants, of

these only a third progressed to fourth year (Breier 2009a:90). It is interesting to note that gender did not have a major influence on staying or leaving the profession in a study done by McLaughlin et al. (2010:306) but rather influenced the career path of the students.

Demographic statistics for student nurses for 2010 - 2011 from SANC: Western Cape

Table 4.1: Demographic statistics for 2010

	Student nurse	Pupil enrolled nurse	Pupil auxiliary nurse
Female	1471	913	407
Male	340	93	24
Total	1811	1006	431

Table 4.2: Demographic statistics for 2011

	Participant Nurse	Pupil Enrolled Nurse	Pupil Auxiliary Nurse
Female	2099	1051	510
Male	464	114	26
Total	2554	1165	536

In the study undertaken the participants who did not complete their studies were female 88% (n=51/58) and the males 12% (n=7/58).

Table 4.3: Females and males who did not complete their studies

Gender	n	%
Female	51	88
Male	7	12
Total	58	100

4.2.2 To investigate factors associated with attrition

4.2.2.1 Age

In this section the data that was collected looked at age, gender, home language, region that they came from, marital status, number of children and family support.

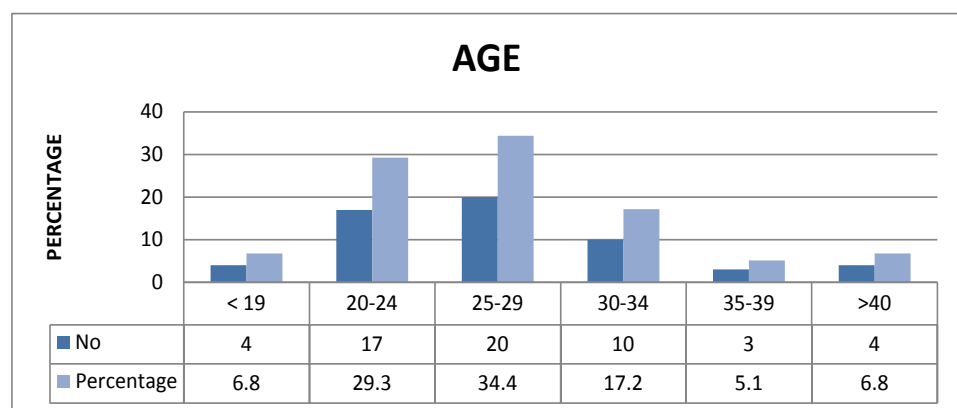
The age of the participants can be seen as follows, 19 years 7%(n=4/58), 20-24 years 29%(n=17/58), 25-29 years 35%(n=20/58), 30-34 years 17%(n=10/58), 35-39years 5%(n=3/58) and 40 years 7%(n=4/58). It can be seen that the majority of

participants fell into 25-29 year group, then the 20-24 year group, then the 30-34 year group. As can be seen in figure 4.1

It is interesting to note that the 19 year group only made up 7%, meaning that these students only started nursing a year after completing secondary schooling or only completed schooling at this age.

This is an indication that we are seeing more mature students entering the profession as indicated by the literature. Students find it difficult at times to balance family with work commitments and therefore need to make choices between continuing and giving up. Financial difficulties and readjustment back into education may pose a problem for mature students (Steele et al., 2005:577).

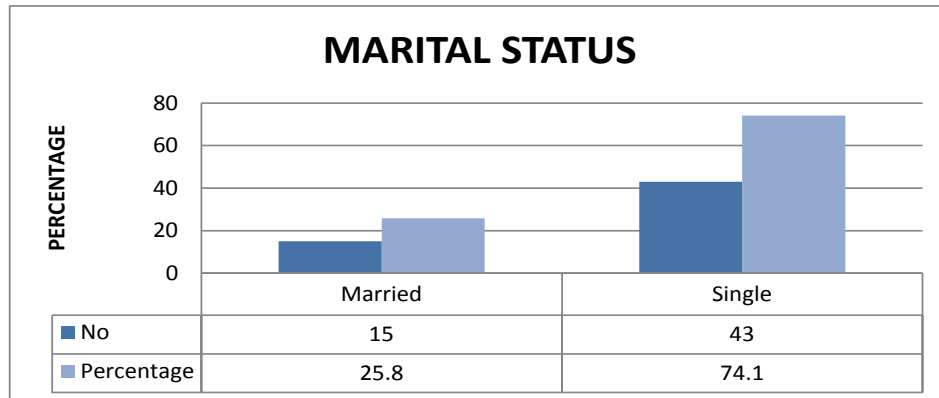
Figure 4.1: Age



4.2.2.2 Marital status

The results indicate that a large majority of the participants were single 74% (n=43/58) and only 26% (n=15/58) were married. As can be seen in figure 4 2 below.

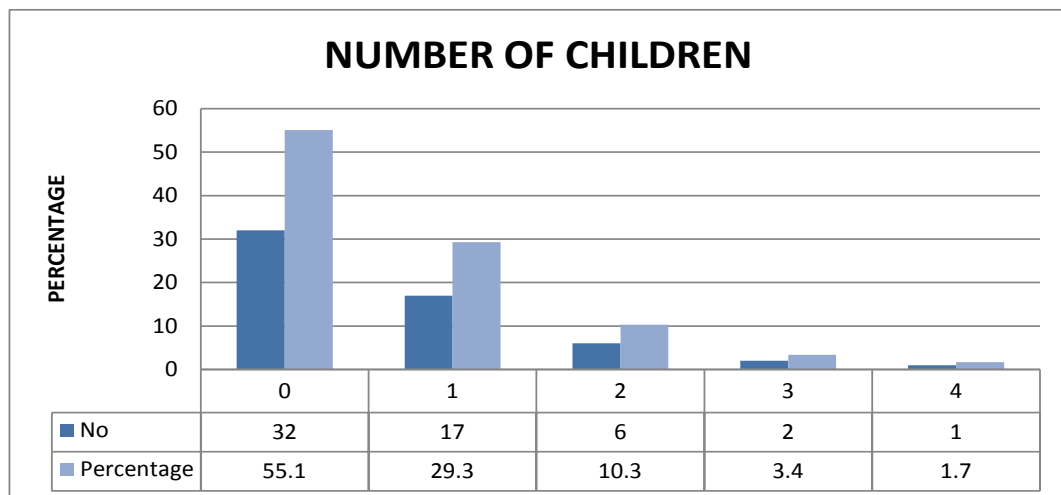
Figure 4.2: Marital status



4.2.2.3 Number of children

The statistics for the number of children the participants had were as follows, no children 55%(n=32/58), one child 29%(n=17/58), two children 10%(n=6/58), three children 4%(n=2/58) and four children 2%(n=1/58). Half the participants had no children while it can be seen that 29% had at least one child. A small percentage had more than one child. As can be seen in figure 4.3 below.

Figure 4.3: Number of children.

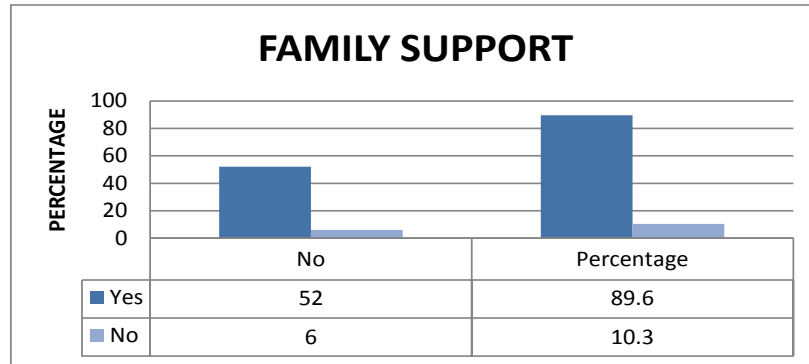


4.2.2.4 Family support

There appeared to be good family support for the participants in their choice to go into nursing. A total of 90% (n=52/58) reported that their families were extremely

happy with their decision and a small percentage said that their families were very unhappy about their decision 10% (n=6/58) as indicated in figure 4.4.

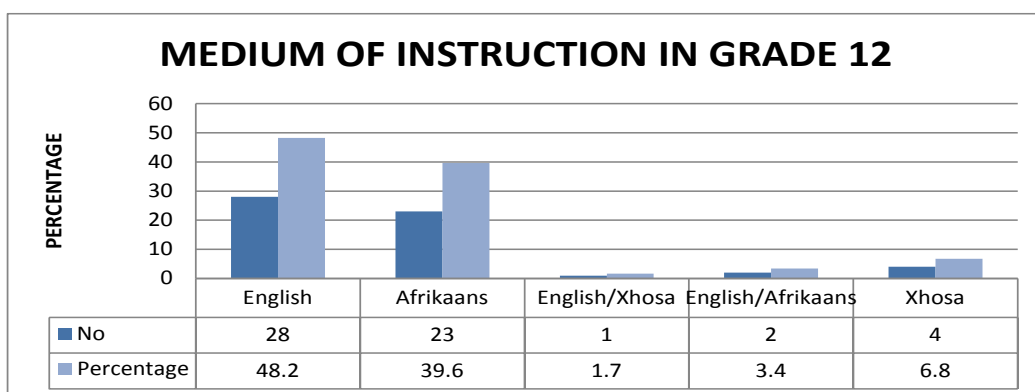
Figure 4.4: Family support



4.2.2.5 Medium of instruction

The majority of participants reported being taught either in English 48% (n=28/58) or Afrikaans 40% (n=23/58) in grade 12, then Xhosa 7% (n=4/58), English/Afrikaans 3% (n=2/58) and lastly English/Xhosa 2% (n=1/58). Therefore, some of the participants reported struggling with the medical terms and understanding, as all lectures were in English. As can be seen in figure 4.5

Figure 4.5: Medium of instruction in Grade 12.

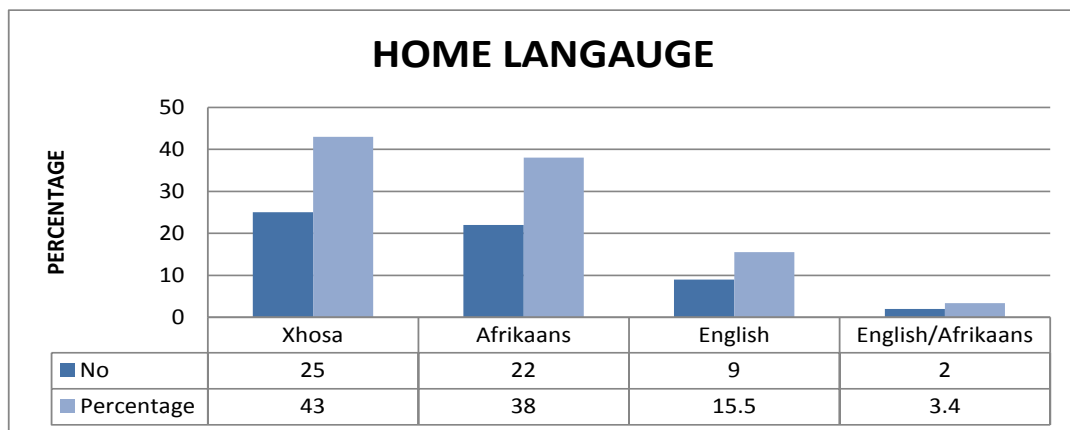


The majority of the students came from the Western Cape 72% (n=42/58), then the Eastern Cape 24% (n=14/58), and lastly the Northern Cape 3% (n=2/58).

4.2.2.6 Home language

It was interesting to observe that English and Afrikaans were the top two languages as a medium of instruction in grade 12. When looking at the participants' home language, Xhosa 43% (n=25/58) was spoken by most, then Afrikaans 38% (n=22/58), then English 16% (n=9/58) and lastly English/Afrikaans 3% (n=2/58). This is illustrated in the figure 4.6 below.

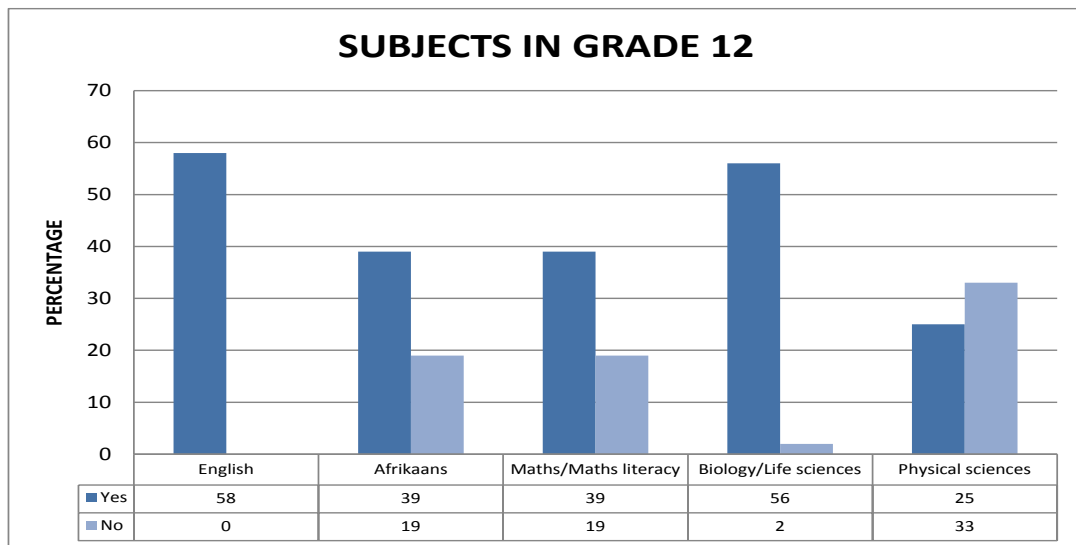
Figure 4.6: Home language



It can be seen that the majority of the participants' home language was Xhosa, Afrikaans, then only English, yet the medium of instruction in Grade 12 and on the undergraduate programme was English, it therefore will explain the participant's battle with understanding the lectures and medical terms.

4.2.2.7 Subjects in grade 12

In this section the researcher looked at the subjects that the participants took in grade 12 to establish whether the students went into nursing with a scientific basis. In figure 4.7 the results are: English 100% (n=58/58), Afrikaans 67% (n=39/58) Mathematic /Mathematic Literacy 67% (n=39/58), Biology/Life Sciences 97% (n=56/58) and Physical Sciences 43% (n=25/58).

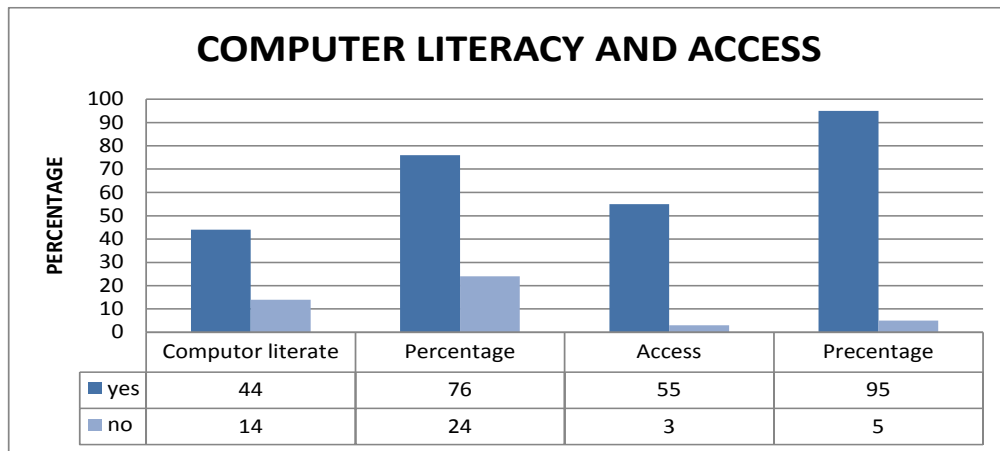
Figure 4.7: Subjects in Grade 12

The participants were asked if they felt that the subjects they took were relevant to nursing, and the feedback was: yes 97% (n=56/58) and no 3% (n=2/58). It would appear that the participants had a good scientific basis for nursing, except for the fact that these subjects were taught to the students in English, Afrikaans and Xhosa for most participants. According to Leseka (2009:60), students who left the undergraduate programme were more likely to have higher failure rates in English, Mathematics and Physical Sciences in the Senior Certificate. The participants whose home language was Xhosa expressed difficulty in understanding the lectures.

4.2.2.8 Computer literacy and access

To ascertain whether the participants were able to use a computer and had access to one so that they would be able to access more information for their studies, the following results were obtained: The statistics for the participants that were computer literate was 76% (n=44) and 95% (n=55/58) of the participants stated that they had access to a computer either at home or on the college campus. This can be seen in figure 4.8.

Figure 4.8: Computer literacy and access.



Participants who had access to a library were yes 98% (n=57/58) and no 2% (n=1/58). My only explanation is that the participant was unaware of the library or that she/ he did not make use of the facility.

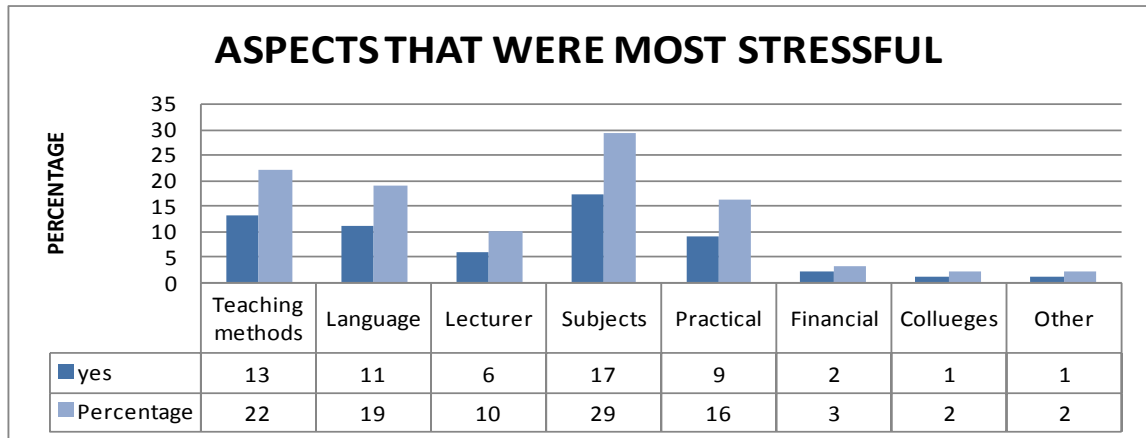
4.2.2.9 Aspects that where most stressful

The researcher looked at factors that the participants found most stressful and the results were as follows: teaching methods 22% (n=13/58), language 19% (n=11/58), lecturers 10% (n=6/58), subjects 29% (n=17/58), practical 16% (n=9/58), financial 3% (n=2/58), colleges 2% (n=1/58) and other 2% (n=1) The one respondent felt that she was the oldest and had decided to pursue nursing “know that her children were grown and out of the house”, but this was very stressful in that she felt that too many years had passed since last studying. It can be seen that the three most stressful areas of concern are the methods of teaching subjects and the language.

Students need to pass a variety of modules before embarking on the nursing curriculum such as psychology, sociology and the humanities. These courses require the students to be able have a good command of decision making skills, critical thinking and lastly have good academic skills. This can all be very overwhelming for underprepared and academically disadvantaged students (Mashaba & Brink, 1994:180).

Figure 4.9 below illustrates this concept:

Figure 4.9: Aspects that were most stressful

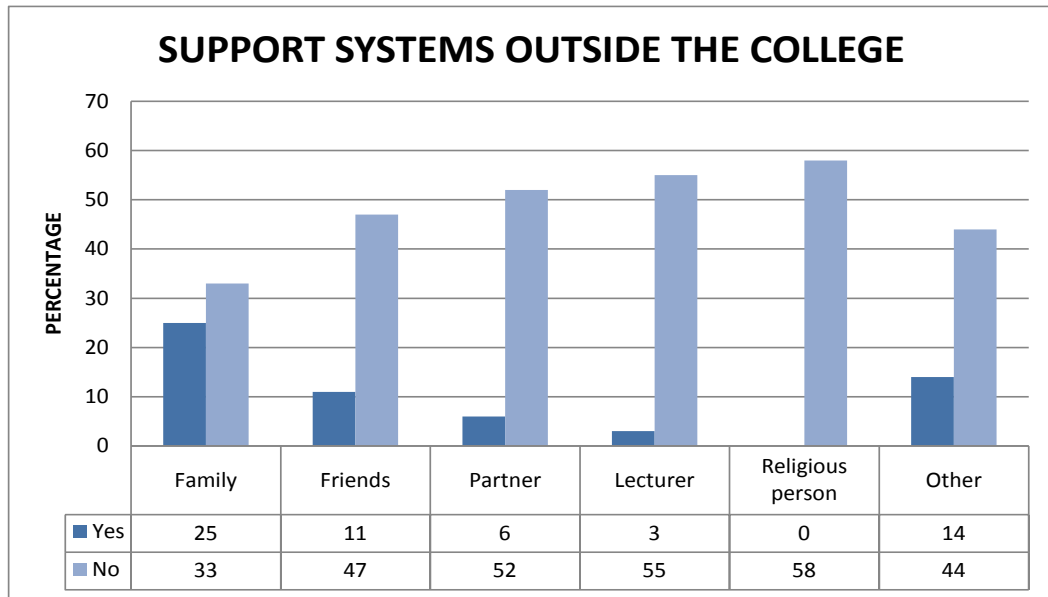


It becomes obvious that the way in which the subjects are being taught needs to be reviewed. This could also explain why language was playing a large role in the understanding of subjects. The knowledge that participants had of remedial help that was in place was yes 57% (n=33/58) and no 41% (n=24/58). The participants who responded in the affirmative stated that the lecturers availed themselves after college finished for the day. Some of the participants felt that it was difficult to see the lecturers after classes as they needed to get public transport to get home and these were the participants who therefore felt that remedial help was not in place. It was also felt by the participants that the counsellors that were available to them could also only see them after hours and that was a problem, therefore only a few of them made use of this resource.

4.2.2.10 Support systems outside the college

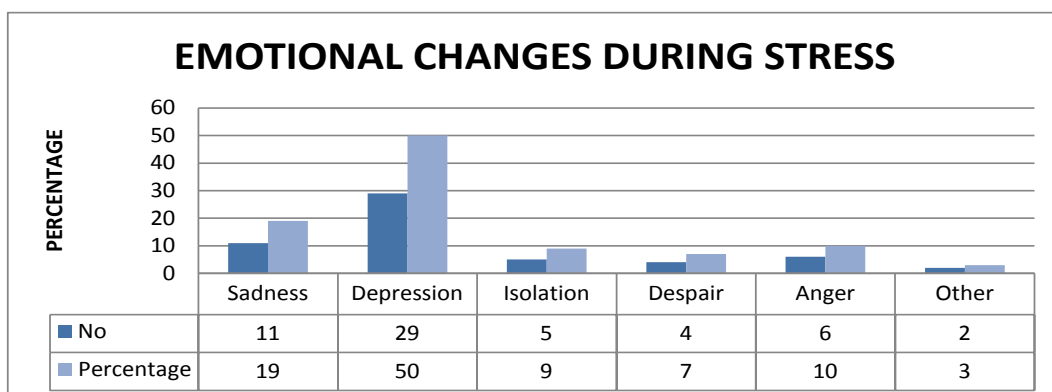
After looking at support systems at the nursing college, the researcher also looked at what support system was available to the participants outside and the results are as follows: Family 43% (n=25/58), friends 19% (n=11/58), partner 10% (n=6/58), lecturers 5% (n=3/58) and other 24% (n=14/58). Participants in the other category mainly turned to classmates for support, there were three participants that felt that they had nobody, and this was either a true reflection or they just chose not to seek support. Participants therefore turned first and foremost to family and friends and others for support.

Figure 4.10: Support systems outside the college



The emotional changes experienced by the participants were as follows, sadness 19%(n=11/58), depression 50%(n=29/58), isolation 9%(n=5/58), despair 7%(n=4/58), anger 10%(n=6/58) and other 4%(n=2/58) and 1 participant could not give an emotional change. Sadness and depression were the two main feelings expressed by the participants, followed by anger, isolation and despair. As indicated in figure 4.11.

Figure 4.11: Emotional change due to stress.

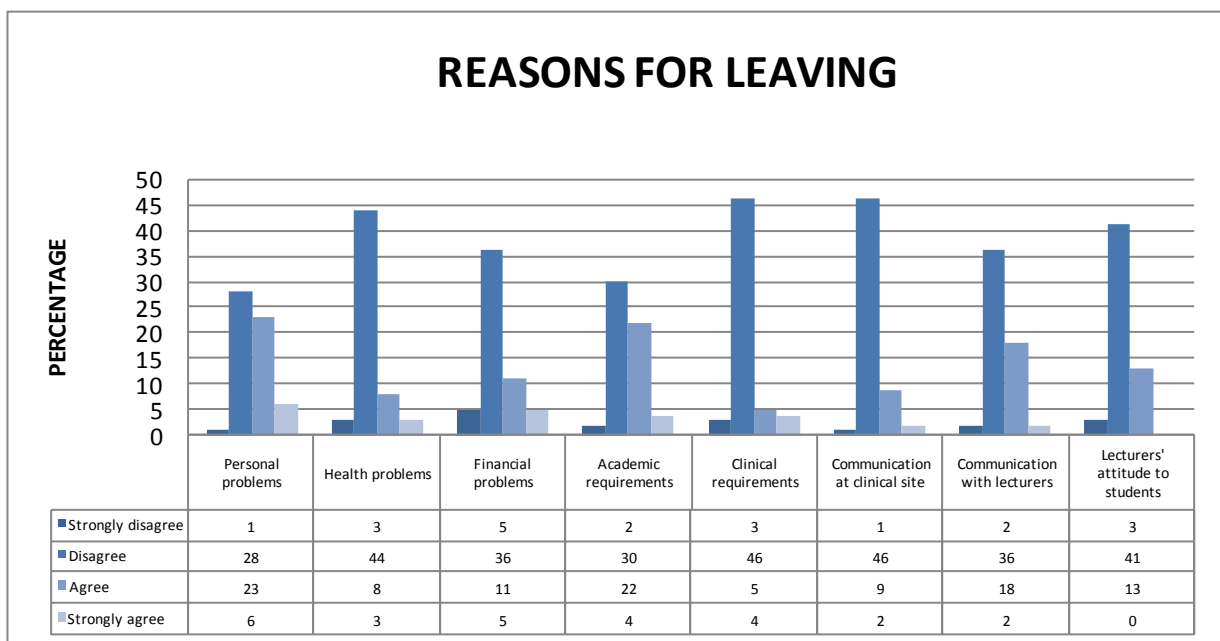


Reasons for discontinuing training of the four year undergraduate diploma nursing programme were as follows as it is illustrated in the figure 4.12 below.

4.2.2.11 Reasons for leaving

The reasons for participants not completing their course were as follows. The reasons are in order of the participants answering in the affirmative. Communication with lecturers 35% (n=20/58), personal reasons 50% (n=29/58), academic requirements 45% (n=26/58), , Financial 28% (n=16/58), Lecturers attitude towards students 22% (n=13/58), Health problems 19% (n=11/58), communication at clinical sites 19%(n=11/58) and clinical requirements 16% (n=9/58). As can be seen in figure 4.12.

Figure 4.12: Reasons for leaving



The results show that communication was a problem for 51% of the participants. Communication is vital in nursing not only for the transfer of knowledge but also in being able to understand the patient’s wishes in hospital. The personal problems and health problems experienced by the participants, was mainly ill health with family members or themselves. The participants expressed that their personal problems for leaving was associated with being the only breadwinner in the family and needed to leave in order to find a job. The participants expressed the wish to resume their studies again in the hope of completing their course. The academic reason for leaving was 45%. Some of these participants were either practicing as enrolled nursing auxiliaries, or had commenced their training at another nursing college. The majority of these participants reported struggling with understanding the lectures and

the medical terms due to English not being their home language. One of the participants reported regret at having partied too much.

It can be seen that finances played a fairly significant role. Although 62% (n=36/58) of the participants did not find finances a problem, it remained significant that 28% (n=16/58) struggled financially seeing that all participants except for 2% (n=1/58) were given bursaries to study. Reasons for this were daily living expenses, transport, being the breadwinner for the family and having to support extended family. Leseka (2009:56), stated that in her study reasons for leaving were due to financial reasons 40%, academic 27%, and financial and academic 33%.

Most of the participants expressed that the lecturers were very nice to them and that they felt very comfortable with their attitude towards the students. Although communication was a problem, the participants expressed no difficulty with their practical practice in the clinical sites. This could be because they had senior staff or more senior students that could assist them.

4.2.3 Determine trends in attrition

The table below illustrates the breakdown of the attrition of the undergraduate diploma nursing students according to race.

Table 4.4: Race

Gender	n	%
White	2	4
Black	25	43
Coloured	31	54

It can be seen that the attrition rate falls in line with the population distribution for the Western Cape. According to the statistics for the population census for 2011, the Western Cape was the second fastest growing province, with an increase of 29% from 2001. When the statistics are broken down for race it is as follows: Blacks constitute 79%, Coloureds 9%, Indians/Asians 3% and other 0.5% (SA info 2012). The Western Cape college of nursing is mandated by the Health Department to select students according to their representation in the province.

In table 4.5 below it can be seen that attrition runs in line with international and national trends in the years that students left their courses.

Table 4.5: Years in which students left

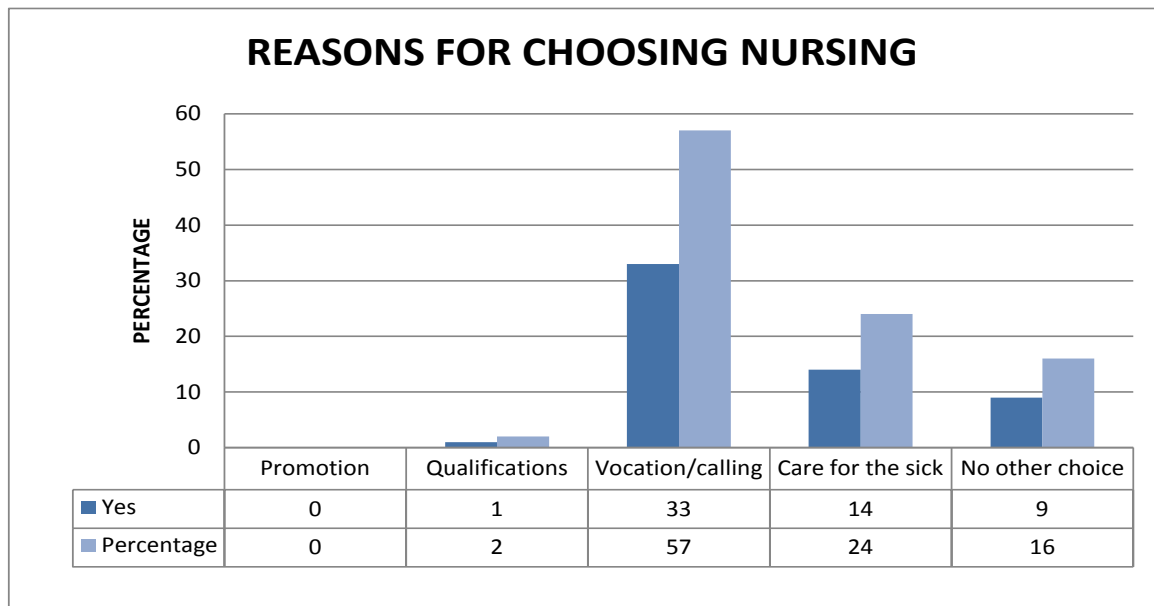
Year	n	%
1 st	32	35
2 nd	24	41
3 rd	2	4

Andrew *et al.* (2008:865) state that in Australia there was a 20% attrition rate in 1st year and 11% in 2nd year. Leseka (2009: 54) stated that at the University of the Western Cape there was a 27% undergraduate attrition rate. Mashaba & Mhlongo (1994:367) found that 80% attrition was experienced in the 1st and 2nd years of study at the University of Zululand.

4.2.3.1 *Reasons for going into Nursing*

The participant's reason for choosing nursing needed to be considered when assessing the reasons why the undergraduate diploma nursing students decided to leave the undergraduate diploma course. The participants stated their reasons as follows: promotion 0% (n=0/58), qualifications 2% (n=1/58), vocation/calling 57% (n=33/58), care for the sick 24% (n=14/58) and no other choice 16% (n=9/58). Figure 4.13 illustrates why students choose nursing:

Figure 4.13: Reasons for choosing



Nursing students' perceptions of nursing can be unrealistic. Nursing is seen as a profession of nurturing and compassion and is sensationalized in the media. This results in the profession being viewed as being based on common sense with very little need for complex knowledge (O'Donnell, 2010:2). Certain participants complained about the twelve hour shifts and having to work at least two consecutive days at a time on their feet., then also having to study.

On the other hand there were students that went into nursing even though it was not their first choice for a field of study. When applying for a course at the University of Technology the students need to give three options, so that they can be placed into another course for example nursing, if they are not accepted for their course of choice (Breier, 2009a:81).

Lastly, some students went into nursing because somebody in the family was in medicine and therefore they decided to do nursing.

4.3 SUMMARY

In summary, there are more male and mature students embarking on a career in nursing. More students are from under-privileged backgrounds whose home language is not always English and therefore struggle with the academic requirements. Remedial systems were in place but not all participants made use of

these due to time constraints. Financial responsibilities due to family commitments have an impact on the participants decision to continue with their studies. Lastly, participants were not fully aware of what the requirements were to pursue a career in nursing.

CHAPTER 5: DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

Chapter 5 will present the conclusions regarding the reasons for attrition in the undergraduate diploma nursing programme. The conclusions are discussed according to the purpose, aims and objectives of the findings as set out in chapter 1. Areas for further research and the limitations are discussed and recommendations are made to try and stem the flow of students leaving the undergraduate nursing diploma course.

5.2 DISCUSSION

The discussion will be as set out in the objectives of the study, and these are as follows:

- determining the attrition rate in the four year undergraduate diploma nursing course
- investigating reasons for attrition
- determining trends in the attrition rate.

These objectives were met through the research study which identified possible factors for attrition in the four year undergraduate course.

5.2.1 Determining the attrition rate in the four year undergraduate diploma nursing course

In this study it was determined that the number of students who did not complete their course were 88% (n=51/58) females and 12% (n=7/58) males. Of these students 43% (n=25/58) were Xhosa speaking and 38% (22/58) were Afrikaans speaking. This is an indication that the majority of students on the four year undergraduate diploma nursing course are blacks. Letseka and Malie (2008:3) found that the success rate for throughput on average according to race during 2001-2004 was 69% for blacks, 74% for coloureds, 80% for Indians and 84% for whites in higher education.

Due to the historical fact that blacks and coloureds were excluded from the apartheid education policies they remain lagging behind in performance which is well below the national average (Letseka & Malie, 2008:4).

It can be seen by the data from SANC (2011) figure 5.1, that the students registered for the four year undergraduate diploma nursing course increased from 13 096 in 2005 to 20 581 in 2011. Yet, according to the output figures from SANC for the year 2005 it was only 1 058 and for 2011 this figure was 2 400. It can be seen that there is a growth of approximately 1 000 students who register yearly, yet the output only grows by 200 a year. According to the Department of Health Strategic Plan for Nursing (2012:73), there was a 28% growth in the register for Professional Nurses. The attrition rate of nurses that qualify and then register the next year is 40%, the throughput is estimated to be 50% (but needs investigating) and 18% of professional nurses are not working (Department of Health Strategic Plan for Nursing Education Training and Practice, 2012:23).

Figure 5.1: Growth in students

S A Nursing Council Growth in students/students 2002-2011

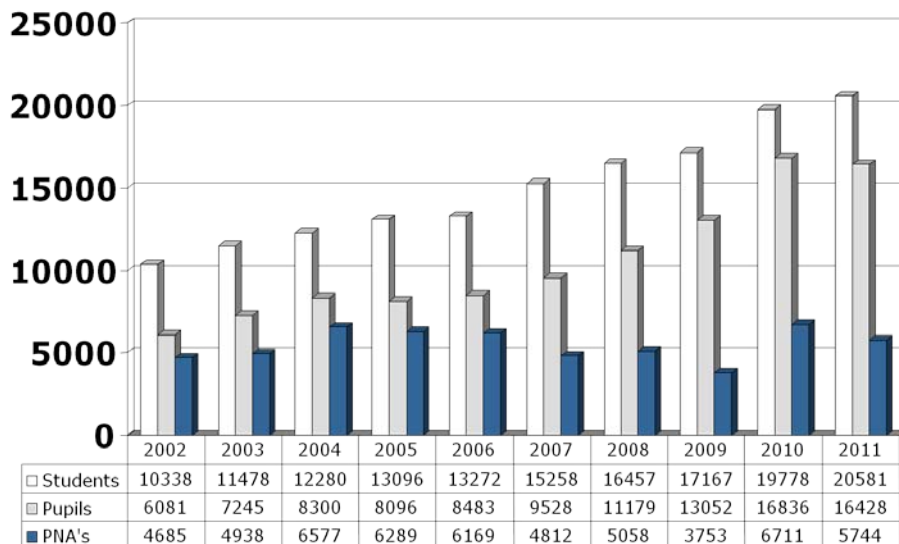
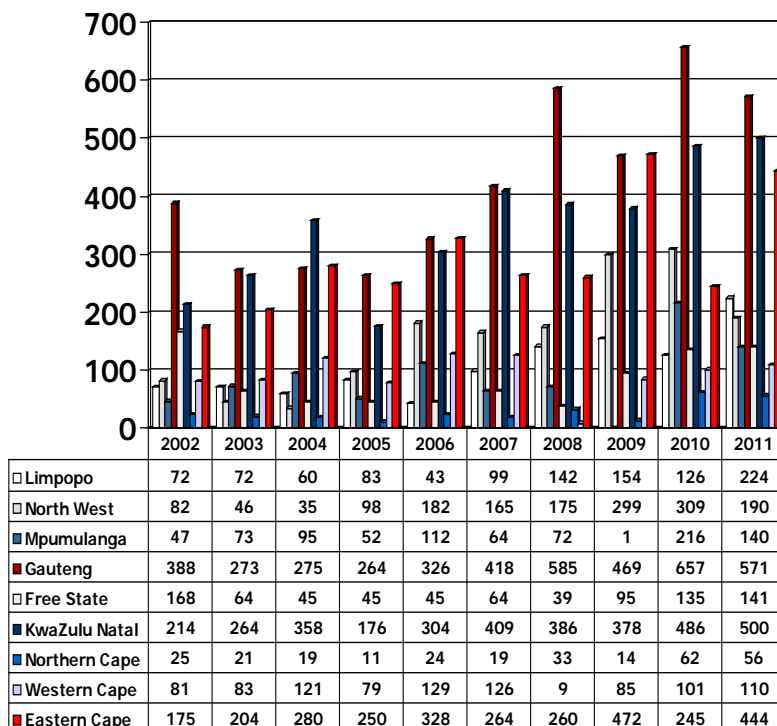


Figure 5.2: Output of four year programme 2002-2011



5.2.2 Determining reasons for attrition

5.2.2.1 Admission criteria

The minimum requirement for the four year undergraduate diploma programme at Cape Peninsula University of Technology (CPUT) as prerequisite, is a National Senior Certificate or equivalent. The rating that needs to be achieved is a 40-49% mark in at least four of the recognized National Curriculum Statement Grades; 20 credit subjects, a 30-39% rate in Mathematics or Mathematical Literacy, 40-49% rating in the official home language and 30-39% in the second language. One of these languages has to be English or Afrikaans.

The requirements therefore for the Basic Nursing qualification from 2009 is, home language 50-59%, first additional language 40-49% Afrikaans or English, Mathematics 40-49% or Mathematical Literacy 50-59% and Life Sciences 50-59% (Cape Peninsula University of Technology, 2012:11 & 18). The students are required to write a Standardized Assessment Test which determines if they will be placed onto the four or five year course. The students on the five year course are required to attend 80% of lectures, practical sessions and tutorials (Jeptha, 2008:22).

Students from the disadvantaged group expressed the same reasons for not completing the programme as traditional students. But in addition to this, they site communication factors, poor academic achievement, financial and lack of social support as reasons for dropping their studies (Kennedy, Mclsaac & Bailey, 2007:10).

5.2.2.2 Language

CPUT changed their language policy from dual languages, namely Afrikaans and English to English only. This has left many students disadvantaged, as the failure rate would probably not be that high if the students were able to write exams in their mother tongue, or in a language that they are proficient in (Jeptha, 2008:23).

From the results of the study at least half of the students had English as their first language in grade 12, 48% (n=28/58) and the others 40% (n=23/58) Afrikaans, with 7% (n=4/58) having Xhosa. Yet the students' home language reflect the opposite in that 43% (n=25/58) spoke Xhosa, then 38% (n=22/58) Afrikaans and lastly 16% (n=9/58) spoke English at home.

With the medium of instruction in the nursing college being English, there is evidence that English was at best the students' additional language and not their first language which will explain the high attrition rate in the first year 55% (n=32/58). There is a diversity of students in Institutions of higher education that come from different backgrounds and cultures. These students might have a dominant language proficiency which might not be in accordance with the one used by the institution. Most Institutions of higher education use English as the medium of instruction, which leads to the students struggling academically because of the language issue (Jeptha, 2008:24).

5.2.2.3 Race and gender

There is a requirement by Institutions of higher education to admit a certain percentage of disadvantaged students to programmes according to the race distribution in the specific area. It can also be seen that according to race 57% (n=33/58) were coloured, 43% (n=25/58) black and 1% (n=2/58) white. The South African Government has placed strong emphasis on equal access to higher education and equal success in graduating in their White Paper 3 (Petersen et al., 2009:99).

Of the students that failed to complete their course 88% (n=51/58) were female and 12% (n=7/58) male. Nursing by tradition has been a female dominated profession due to the fact that it is seen as a caring and compassionate profession. Women have always been seen as the homemakers, looking after the children. Males are starting to also be seen as caring. Nursing is very stereotypical in that the lecturers, the textbooks and the clinical sites have always been female dominated. To a large extent males are also made to feel different in areas such as obstetrics and gynaecology (Kennedy et al., 2007:11).

5.2.2.4 Age and marital status

The majority of students 34% (n=20/58) fell into the 25-29 years category, then 29% (n=17/58) in 20-24 years old and lastly 17% (n=10/58) in the 30-35 years. This would indicate that the students either failed to complete a previous tertiary education course, or was in a different occupation and decided to do nursing. Students might have left to attend to family members that were sick and therefore wanted to return to nursing and complete their course. The marital status of the students was important as 74% (n=43/58) were single, with only 26% (n=15/58) being married. The majority 81% (n=49/58) had 0-1 children and 19% (n=9/58) had 2-4 children.

There are different funding models for student nurse education. These range from full employee status to supernumerary. This is when students enter the working environment to observe nursing care (Department of Health Department of Health Strategic Plan for Nursing Education, Training and Practice, 2012:17). The Western Cape College of Nursing gives the students bursaries. It means that single mothers with children then go into nursing so that they can get a bursary, which then affords them a form of living. This means that these students are going into nursing for the wrong reasons which will in turn lead to attrition.

5.2.2.5 Stressful aspects

The top three aspects that the students felt most stressful about, were subjects 29% (n=17/58), teaching methods 22% (n=13/58) and language 19% (n=11/58). There are several challenges facing nurse educators. These are insufficient numbers of educators, particularly in rural areas, which in turn leave the educators with an increased workload due to an increasing number of students (Department of Health Strategic Plan for Nursing Education, Training and Practice, 2012:18). There is also

insufficient up-skilling of educators in new technologies, as well as continuous professional development that leads to poor quality of teaching, clinical accompaniment and supervision of students (Department of Health Strategic Plan for Nursing Education, Training and Practice, 2012:18).

The students when asked about remedial help acknowledged that 57% (n=33/58) said 'yes' and 41% (n=24/58) said 'no' about receiving help. The students felt that they were unable to make use of this resource. They had to meet with lecturers after the end of the day and this was difficult as they needed to get public transport home. The same applied to the counsellors at their disposal.

It is proposed by the Department of Health Strategic Plan that the National Nursing Education Policy will be in place by 2013. This will mean that all nursing education will fall under higher education and this will hopefully mean that there will be more stringent admission requirements.

With increased stress the students had emotional changes in behaviour. The highest emotional change was depression and then sadness. The family played a big role in support outside of the college. The first persons that the students spoke to were family 43% (n=25/58), then friends 19% (n=11/58) and partners 10% (6/58).

5.2.2.6 Reasons for leaving

In order to assess the student's progress in the programme, summative and formative assessments are done according to the requirements of the faculty board, as well as the requirements set out by the governing body. These will be the National Qualifications Framework and the Formal Technikon Instructional Programmes. The 40:60 or 50:50 assessment system is seen as a fair continuous assessment system with a final summative assessment (Jeptha 2008:38). No final summative assessment mark may be more than 50% of the final assessment result. There are strict criteria for awarding of marks (CPUT 2012:10-11).

The main reasons for attrition were personal problems 50% (n=29/58), academic requirements 45% (n=26/58), communication with lecturers 34% (n=20/58) and financial factors 28% (n=16/58). In the study students attributed their withdrawal due to the fact that they were either sick or had to take care of a parent that was ill and had subsequently passed away. The passing away of the family member has

consequently given them the chance to re-enter their training and complete the course.

Academic requirement as seen can be accounted for nearly half of the attrition that took place. Students had their training terminated due to not meeting summative requirements set out by the Western Cape College of Nursing. It can be seen that 34% (n=20/58) of the students reported having difficulty in communicating with lecturers. This could be an explanation for the fact that these were probably the students whose programmes were terminated. These students were struggling with the academic work and found it difficult to communicate with lecturers. They either never approached the lecturers or they could not understand the work. The high attrition can be explained because secondary school achievements are reliable indicators for nursing participant performance. There is a positive correlation between high school English, Mathematics and Sciences and the nursing marks (Kennedy et al., 2007:9).

Financial reasons were responsible for 28% (n=16/58) of the attrition. The students mentioned that they were the only breadwinners in the family, and therefore found that they were unable to continue due to financial requirements in the family. In the Strategic Plan for Nursing Education it is proposed that the students in the future will be fully funded. This will mean that their tuition, books, study material, living costs, medical aid, indemnity, accommodation, transport and uniforms will be supplied with the understanding that time will be worked back in exchange (Department of Health Strategic Plan for Nursing Education, Training and Practice 2012:29; Kennedy et al., 2007:9).

5.2.3 Trends in Attrition

Nurses make up 40-50% of the healthcare workforce globally. Thus, in order to maintain a viable healthcare system which will provide optimum outcomes, we need to have a sustainable and viable healthcare force (Gaynor, Gallasch, Yorkston, Stewart, Bogossian, Fairweather, Foley, Nutter, Thompson, Stewart, Anastasi, Kelly, Barnes, Glover & Turner, 2007:13). The nursing shortage, increasing education costs and the concern over recruitment and retention make attrition from the undergraduate diploma nursing programme a grave concern worldwide (Kennedy et al., 2007:4).

In the study undertaken, the majority of students who did not complete their course were 55% (n=33/58) coloureds, 43% (n=25/58) blacks and 1% (n=2/58) whites. The year in which the students left were 55 % (n=32/58) in 1st year, 41% (n=24/58) in 2nd year and 3% (n=2/58) in 3rd year. Gaynor et al (2006:27) found that the attrition rate in the United Kingdom and Australia was 20-21%. Essa (2011:253) reported that undergraduate attrition ranged from 6-56%. What can be deduced from the study is that attrition in the first year is high and reduces as the year's progress. The attrition according to race falls in line with the percentage of students accepted according to the quotas. The selection of disadvantaged students due to affirmative action may lead to a higher attrition rate and will also lead to rejection of qualified and privileged applicants (Jeptha; 2008:22). The National Plan for Higher Education set a benchmark for completion rates for Institutions of higher education Institutions at 75% in 2001 (Essa, 2011:253).

Reasons why the students chose nursing as a career was investigated and the findings were as follows: promotion 0% (n=0/58), qualifications 2% (n=1/58), vocation/calling 57% (n=33/58), caring for the sick 24% (n=14/58) and no other choice 16% (n=9/58). Essa (2011:255) found that few of the students had acquainted themselves with what the course entailed, how the lectures would be conducted and what the exam policies or procedures were. This led to the students realizing that they should have chosen another course.

Wright and Maree (2007:597) feel that the student's initial choice of discipline is important as the student might leave the course if they encounter academic difficulty or disillusionment with the course. Students also have misconceptions of nursing regarding the depth of academic knowledge and the responsibility of the nurse.

Students have an unrealistic view of nursing as a career and consequently leave when faced with the realities of the programme. Helping people, working with people and loving people are far removed from the realities (Wright & Maree, 2007:606). The decision to go into nursing becomes an emotional decision, rather than an informed choice of career. Unless this myth and the realities of nursing are not dispelled, the profession will attract students who only come into nursing based on the myth (Wright & Maree, 2007:607-608).

5.3 LIMITATIONS OF THE STUDY

The limitations of this study were that it only involved one nursing college in the Western Cape. Only the undergraduate diploma nursing students that had left their course was part of the study. Undergraduate degree nursing students did not form part of the research.

Due to the fact that the study involved students that had left the undergraduate course from 2007-2010, the return rate was only 58%. It therefore becomes difficult to make generalizations. A large percentage of the students had relocated or changed addresses. A telephonic questionnaire had to be administered and as a result students chose either to answer or refused to answer the questionnaire.

5.4 CONCLUSIONS

This study identified the fact that attrition is very complex and that internal, as well as external factors need to be taken into account. According to the Conceptual Framework of Tinto's Student Integration Theory, academic achievement at school does play a part in the student's success rate in tertiary education. Due to the fact that affirmative selection needs to take place, some of the students were not able to cope with the academic requirement of the course. In spite of the lecturers being available and remedial classes being given, the students were unable to take advantage due to the fact that they had to get transport home. The lecturers were only available for one-on-one sessions after class in the afternoon.

Language played a large role in the students' understanding of the academic material. Due to the majority's home language being Xhosa and the language for lectures being conducted in English, which was the majority of the student's second language, students experienced this as a barrier to cope. What added to the student's inability to cope was that the classes were very big and the lecturer's style of teaching was not conducive to this situation.

Due to the shortage of nurses and the disease burden in the country, the students are not afforded the opportunity to be superfluous and therefore be properly taught in the clinical sites in order to become part of the workforce.

Many students come into nursing with relatively very little knowledge of what can be expected, eventually leading to the students realizing that they have made the wrong career choice (Urwin et al., 2010:203).

5.5 RECOMMENDATIONS

There are many factors that play a role in undergraduate diploma nursing student attrition. This is of vital importance to correct, especially in South Africa where there is a shortage of nursing staff to cope with an overwhelming burden of disease. The researcher's recommendations are therefore as follows.

5.5.1 Selection criteria

- Students at secondary school level need to have a very clear understanding of the future path they want to follow and need to be guided in their choice of subjects.
- This is especially of importance in the last two to three years of secondary school. The subjects selected need to be in line with their career path.
- In-depth discussions need to be held with students who do not qualify to study in their first field of choice. The participant's perception of nursing need to be explored to make sure that they are fully aware as to what the course entails.
- Equal access should be available to all students, especially those that are economically and educationally disadvantaged, as well as providing an equal opportunity to succeed (Petersen et al., 2009:99).

5.5.2 Nursing as a profession

- The image of nursing needs to be re-addressed so that it is once again seen as a career of choice. This can only be done by salary adjustment, addressing working conditions and changing the nurse's attitude to one that portrays a professional image (Department of Health Strategic Plan for Nursing Education, Training and Practice, 2012:18).
- An opportunity needs to be created for students to get a proper orientation to nursing.
- The realities of nursing need to be brought to the students attention by introducing a proper job shadowing programme in the future students senior year of study at school.

- There needs to be active marketing of nursing where students need to be able to do job shadowing. This will then give them the knowledge of the academic and practical aspects associated with nursing.
- The profession needs to be marketed at career days and wellness days for the community where people can get a better idea of what nurses do and what their jobs entail.

5.5.3 Academic recommendations

- All colleges offering the four year diploma course need to be integrated into Institutions of higher education. This will then lead to the students having to comply with a more stringent selection criterion.
- New clinical departments need to be established either at the colleges or hospitals (Department of Health Strategic Plan for Nursing Education, Training and Practice, 2012:29).
- There needs to be a bridging year introduced that is specifically aimed at getting the students proficient in literacy and numeracy.
- Students that are seen to be struggling need to be flagged early and buddied up with a more academically inclined student's to assist them.
- More lecturers need to be employed so that the workload can be evenly distributed for more time to be spent on helping students that are not coping (Department of Health Strategic Plan for Nursing Education, Training and Practice, 2012:18).
- More lecturers also need to be employed to take over from the aging lecturers, of whom the majority is falling into the retirement age (Department of Health Strategic Plan for Nursing Education, Training and Practice, 2012:18).
- The lecturers need to be up-skilled so that their lecturing can be more in line with different teaching methods, as this will help in delivering the course material in a more effective manner (Department of Health Strategic Plan for Nursing Education, Training and Practice, 2012:18).
- The facilities at all nursing colleges need to be up-graded, which will give the students the best opportunities to achieve. Facilities that need up-grading will be the library, media facilities, buildings and classrooms (Department of Health Strategic Plan for Nursing Education, Training and Practice, 2012:19).

- There needs to be some form of financial assistance that will benefit the students. This may mean subsidizing the students so all their financial needs, as well as education is taken care of (Department of Health Strategic Plan for Nursing Education, Training and Practice, 2012:29).

5.5.4 Future research

Very little research has been carried out on undergraduate diploma nursing students. In-depth research needs to be carried out to determine if other nursing colleges are experiencing the same problems. It also needs to be established why the students are not successful in their studies, in spite of all the remedial systems that are in place. More in-depth research is needed on the factors influencing the students' understanding of nursing, the selection process and factors that affect attrition.

5.6 CONCLUSIONS

It is evident from the research that there are more men as well as older students going into nursing. The reasons for going into nursing are not always for the right reasons. There definitely needs to be more thought given to the selection criteria, especially with the disadvantaged students. Remedial systems need to be re-looked at and improved to increase throughput figures. The financial assistance given to students needs to incentivise the students to work hard and accomplish what they set out to achieve. There also needs to be smaller classes so that more individualized attention can be given to students.

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APPENDICES

Appendix A: Questionnaire

Dear Participant, by completing this questionnaire you have agreed to participate in this research project. Thank you very much.

If any of the questions are not applicable please indicate with an N/A

Indicate the year of study in which you left:

Section A: Demographic data

1. What is your gender?

Male	Female
------	--------

2. To which age group do you belong?

< 19 yrs	<input type="text"/>
20-24yrs	<input type="text"/>
25-29yrs	<input type="text"/>
30-34yrs	<input type="text"/>
35-40yrs	<input type="text"/>
>40yrs	<input type="text"/>

3. What is your home language?

English	<input type="text"/>
Afrikaans.....	<input type="text"/>
Xhosa	<input type="text"/>
Zulu	<input type="text"/>
Sesotho	<input type="text"/>
Other (Specify)..	<input type="text"/>

4. Where do you come from?

Western Cape ...

Eastern Cape

Free State

Gauteng.....

Kwa-Zulu Natal..

Other (Specify) ..

5. What is your marital status?

Married.....

Divorced.....

Single.....

Other (Specify)...

How many children do you have? (If any)

6. Were your family supportive of your studies?

Yes	No
-----	----

7. 8. How was your course funded?

Self funded.....

Bursary.....

Funded by work institution.....

Section B. Secondary school history

8. What medium of instruction was used in grade 12?

English

Afrikaans.....

Xhosa.....

Zulu.....

Sesotho.....

Other (Specify).....

9. Which of the following subjects did you take in grade 12?

English.....

Afrikaans.....

Mathematics/Maths Literacy.....	<input type="checkbox"/>
Biology/Life Sciences.....	<input type="checkbox"/>
Physical Science	<input type="checkbox"/>

10. Do you feel that any of the above subjects were relevant to nursing?

Yes	No
-----	----

Section C. Tertiary Education:

11. Indicate how you were admitted to the course?

Through application.....	<input type="checkbox"/>
Through recognition of prior learning...	<input type="checkbox"/>
Study leave.....	<input type="checkbox"/>

12. Why did you choose to study nursing?

Want a job that would offer promotion...	<input type="checkbox"/>
Want a job with qualifications.....	<input type="checkbox"/>
Vocation/calling.....	<input type="checkbox"/>
To care for the sick.....	<input type="checkbox"/>
No other choice.....	<input type="checkbox"/>
Other.....	<input type="checkbox"/>

If you answered other, could you tell me what?

13. Are you computer literate?

Yes	No
-----	----

14. Did you have access to a computer?

Yes	No
-----	----

15. Did you have access to a Library?

Yes	No
-----	----

16. Where did you have access to a library?

Collage.....	<input type="text"/>
University.....	<input type="text"/>
Municipality.....	<input type="text"/>

17. Did you have the required textbooks?

Yes	No
-----	----

18. How did you obtain the required textbooks for your course?

Bought.....	<input type="text"/>
Borrowed.....	<input type="text"/>
Share.....	<input type="text"/>
Make copies.....	<input type="text"/>
Library.....	<input type="text"/>
Other (Specify).....	<input type="text"/>

19. Which one of the following aspects of the course did you find most stressful?

(Only choose one option)

Teaching methods.....	<input type="text"/>
Language.....	<input type="text"/>
Lectures.....	<input type="text"/>
Subjects.....	<input type="text"/>
Practical.....	<input type="text"/>
Financial.....	<input type="text"/>
Colleagues.....	<input type="text"/>

20. What is the one emotional change that you experienced when you were stressed?(Only choice one option)

Anger.....	<input type="text"/>
Depression.....	<input type="text"/>
Isolation.....	<input type="text"/>
Despair.....	<input type="text"/>
Sadness.....	<input type="text"/>

21. Who was the first person you turned to for support?(Only choose one option)

Family.....	<input type="text"/>
Friends.....	<input type="text"/>
Partner.....	<input type="text"/>
Lecturers.....	<input type="text"/>
Religious person.....	<input type="text"/>
Other (Specify).....	<input type="text"/>

22. Were there systems in place for remedial help?

Yes	No
-----	----

Please choose from the following options, being that you strongly agree to that you strongly disagree, by marking with an X in the box, as to the reasons why you decided to leave nursing.

Eg: I am feeling happy today.

Strongly agree	Agree	Disagree	Strongly disagree
X			

23. Personal problems were the reason for leaving nursing.

Strongly agree	Agree	Disagree	Strongly disagree

24. Health problems were the reason for leaving nursing.

Strongly agree	Agree	Disagree	Strongly disagree

25. Financial problems were the reason for leaving nursing.

Strongly agree	Agree	Disagree	Strongly disagree

26. High academic requirements were the reason for leaving nursing.

Strongly agree	Agree	Disagree	Strongly disagree

27. Clinical practice requirements were the reason for leaving nursing.

Strongly agree	Agree	Disagree	Strongly disagree

28. Obstacles in communication at clinical sites with peers and seniors were the reason for leaving nursing.

Strongly agree	Agree	Disagree	Strongly disagree

29. 31. Obstacles in communication with lecturers were the reason for leaving nursing.

Strongly agree	Agree	Disagree	Strongly disagree

30. Lecturer's attitudes towards students were the reason for leaving nursing.

Strongly agree	Agree	Disagree	Strongly disagree

I would like to take this opportunity to thank you very much for your participation.

Appendix B: Ethical approval from Stellenbosch University



✓
Done

Faculty of Health Sciences · Department of Health, Behaviour and Society
Stellenbosch University · Private Bag 11 · Matieland · 7400 · Stellenbosch · South Africa

21 January 2011

MAILED

Miss L West
Department of Nursing
2nd Floor
Teaching Block

Dear Miss West

Factors associated with attrition in the R425 undergraduate nursing programme.

ETHICS REFERENCE NO: N10/12/406

RE : APPROVED WITH SUGGESTIONS

It is a pleasure to inform you that a review panel of the Health Research Ethics Committee has approved the above-mentioned project on 20 January 2011, including the ethical aspects involved, for a period of one year from this date.

The reviewer has suggested the following:

1. The questionnaire could be significantly improved and should be tested for face and content validity by appropriate experts.
2. Questions 13, 20, 21 and 22 in particular should be reconsidered to ensure these questions will provide information that supports the study objectives and are not subject to subjective interpretation by the participant e.g. what is the meaningful difference between 'career' and 'profession' and will this difference be interpreted in the same way by all participants?
3. What is the relevance of questions 21 and 22?
4. Question 24 is very important but may be better if a Likert Scale was used. (A Likert Scale) may also be beneficial in other questions.
5. Please correct the spelling mistakes.

This project is therefore now registered and you can proceed with the work. Please quote the above-mentioned project number in ALL future correspondence. You may start with the project. Notwithstanding this approval, the Committee can request that work on this project be halted temporarily in anticipation of more information that they might deem necessary.

Please note a template of the progress report is obtainable on www.sun.ac.za/rds and should be submitted to the Committee before the year has expired. The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly and subjected to an external audit.

Translations of the consent document in the languages applicable to the study participants should be submitted.

Federal Wide Assurance Number: 00001372
Institutional Review Board (IRB) Number: IRB0005239

25 January 2011 09:12

Page 1 of 2



Appendix C: Ethical approval



UNIVERSITEIT · STELLENBOSCH · UNIVERSITY
jou kennisvenoot · your knowledge partner

26 June 2012

MAILED

Miss L West
Department of Nursing
2nd Floor
Teaching Block

Dear Miss West

Factors associated with attrition in the R425 undergraduate nursing programme.

ETHICS REFERENCE NO: N10/12/406

RE : AMENDMENT

Your letter dated 13 May 2012 and received 23 May 2012 refers.

The Chairperson of the Health Research Ethics Committee approved the amended documentation in accordance with the authority given to him by the Committee.

The following amendments were approved:
1. Amendment approved.

Please note that you are kindly requested to clear the decrease in study numbers with the statistics expert.

Yours faithfully


MRS MERTRUDE DAVIDS
RESEARCH DEVELOPMENT AND SUPPORT
Tel: 021 938 9207 / E-mail: mertrude@sun.ac.za
Fax: 021 931 3352

26 June 2012 14:53

Page 1 of 1



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Verbind tot Optimale Gesondheid · Committed to Optimal Health
Afdeling Navorsingsontwikkeling en -steun · Division of Research Development and Support
Posbus/PO Box 19063 · Tygerberg 7505 · Suid-Afrika/South Africa
Tel.: +27 21 938 9075 · Faks/Fax: +27 21 931 3352



UNIVERSITEIT-STELLENBOSCH-UNIVERSITY
jou kennisvenoot - your knowledge partner

26 June 2012

MAILED

Miss L West
Department of Nursing
2nd Floor
Teaching Block

Dear Miss West

Factors associated with attrition in the R425 undergraduate nursing programme.

ETHICS REFERENCE NO: N10/12/406

RE : PROGRESS REPORT

At a review panel meeting of the Health Research Ethics Committee that was held on 22 June 2012, the progress report for the abovementioned project has been approved and the study has been granted an extension for a period of one year from this date.

Please remember to submit progress reports in good time for annual renewal in the standard HREC format.

Approval Date: 22 June 2012

Expiry Date: 22 June 2013

Yours faithfully

MRS MERTRUDE DAVIDS
RESEARCH DEVELOPMENT AND SUPPORT
Tel: 021 938 9207 / E-mail: mertrude@sun.ac.za
Fax: 021 931 3352

26 June 2012 14:55

Page 1 of 1



Fakulteit Gesondheidswetenskappe · Faculty of Health Sciences



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Appendix D: Ethical approval WCCN

Dear Lindsey

As far as I am concerned you may go ahead as I am convenor of the internal WCCN ethics committee I spoke with Mr Govin this afternoon pertaining the valuable info your reseearch will deliver.

Mr Govin is the Director of the Directorate WCCN and has delegated the task to me as convenor of the internal research ethics committee of WCCN. (WCCN is now officially adirectorate), Head Office has allowed for the establishment of the internal research ethics committee hence my approval of your research project.

Time is of the essence and I know you want to complete in order to submit for the March graduation, therefore I take full responsibility for granting the approval.

Please get into contact with Mrs Rafferty as she is the Head of the Metro East Campus (where your research is to be conducted)

Sincerely

Theresa

Theresa M Bock

Head of Campus

Metro East Campus of the Western Cape College of Nursing

Tel 021 940 4567

Fax 021 940 4543

Terebock@pgwc.gov.za

"A love affair with knowledge will never end in heartbreak."

>>> Lindsay West <Lindsay.West@netcare.co.za> 08/22/11 2:39 PM

>>>

Dear Teresa

Thank you so much for your prompt feedback.I just want to clarify,that once Mr D Govin gives his consent I will then be able to contact Mrs Rafferty and go ahead with my research.

Thanking you

Lindsay

From: Teresa Bock [terebock@pgwc.gov.za]
Sent: 22 August 2011 11:42 AM
To: Lindsay West; Dudley Govin
Subject: Re: Fwd: Research for Masters

Dear Lindsay

On behalf of the Western Cape Collge of Nuirsing:

With regards to your application to conduct your research here at WCCN, Head Office has not yet given feedback to Mr Govin with regards to consent. However during a discussion with the WCCN research ethics committee ther is no reason why approval cannot be granted. This study should provide the institution with valuable insight into the attrition rate and needs of students.

The Ethics committee requests that the findings be presented to this Institution.

We wish you success with your studies.

Sincerely

Theresa M Bock
Head of Campus
Metro East Campus of the Western Cape College of Nursing
Tel 021 940 4567
Fax 021 940 4543
Terebock@pgwc.gov.za
"A love affair with knowledge will never end in heartbreak."

>>> Dudley Govin 2011/08/22 08:35:42 AM >>>

>>> Lindsay West <Lindsay.West@netcare.co.za> 2011/03/30 07:45 AM >>>

Dear Mr Govin

As per telephone conversation yesterday.I am a Masters participant from Stellenbosch University and currently in my

second year. I am therefore required to do research this year to complete the requirements for my degree. My research that I would like to do is "Possible reasons for attrition in the R425 undergraduate programme", it will require me sending questionnaires to the students that have dropped out of the course going back 5 years. I am hoping to do this research at the Western Cape collage of Nursing.

I have attached my proposal as well as my ethical approval document from Stellenbosch University.

I will be most greatfull if you could give me direction in who to contact and what documentation will be required.

Thanking you
Yours sincerly
Lindsay West

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Appendix E: Participant information leaflet and consent form

TITLE OF THE RESEARCH PROJECT:

Factors associated with attrition in the R425 undergraduate nursing programme

REFERENCE NUMBER:

PRINCIPAL INVESTIGATOR: Miss Lindsay West

ADDRESS: 52 Weimar Street.

Parow West.

7500

CONTACT NUMBER: Cell Number: 0824431296

Work Number: 021 480-6149

You are being invited to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please feel free to contact me on the above telephone numbers if you have any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the Committee for Human Research at Stellenbosch University and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

What is this research study all about?

- All students will complete a questionnaire telephonically and verbal consent will be obtained.
- This project is designed to find out the reasons for why students on the R425 nurse programme do not complete the course. I am also looking to see if there is any patterns that may lead to students leaving the course. Once the project is complete I hope to be able to look at measurements/ strategies that can be put into place to help prevent nursing students from leaving there course.

Why have you been invited to participate?

- My project is looking at all nursing students that have left their nursing course over the last 5 years, specifically looking at the reasons for not completing the course. Therefore all the students have been invited to participate.

What will your responsibilities be?

- Your only responsibility will be to please complete the questionnaire telephonically.

Will you benefit from taking part in this research?

- By taking part in this project you will be helping to explain what the reasons are for not completing your nursing course and will therefore benefit future students by giving a better understanding to the problems so that measurements/strategies can be put in place to prevent this from happening to other nursing students.

Are there risks involved in your taking part in this research?

- There are no risks involved in participating in this project as it will be totally anonymous. The information on the questionnaire will be used to determine the reasons behind participant nurses not completing their course.

If you do not agree to take part, what alternatives do you have?

- You are not under any obligation to participate in this project. If at any time you feel that you want to stop you may do so without there being any negative comebacks.

Who will have access to your records?

The information collected will be confidential and protected. All information will only be accessible by myself and my supervisor. All the information will be kept locked up in a cupboard and I will be the only one with access. All students will be treated as anonymous by giving all the questionnaires a number rather than using the person's name.

Will you be paid to take part in this study and are there any costs involved?

No you will not be paid to take part in the study. All questionnaires will be done telephonically. There will be no costs involved for you, if you do take part.

Is there anything else that you should know or do?

- Ethical approval has been obtained from the Stellenbosch Ethics Committee as well as the Western Cape College of Nursing.
- You can contact the Committee for Human Research at 021-938 9207 if you have any concerns or complaints if have not been adequately addressed.
- You can copy this information and consent form for your own records.

Declaration by participant

By signing below, I agree to take part in a research study entitled

“Factors associated with attrition in the R425 undergraduate nursing programme”

declare that:

- I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.

- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) on (*date*)
2011.

.....
.....

Signature of participant

Signature of witness

Declaration by investigator

I (*name*) declare that

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use a interpreter. (*If a interpreter is used then the interpreter must sign the declaration below.*)

Signed at (*place*) on (*date*)
2011.

.....
.....

Signature of investigator

Signature of witness

Declaration by interpreter

I (*name*) declare that:

- I assisted the investigator (*name*) to explain the information in this document to (*name of participant*) using the language medium of Afrikaans/Xhosa.

- We encouraged him/her to ask questions and took adequate time to answer them.
- I conveyed a factually correct version of what was related to me.

- I am satisfied that the participant fully understands the content of this informed consent document and has had all his/her question satisfactorily answered.

Signed at (*place*) on (*date*)
2011.

.....
.....

Signature of interpreter

Signature of witness

prohibited.

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Appendix E: Certificate of editing



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Member: South African Translators' Institute (SATI)

3 Beroma Crescent
Beroma
Bellville 7530

TO WHOM IT MAY CONCERN

This letter serves to confirm that the undersigned

ILLONA ALTHAEA MEYER

has proof-read and edited the document contained herein for language correctness.

(Ms IA Meyer)

Appendix F: Letter of confirmation of formatting



To whom it may concern

This letter serves as confirmation that I, Lize Vorster, have performed the technical formatting of Lindsay Judy West's thesis which entails ensuring its compliance with the Stellenbosch University's technical requirements.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Lize Vorster', is written over a simple, hand-drawn triangular shape.

Lize Vorster