

**The knowledge and utilization of contraception and the attitudes
towards pregnancy prevention among undergraduate nursing
students at the University of the Western Cape**

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**A minithesis submitted in partial fulfillment of the requirements for the
degree of Magister Curationis in the School of Nursing,
University of the Western Cape**

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Douglas David-John Newman

Keywords:

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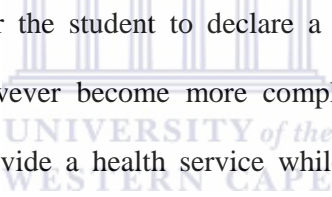


Abstract

The knowledge and utilization of contraception and the attitudes towards pregnancy prevention among nursing students at the University of the Western Cape

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It is not mandatory for the student to declare a pregnancy to her educational institution. It does however become more complicated for the student nurse, because she has to provide a health service while she is a student during her clinical placement. The researcher has noticed that student nurses do fall pregnant during their undergraduate studies at the University of the Western Cape. The researcher was unsure why this phenomenon is occurring amongst undergraduate nursing students. He identified the need to measure the level of knowledge of pregnancy prevention amongst undergraduate nurses, their level of utilization of such services and their attitudes towards falling pregnant during their studies.

This study is of a quantitative nature whereby the researcher made use of a descriptive design. The method of data collection utilized was an anonymous self

administered questionnaire form. The population under study was the registered undergraduate nursing students in 2008 at the University of the Western Cape. This population consisted of 1031 individuals. Their ethnic background represents the South African demography. An exhaustive sampling approach was used and 401 individuals gave consent to participate in the study.

Through this research the researcher hypothesised and proved that the level of knowledge of contraception amongst undergraduate student nurses is indeed inadequate and that this low level of knowledge on the subject area leads to incorrect and inconsistent and non use of contraception in their own lives.



Declaration

I declare that, *The knowledge and utilization of contraception and the attitudes towards pregnancy prevention among nursing students at the University of the Western Cape*, is my own work, that it has not been submitted before for any degree or examination at any other university and that all sources I have used or quoted have been indicated and acknowledged as complete references.



Douglas David-John Newman

July 2009

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I have grown so much during the time that I completed this study and I have to express my appreciation to the people that supported me throughout this process.

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Chapter One

1.1 Introduction

The third Millennium Development Goal, as stated by the United Nations, is to achieve gender equality and women's empowerment. The South African government's commitment to promote gender equality is established in key policies and legislative measurements. Participation of Africans in Higher Education (HE) has increased and there is a steady increase in the number of black women attaining tertiary education (Brown, 2006). The draft national plan for higher education in South Africa (2001) stated that gender equity has been achieved in terms of total enrolments at Higher Education Institutions (HEI) where 52% of students are females. The green paper on Higher Education Transformation (1996) stipulated that all nursing education will be incorporated into universities and the jurisdiction will be transferred to the Department of Education (Manganyi, Samuel, Mosala, du Toit, Reddy, & Bundy, 1996). Recent statistics on the nursing population in South Africa shows that the profession consists of 94.2% females and 5.88% males. The incorporation of nursing in the HEI may have contributed to the fact that the proportion of female students has significantly increased over the years in South Africa and that gender equity in HEI is increasing.

The enrolment of female students may be increasing but these students are faced with challenges such as falling pregnant during their study years, amongst other gender related issues affecting women. Pregnancy may contribute to attrition rates of undergraduate female students (Ehlers, 2003).

The minister of Education, Naledi Pandor, stated that South Africa has a 50% dropout rate in tertiary education (Africa Higher Education: Student survey project, 2007). Pregnancy during undergraduate studies may further contribute to nursing staff shortage that has reached a global crisis and is having an extensive impact on the provision of health services worldwide, including South Africa (Arhin & Cormier, 2008). The ageing of new undergraduate students may contribute to the increase of pregnant undergraduate students. Statistics from the South African Nursing Council reveal that the mean age of students commencing their nursing studies is 26 years of age and the mean age of completion is 30 years of age (Sanc-Age Statistics 2006).

In the light of the human resources crisis that the Department of Health is facing, they developed a plan to increase the number of professional nurses trained by making bursaries available to undergraduate nursing students. This attractive package stimulated student enrolments. At UWC the total number of student enrolments increased from 528 in 2004, to 1062 in 2007. It is however noted that the throughput rate in 2007 was 60% (Khanyile, 2008).

The problem that arises is the increased number of pregnancies at nursing education institutions, including the University of the Western Cape (UWC), School of Nursing (SoN), during studies. The researcher hypothesized that the lack of knowledge and underutilization of contraceptives, including the students' attitudes towards pregnancy, contributes to increased pregnancy rates and more risky behaviour.

It is the purpose of the study to test the hypothesis among undergraduate student nurses at UWC, where it was identified that pregnancy among students is one of the problems facing female students in general. It is one of the limitations of this study that only student nurses registered in 2008 at UWC SoN will be the population under study.



1.2 Problem Statement

There has been an increase in pregnancies among nursing students in the past years. According to the South African labour law, an individual has to take ten weeks of maternity leave (The Rules Concerning Leave). This can have a negative impact on the students' completion of the clinical practica which is a requirement of nursing qualification in order to be registered as a professional nurse. Incomplete clinical hours can prevent them from gaining entry to the exams. This phenomenon might contribute to the high attrition rates and the poor throughput rates that the South African higher education institutions are suffering from.

The researcher believes that the increase in pregnancy rates is due to the limited knowledge and under utilization of contraceptives among students. He also

believes that a negative attitude towards pregnancy prevention may lead to the current problem.

1.3 Aims of the Research

The aims of this study are threefold. The first aim was to determine the level of knowledge that the undergraduate nursing student poses in relation to contraception methods. The second aim was to explore the utilization of pregnancy prevention measures while they are registered students, and finally, the attitudes towards pregnancy and pregnancy prevention was assessed during this study.



1.4 Research Objectives

The objectives of this study were to:

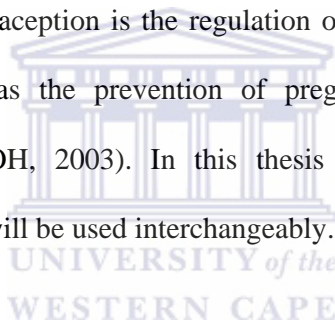
- 1.4.1 Determine contraceptive utilization among student nurses who are sexually active
- 1.4.2 Assess their level of knowledge about contraceptive measures
- 1.4.3 Explore other pregnancy prevention measures utilized by undergraduate student nurses
- 1.4.4 Explore attitudes towards pregnancy prevention and falling pregnant among undergraduate nurses

1.5 Definition of Concepts

Pregnancy: Pregnancy can be defined as having a child or young developing in the uterus (Branford, 1994). In this thesis pregnancy will be closely defined as being in a state with developing products of conception in the uterus.

Student Nurse: A student nurse is an individual, either male or female, that is studying towards undergraduate bachelor's degree in nursing science, which will lead to registration as a registered nurse and midwife at the SANC.

Contraception: Contraception is the regulation of reproduction (Hall, 1977). It can also be defined as the prevention of pregnancy through temporary or permanent means (DOH, 2003). In this thesis the terms contraception and pregnancy prevention will be used interchangeably.

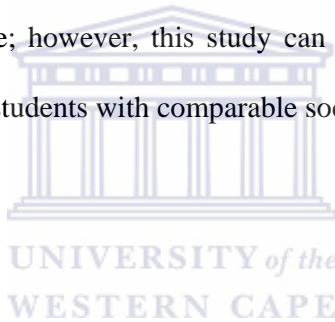


1.6 Hypothesis

It is assumed that the level of knowledge of contraception and pregnancy prevention among student nurses is inadequate. This poor knowledge will also affect their utilization of such methods negatively.

1.7 Limitations

HIV and AIDS, is a reality that coincides with sexual activity and pregnancy. The researcher has decided that he will not investigate the issue with utilization and knowledge of contraception due to the fact that this research is done as part of a structured masters program and time is a limitation. The study is limited to undergraduate nursing students at the Faculty of Community and Health Science at UWC. It would be difficult to generalize the findings and make it applicable to post graduate students and other students in the faculty. Further study would be needed for this purpose; however, this study can easily be generalized to other undergraduate nursing students with comparable socio-economic circumstances.



1.8 Conclusion

In this chapter the reader was introduced to the topic with the necessary background and introduction. The aims and objectives of the study were also clearly set out in a logical manner. A Statement was made with regards to the problem at hand and limitations were identified at this early stage.

In the next chapter literature will be reviewed. The literature will be categorized under pregnancy, pregnancy in higher education and knowledge of students regarding pregnancy prevention, emergency contraception and pregnancy. This is done in order for the reader to clearly understand the necessity to study the

knowledge and utilization of contraception and the attitudes towards pregnancy prevention among nursing students.



Chapter 2

Literature Review

2.1 Introduction

In this chapter literature will be reviewed. The literature will be categorized under pregnancy, pregnancy in higher education and knowledge of students regarding pregnancy prevention, emergency contraception and pregnancy. This is done for the reader to clearly understand the necessity to study the knowledge and utilization of contraception and the attitudes towards pregnancy prevention among nursing students. Repeated paragraph

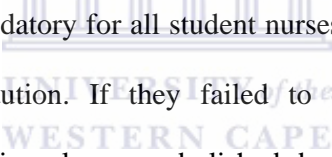
2.2 Pregnancy

Pregnancy may have a negative impact on an individual's health and educational path. Becoming pregnant during undergraduate studies leave students with a couple of options. The student may both have the baby and try to continue her study. She may opt for adoption. Have her support system raise the baby while she is completing her studies. She may have an abortion or she may discontinue her studies to become a full time mother.

I was at university and if I had this baby I would not have been able to complete my studies. I (sic) feeling very unsecure about that 'cause it was very important to me (Suffla, 1997-~~is this an official reference or a quote from a student?~~). In this study the student opted for a termination of the unplanned pregnancy.

This study is of great value because it explores the feelings that the student has to deal with while she is pregnant and the choices that she makes. This study is of a qualitative nature and it does not study the magnitude of the problem.

2.3 Pregnancy during Higher Education



Before 1994 it was mandatory for all student nurses to report their pregnancies to their educational institution. If they failed to do this they were liable to disciplinary action. This rule was abolished because it was unconstitutional (Ehlers, 2003).

The South African constitution thus gives the student nurse the right to be pregnant while she is pursuing her undergraduate studies, but this still does not alleviate the problems that she may encounter what coincides with her pregnant state.

Lam & Seekings, 2005, did a survey examining transitions to adulthood in urban South Africa. They found pregnancy rates to be highest amongst Coloured females at most ages even though African females may report the onset of a sexual encounter at an earlier age. Fewer Coloured females reported to have been sexually active 57% vs. 91% for African females, but 37% of the Coloured

women fell pregnant while only 25% of the African women conceived. This is further supported in a study done by (Frantz, 2006) at UWC on physiotherapy students where she has shown that drug and sexual activity increase as the year level of students' increase. During their first year only 25% of students reported to be sexually active but this number has nearly doubled to 40% when they reach their fourth year of studies.

The expectations that the university have for student nurses is extremely high when it comes to completion of modules and clinical practice. As stipulated in the clinical workbook for midwifery of UWC, students have to have at least 80% clinical attendance in order to qualify for examination of the particular module. Clinical hours can be defined as the time that the student spends in clinical practical, tutorials and theoretical lectures. The nursing council has set out in their regulation nr. 425 of 1985 that a student nurse has to complete 4000 clinical hours during their training in order for them to register with the council as to practice as a professional nurse. These factors make it extremely difficult for the student nurse to successfully complete her studies if it coincides with a pregnancy. With an uncomplicated pregnancy the student would have to take four weeks leave before the delivery and at least six of weeks after the confinement to recover, before she can continue with her study and clinical practice responsibilities (BASIC CONDITIONS OF EMPLOYMENT ACT, 75 of 1997:3(25)). The leave period will vastly increase should any complication arise during the pregnancy, confinement or the puerperium.

All of the abovementioned factors make it difficult for the student nurse to successfully complete her undergraduate degree within the specified four years. This gives the researcher the motivation to look into the stated problem.

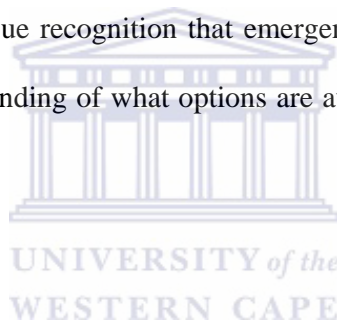
2.4 Knowledge of Students Regarding Pregnancy Prevention, Emergency Contraception and Pregnancy

Young adults or students in South are sexually active and 31% between the ages of 12-17 years have had intercourse. Many of these young adults may not be fully prepared for their first sexual encounter and may lack knowledge and information regarding issues such as protection against HIV, pregnancy and other sexual diseases. It has been recorded that students at HEI are at a higher risk to participate in sexual activities (Roberts, Moodley, & Esterhuizen, 2004) (Frantz, 2006).

A study done in Durban on tertiary students showed that most students reported that they had received life orientation skills at secondary level regarding contraceptives and pregnancy. Despite this knowledge 31.2% reported of having unprotected sexual activities in casual relationships. Most of the students who used contraceptives used a condom (Roberts, Moodley, & Esterhuizen, 2004). Emergency contraceptives (EC) is not well known and more than half of respondents in both (Roberts, Moodley, & Esterhuizen, 2004) and (Celik, Ekerbicer, Ergun, & Tekin, 2007) have not heard about EC to prevent pregnancy. Students at the SoN at UWC receive information regarding family planning in

their second and third year of their Nursing studies. They also complete the midwifery module in their third year of study. The module descriptor includes issues such as different contraceptive methods and pregnancy. (http://www.uwc.ac.za/portal/_downloads/yearbooks/uwc_yearbook_2007_community.pdf).

Nursing students in three main HEI in Durban, South Africa, as well as Midwifery students in a HEI in Turkey showed limited knowledge of contraception. Knowledge is a concept generally difficult to measure and the term could be taken loosely represent a vague recognition that emergency contraception exists rather than a general understanding of what options are available (Roberts, Moodley, & Esterhuizen, 2004).

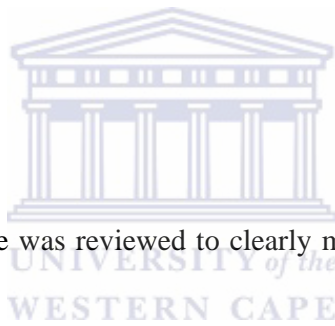


Taking into consideration the fact that student nurses and tertiary students have a very low knowledge of contraception, the researcher has come to the conclusion that there might be a problem with unwanted and unplanned pregnancies amongst student nurses.

In 2001 Ehlers did a study amongst pregnant South African student nurses. She focused on the problems experienced by pregnant student nurses. This study is of much value, but the researcher feels that this study placed the focus on the pregnant nurse and the researcher feels that he needs to focus on the student nurse that is not yet in the so called pregnant situation.

Taking into consideration the fact that the South African government posted a plan for higher education with a particular focus on the output of graduates, the fact that there are a growing number of female students in the system and the fact that the dropout rate is too high; The abovementioned literature points to the fact that the knowledge of contraception amongst student nurses is inadequate. The need has been identified to measure the level of knowledge of contraception methods amongst undergraduate nurses, their level of utilization of such services and their attitudes towards falling pregnant during their undergraduate studies.

2.5 Conclusion



In this chapter literature was reviewed to clearly make the reader understand the necessity of this study.

In the next chapter the researcher will present the methodology that was utilized in this research.

Chapter 3

Research Methodology

3.1 Introduction

In the previous chapter, literature was reviewed that steered the researcher in the direction of performing this particular study. He did not only look at the data and recommendations of other related studies, but also the different methodologies used.

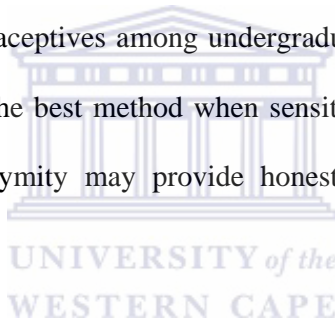
In this chapter, the researcher will present the method that he used to collect the data that was needed to perform this study. The study design will be clearly explained together with the sample, sampling technique and data collection method.

The questionnaire will be explained in detail with reference to all the different sections that it comprised and how the different sections fits in with the objectives of this study.

In the last part of this chapter ethical issues are addressed and all technical problems that the researcher encountered with the data collection are discussed.

3.2 Study Design

This study is quantitative of nature. Quantitative research could be described as a formal, objective, rigorous, systematic process for generating information about the world (Burns & Grove, 2003). A descriptive design was utilized. The descriptive survey design was utilized because it is the best method to describe the incidence, prevalence or amount of the knowledge and utilization of contraception in the student nurses (Brink & Wood, 1998). The researcher used an anonymous, self administered, structured questionnaire to gather data regarding the knowledge and utilization of contraceptives among undergraduate nursing students at UWC. Self administration is the best method when sensitive items are investigated and the assurance of anonymity may provide honest answers (Burns and Grove, 2003).

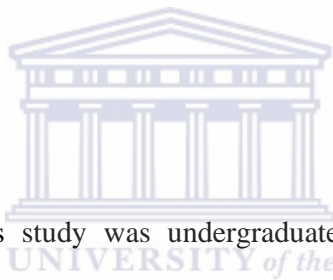


This study can be described as a descriptive survey design of a quantitative nature

3.3 Setting of the study

The researcher undertook the study at the main campus of the University of the Western Cape (UWC). UWC registered their first graduate students 1970 and the campus is located in Bellville, Cape Town, Western Cape, South Africa. Data collection was done in several of the lecture venues that are all located on the main campus.

3.4 Population



The population of this study was undergraduate nursing students who were registered for the undergraduate nursing degree at the University of the Western Cape at the time of data collection. They amounted to a number of 1031 individuals. The age range of the population under study ranged from as young as 17 right up to participants who were older than 35. Their cultural backgrounds are diversely eclectic and can actually be a close representation of the diverse cultures in South Africa. The population also included non- South African individuals. Economically they stem from more affluent families to less wealthy families.

The following table is a representation of the enrolments of 2007 and the 2008 enrolments were comparable to the 2007 data set.

Undergraduate Enrolment: 2007							
Year	Race				Sex		Total
	African	Coloured	Indian	White	Female	Male	
Foundation	28	19	3	0	41	9	50
B. Cur 1	211	90	2	5	249	59	308
B. Cur 2	136	114	6	8	220	44	264
B. Cur 3	111	121	5	11	213	35	248
B. Cur 4	99	87	2	1	166	26	192
Total	585	431	18	28	889	173	1062


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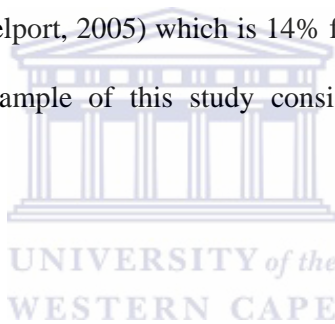
3.5 Sample

A probability sample was used in this study. With the probability sample each individual in the population will have an equal chance to be selected to participate in the study (Burns & Grove, 2003). Noted that the population consisted of 1031 individuals the researcher decided to give every single subject in the population the chance to partake in the sample. With larger samples more accurate predictions and conclusions can be made and this increases the representation of the population (De Vos, Strydom, Fouche, & Delport, 2005).

Data collection was undertaken in lecture venues on campus. The researcher projected that 80% of the population would attend lectures and that 80% of those who attended would voluntarily participate in the study. This approach gave him a projected number of 660 participants. With data collection it happened that the target of 80% attendance was not reached and that not 80% of the attendees participated. This left the researcher with 401 participants in the study.

Refer to section 3.10 for the detailed explanation of the data collection method.

It may seem now that there is under representation in the sample from the projections made, but looking at the recommended sample size of Stoker (De Vos, Strydom, Fouche, & Delpont, 2005) which is 14% for a population of a 1000, it is safe to say that the sample of this study consists of 38.89% of the known population.



Sampling Frame

Population Sample Per Year Level			
Year Level	Population	Projected Sample	Actual Sample
B. Cur 1	308	197	66
B. Cur 2	264	168	94
B. Cur 3	248	158	134
B. Cur 4	192	122	103

3.6 The Pilot Study

A pilot study is frequently defined as a smaller version of a proposed study, and it is conducted to refine the methodology (Burns & Grove, 2003). It can also be viewed as a “dress rehearsal” undertaken to identify possible problems in time (De Vos, Strydom, Fouche, & Delport, 2005).

The pilot study was done on a group of second year nursing students at the Western Cape College of Nursing in Athlone, Cape Town, in October 2007. This group of students were ideal for the pilot study due to the fact that they were in the midpoint of their study, so they could give me a reliable reflection of the level of understanding of the data collection instrument. It also needs to be noted that the socio and demographic profile of these students are analogous to that of the students that formed part of the population of this study. 90 individuals were offered to participate and 76 gave voluntary consent to partake.

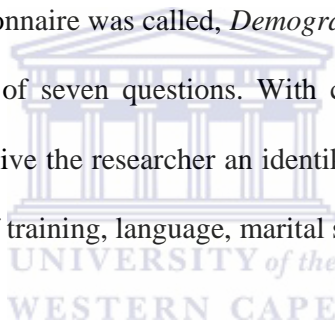
The data collection instrument that was used in this study was developed by the researcher himself, so it was the debut of the questionnaire at the pilot study. With the review of the data it became clear that the tool needed reviewing. The tool was reviewed successfully with the aid of several nurse researchers attached to the School of Nursing at UWC.

The methodology was successful at the pilot study and the researcher decided to go on exactly with the method as planned.

3.7 The Questionnaire

The questionnaire form used consisted of 30 questions that were sub-divided into five sections. Each question had a multiple choice of answers and the respondent had to indicate his or her answer with a mark in the appropriate block provided next to the possible response. It would take a participant about twenty (20) minutes to complete the questionnaire form.

Section A of the questionnaire was called, *Demographic details of the participant*. This section consisted of seven questions. With completion of this part of the questionnaire it could give the researcher an identikit of the respondent. This part focused on age, level of training, language, marital status and place of residence.



Section B had a heading called *Contraceptive knowledge*. These five questions investigated where the participants gained their first knowledge about contraception and if they have done contraception as part of their tertiary study. This part of the questionnaire was in line with the second objective which is to assess their level of knowledge about contraceptive measures. This question was purposefully asked because the researcher noticed that there is no formal module called contraception that the undergraduate nursing student studies at UWC. Contraception is integrated across a couple of modules. This section also enquired if the student feel empowered enough with knowledge about contraception to give health care clients advice on this topic.

Section C took on the form of a short knowledge test with multiple choice answers. The respondent was scored with a percentage mark for his or her answers on the test. The test was constructed in such a way that each question was based on a different contraception method. Yet again this section of the questionnaire focussed on the second objective that was identified.

Section D was called, *Attitude towards falling pregnant*. In this section the Likert scale was used. This was implemented to measure attitude in a quantitative context. With this scale there are a variety of response scales, but the researcher decided to use a forced choice response scale that did not give the respondent the choice to take a neutral standpoint to the statements given (Trochim, 2006).

The fourth objective of this study was to explore attitudes towards pregnancy prevention and falling pregnant among undergraduate nurses. This section of the questionnaire explored objective number four.

The last section of the questionnaire, Section E, was called *Sex and Sexuality*. This nine question part of the tool explored the sexual practices of the respondents and the utilization of contraception in their own lives.

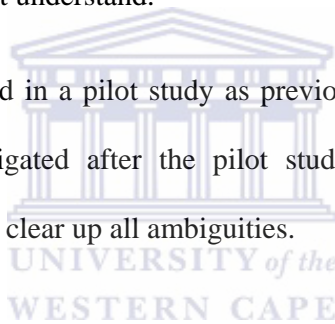
This section was the longest section in the questionnaire and it gave answers to two of the four objectives. That would be objective number one, to determine the contraceptive utilization among student nurses who are sexually active, and

objective number three, to explore other pregnancy prevention measures utilized by undergraduate student nurses.

3.8 Reliability

The data collection instrument used in this study was developed by the researcher. He made sure that the items in the questionnaire were clearly conceptualized and that it was at the level of an undergraduate student. This ensured that participants could give honest answers and would not have the problem to battle with items in the tool that they did not understand.

The tool was also tested in a pilot study as previously discussed in this chapter. Each item was investigated after the pilot study and the questionnaire was appropriately revised to clear up all ambiguities.



3.9 Validity

The researcher ensured face validity by circulating the questionnaire revised after pilot study, to various nurse academics for input.

To enhance the likelihood of participants giving honest answers, he assured anonymity of all participants. The questionnaires were also administered in groups, but participants were seated scattered enough so that they could not see each other's answers.

The sample size consisted of 38.8% of the population and it can be deemed as sufficiently large enough to represent the population.

3.10 Data Collection Method

Data collection was done over a two week period in April 2008. The researcher personally visited scheduled lectures that the students attended. The choice to visit students at their lecture venues was made to increase the participation rate of the participants. It would be convenient for a student to become a participant in this study because s/he did not have to make extra effort to become part of the study.

The researcher made sure that he did not visit the same group of students twice, by carefully working out the schedule according to the time table and liaising with the respective year level coordinators. From the pilot study he noticed that it took about one hour to explain the study to the participants, circulate and gather the completed consent forms and to administer the questionnaire. He requested one hour of class time from each lecture venue he visited over the two week period.

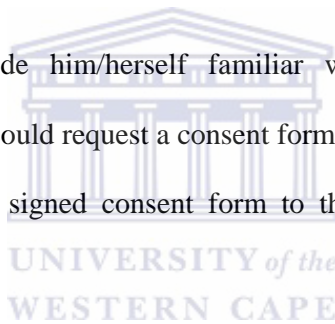
The study was explained to the group of students visited. They had the opportunity to give voluntary consent. Only after voluntary consent was signed could the student participate and complete the questionnaire. He also made sure that the participant was never in possession of a consent form and a questionnaire at the same time to ensure that the participants remained anonymous.

3.11 Informed Consent

All eligible participants that attended the lectures where data collection was done listened to the information session that was given personally by the researcher. He explained what the study was about, what a participant would have to do after he or she gave voluntary consent to the study, and the fact that they could withdraw from the study at any given time.

For further enhancement and to ensure that all the eligible participants were adequately informed on what the study was all about, a printed information sheet was handed to all the eligible participants who attended the lecture.

After the student made him/herself familiar with the information on the information sheet s/he could request a consent form from the researcher. When the participant handed the signed consent form to the researcher, s/he received a questionnaire.



3.12 Anonymity

It was explained to all the participants that they would remain anonymous in this study. The researcher made sure that no participant could be identified. Participants were instructed not to write anything on the form that could link them to the questionnaire such as a name, surname or student number. None of the questionnaires were tagged or numbered and all of the questionnaires looked exactly the same and were even printed on the same printer and was automatically stapled to ensure uniformity.

Questionnaires and consent forms were handled and stored separately.

All of this was done to ensure that each participant remained anonymous.

3.13 Ethical Approval

A proposal was handed in and the researcher gained ethical approval from the UWC ethics committee to conduct the research. The researcher also gained consent from the director of the School of Nursing at UWC to use undergraduate nursing students as participants to a research study.



3.14 Technical Problems with Data Collection

The greater part of the data collection process ran smoothly. It needs to be noted however that the researcher projected that there would be a turnout of 80% of students at the lectures in his projections. This was not the case and it definitely had an impact on the sample.

The researcher never anticipated that peer pressure would play a role, due to the fact that the population consisted of adults. With data collection the researcher could observe that individuals would influence each other with their choice to either participate in the study or not.

Even with this small hitch, the researcher still managed to draw a sample 38% of the population and it still adequately represented the population that was under study.

3.15 Data Analysis

Data was analysed with the aid of the Base SAS Software package. The UNIVARIATE Procedure was used. This is an ideal test to generate descriptive statistics. Findings are presented in percentages.

3.15 Conclusion

In this chapter the reader was introduced to the methodology implemented in this study. The questionnaire used to collect data was explained and the connection between the different sections of the tool and the objectives of the study was clearly explained.

Attention was given to ethical considerations and the technical barriers that the researcher had to overcome were documented.

In the following chapter the reader will be introduced to the findings. The findings will be presented in table form and discussion will follow.

Chapter 4

Presentation of Findings

4.1 Introduction

This chapter presents the quantitative data that was collected and analysed in this study. This study had four (4) objectives. The researcher determined the contraceptive utilization among student nurses who are sexually active, assessed their knowledge about contraceptive measures and also included alternative measures to contraception. He lastly also measured their attitudes towards pregnancy prevention and falling pregnant during their undergraduate study.

The population under study consisted of 1031 undergraduate nursing students that were registered students at the time of data collection. Every student had the opportunity to take part in the study. 401 gave consent to partake in the study and successfully completed the self administered questionnaire. The sample consisted of 38% of the population.

Graphical illustrations will be utilized to present statistics. Through discussions, the presented data will be analysed. The different categories for analysis as informed by the self administered questionnaire that was used to collect data are as follows:

- Demographic picture of participants
- Contraceptive utilization
- Level of knowledge about contraception
- Alternative pregnancy prevention measures utilized
- Attitudes towards pregnancy prevention and falling pregnant



4.2 Demographic Picture of Participants

4.2.1 Age

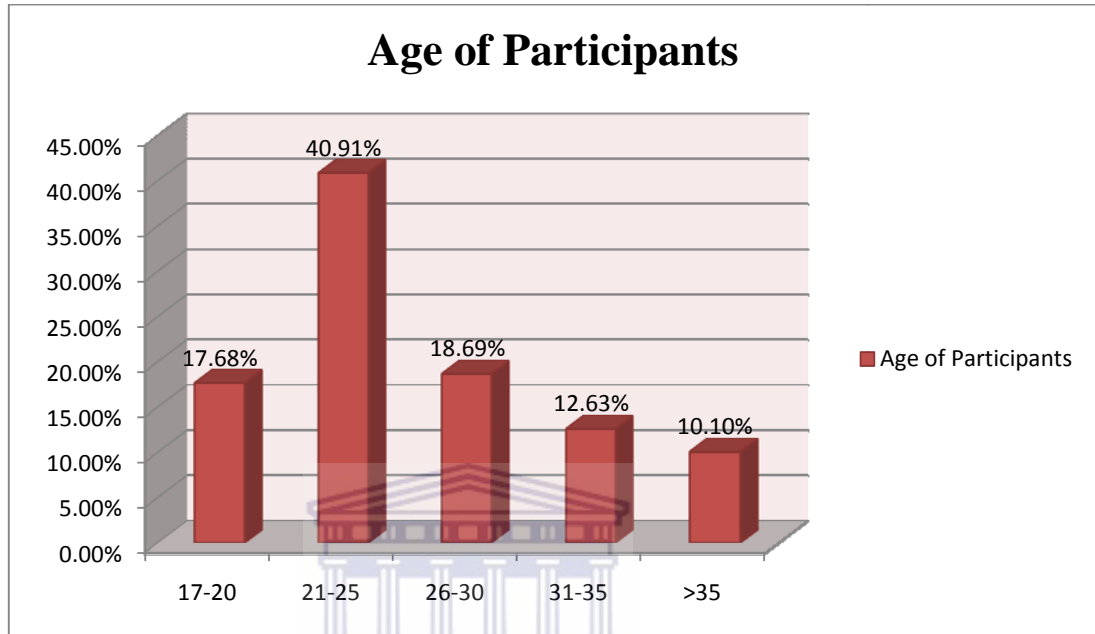
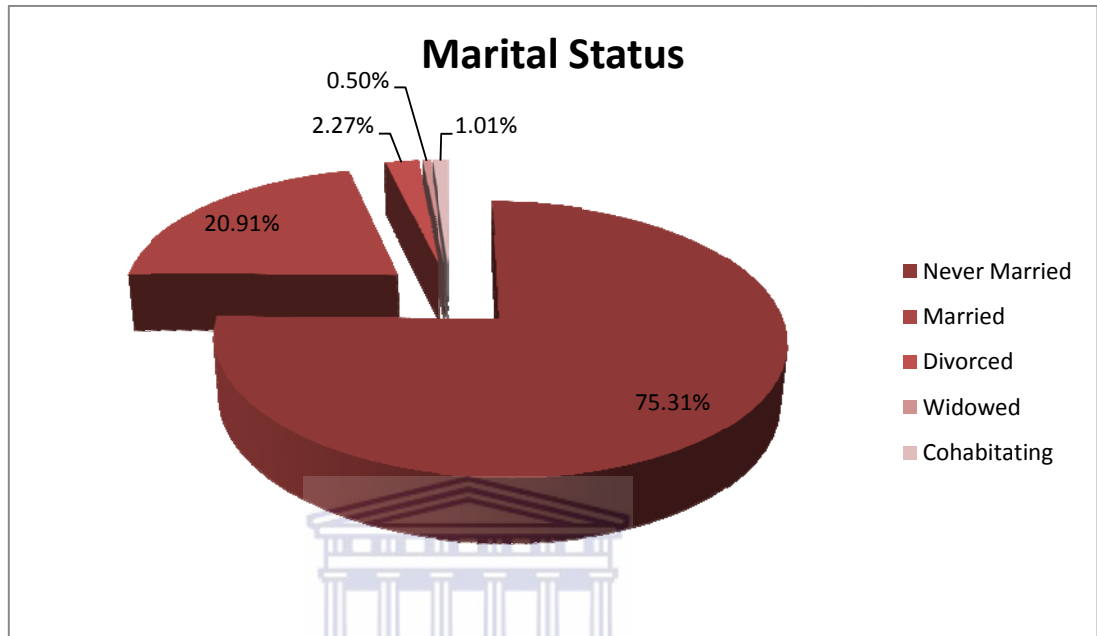


Figure 1: Age of Participants UNIVERSITY of the WESTERN CAPE

4.2.2 Training Level

The participants to the study had an age range from 17 years up to greater than 35 years and they were evenly spread throughout the different training levels. It is also noticed that the bulk of participants were in the age range of 21-25 years namely 40.91% (n=162) (Figure 1). According to the South African Nursing Council (SANC), the mean age of commencement of nursing studies is 26 years (Sanc-Age Statistics 2006). This could be suggestive that there is a trend that the student nurse is indeed becoming younger.

4.2.3 Gender and Marital status



It was also noted that 86.43% (n=344) of the respondents were female and 13.57% of them were males. Most of the participants 75.31% (n=299) have never been married at all and almost half of the respondents, 49.12% (n=195), are still living with their families. ~~Your choice of colours isn't good in this case. Use completely different colours for your pie chart~~

4.2.4 Number of Children

Forty-one-point-three percent, 41.3% (n=163) of the participants to this study have at least one child already (Figure 2). This figure points to the direction that the average nursing student will most likely be unmarried, and already have at least one child when she/he enters the undergraduate degree program to pursue her studies.

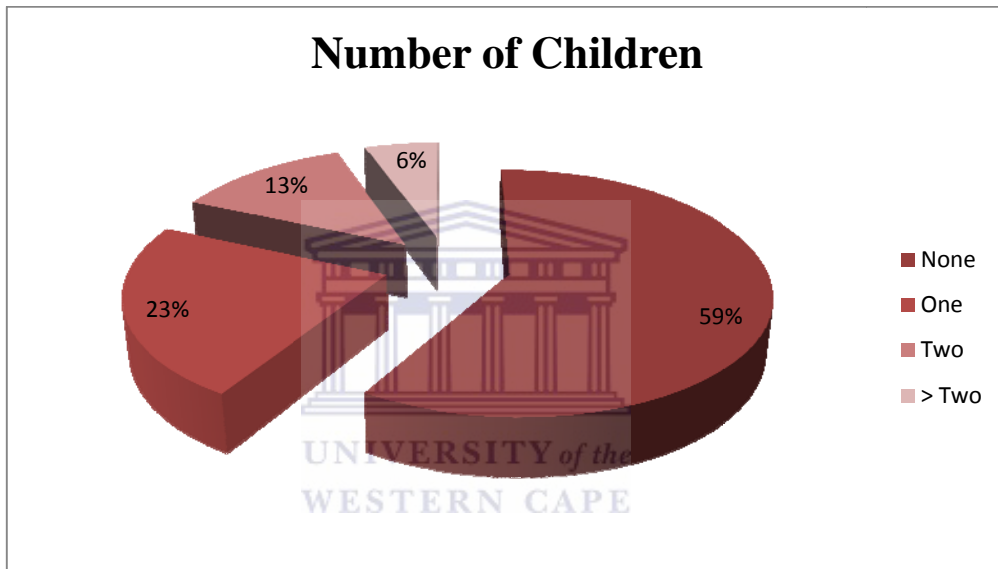


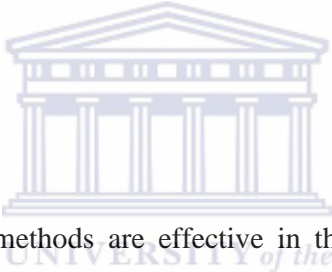
Figure 2 Number of Children You must describe the figure not just to label Figure 2 and leave it like that!!

4.3 Contraceptive Utilization

4.3.1 Sexual Debut

As previously shown the bulk of respondents were in the age category of 21-25 years. Sixty-eight-percent, 68% (n=162) of all respondents admitted to have had their penetrative sexual debut before the age of 21 years. This clearly shows that the nursing students are indeed sexually active and have already started to engage in sexual activity even before they enter the program.

4.3.2 Condom Use



Modern contraceptive methods are effective in the prevention of pregnancy if utilized correctly but it is not effective in the protection of HIV and other sexually transmitted infections (Adeokun, et al., 2002). Using a condom in conjunction with another contraceptive method will protect the individual against pregnancy and sexually transmitted infections including HIV. This is referred to as dual protection (Adeokun, et al., 2002). The assumption is made that individuals will opt for this option due to the fact that it will provide dual protection and the assumption is taken further that the health care professional and the undergraduate nursing student would find this safe option to contraception even more attractive due to the fact that they are more informed than the general public.

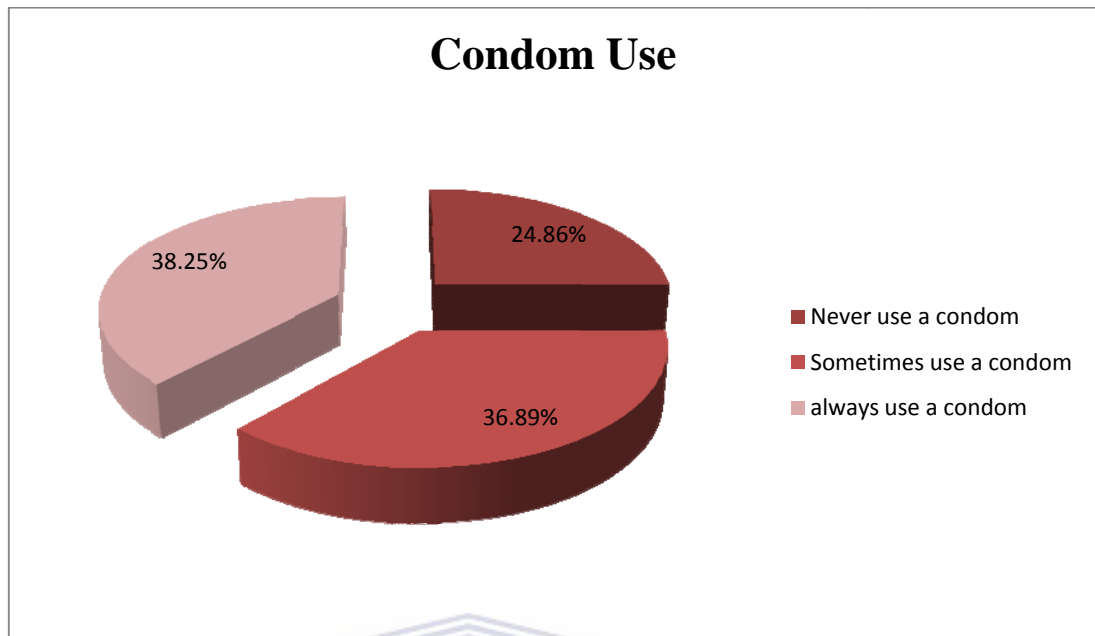


Figure 3: Condom Use

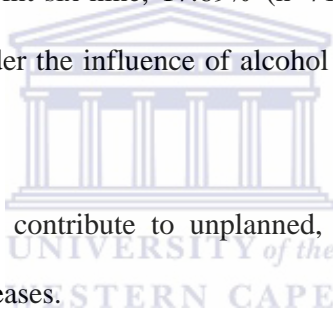
Only 38.25% (n=140) of the respondents claim to always using a condom when sexually active. 36.89% of the respondents indicated that they sometimes use a condom and 24.86% of the participants say that they never use a condom when they engage in sexual activity. It is taken that 38.25% of participants consistently uses the condom (Figure 3).

These rates of condom use strongly correlates with a Croatian study that had a participant profile of the same age group as this study. They ascertained that one fifth (20%) of their respondents consistently used condoms (Stulhofer, Graham, Bozicevic, Kufrin, & Ajdukovic, 2007).

There is a trend to risky sexual behaviour among young adults and especially university students. In a study conducted among a group of university students in New Zealand 25% of the respondents reported to have engaged in risky sexual behaviour and the direct cause to the behaviour could be blamed on alcohol use (Cashell-Smith, Connor, & Kypri, 2007). A comparable study in America demonstrated that 35% of respondents who were also registered university students had two or more sexual partners concurrently (Kim, De La Rosa, Trepka, & Kelley, 2007).

In this study 9.39% (n=37) of respondents admitted to having two or more sexual partners. Seventeen-point-six-nine, 17.69% (n=71) of the respondents said that they are sometimes under the influence of alcohol or drugs when they engage in sex.

Risky behaviour could contribute to unplanned, unwanted pregnancy and the spread of infectious diseases.



4.3.3 Method Utilized

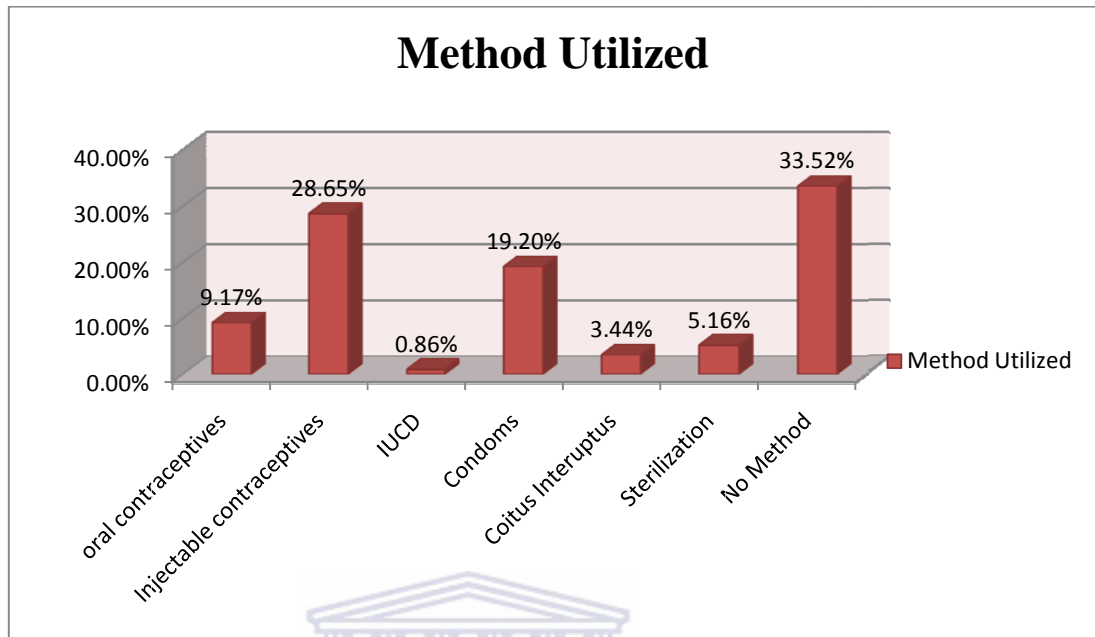


Figure 4: Method Utilized

The most popular hormonal method used to prevent pregnancy is one of the injectable contraceptives. Twenty-eight-point-six-five, 28.65% (n=100) of the respondents used an injectable method while only 9.17% (n=32) used oral contraceptives to prevent pregnancy.

These results differ significantly from a study done in Nigeria among undergraduate students. In order of popularity they utilized condoms, the calendar method, oral contraceptives, coitus interruptus, injectable methods, emergency contraception and lastly the intra-uterine contraceptive device (IUCD) (Orji, Adegbenro, & Olalekan, 2005). In this study the order of method utilized for pregnancy prevention in order of popularity was the injectable contraceptives 28.65%, condoms 19.20%, oral contraceptives 9.17%, sterilization 5.16%, coitus interruptus 3.44% and the IUCD 0.86%.

From observation as a practicing nurse, the injectable method is easier to manage than the oral method. The student will only need an injection every eight or twelve weeks on an injectable method, where as the student would have to drink a tablet daily if she opted for the oral contraceptive (Figure 4).

Only 0.86% (n=3) of the participants utilize the Intra Uterine Contraceptive Device (IUCD) as a contraceptive method. 5.6% of the respondent indicated that they have been sterilized. Both sterilization and the IUCD are methods that are usually used by people who have completed their families and they would most probably fall into the age category of >35 years of age.

It is a concern that coitus interruptus is utilized by even a small percentage 3.44% of the respondents. This method is one of the least effective methods of contraception, 20 pregnancies per 100 women, in comparison to injectable contraceptives, 0.3 pregnancies per 100 women (Hatcher, Rinehart, Blackburn, Geller, & Sheldon, 1997).

It was noted that when it comes to the utilization of a particular method implemented by the respondents, 33.52% (n=117) of them are not using any method at all to prevent pregnancy.

4.4 Level of Knowledge about Contraception

4.4.1 Contraceptive Knowledge Test

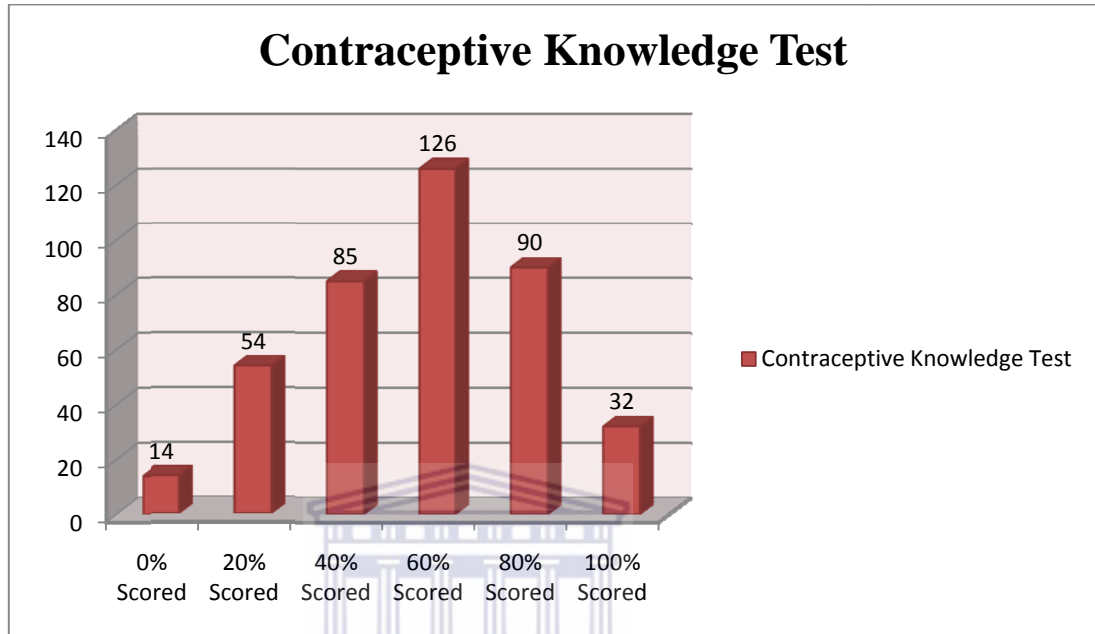


Figure 5: Contraceptive Knowledge Test

At UWC contraception is not taught as a module in particular to the undergraduate nursing students. The topic of contraception does however receive great coverage and attention in especially the two major modules that are presented in their third year of study namely Midwifery and Community health science (University of the Western Cape, 2008). It needs to be noted that the topic of contraception also gets some coverage in various other modules throughout the undergraduate curriculum.

Sixty-one-point-seven-three percent (61.73%) (n=242) of the participants indicated that they have done contraception as part of their coursework and 38% indicated that they have not done it. A great portion of the respondents 79.9% (n=315) said that they have up to date knowledge of the different contraception methods available and an even greater portion 81.66% (n=325) stated that they feel comfortable to advise clients on contraception options.

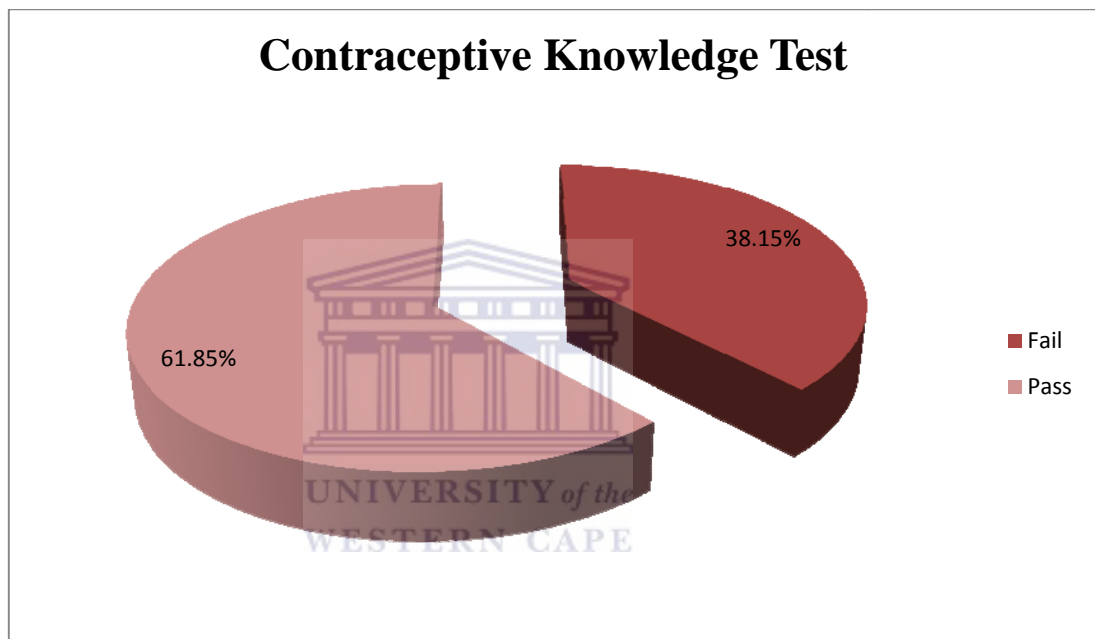


Figure 6 Contraceptive Knowledge Test

The respondents had to complete a short quiz on contraception. The quiz only consisted of five key questions and each question tested their knowledge on a different aspect of contraception.

The first question that was posed to the participants was how oral contraception works. The second one enquired about the side effects of injectable contraceptives. In the third question the participant had to state how long the copper activated Intra Uterine Contraceptive Device (IUCD) could be reliably effective. The participants were asked to comment on statements made about

condoms and condom use and the final question in the knowledge test asked if a woman needs consent from her husband should she want to have a tubal ligation.

In the results 38% (n=153) of the respondents scored 40% or less in the quiz (Figure 6).

There are clear conflicts in the results gathered. Respondents would indicate that they feel that they have adequate knowledge on the area of contraception and that they even feel competent and confident enough to educate and consult with health clients about their contraception choices, but when they get tested on their knowledge it becomes clear that these respondents are indeed not equipped well enough to give clients advice on their contraceptive options.

4.5 Alternative Pregnancy Prevention Measures Utilized

Coitus interruptus could be regarded as an alternative pregnancy prevention measure due to the fact that it does not form part of the main stream contraceptive counselling (Hatcher, Rinehart, Blackburn, Geller, & Sheldon, 1997). The issue of coitus interruptus was already covered in section 4.3.4 *Method Utilized*. The researcher looked at the utilization of emergency contraception after it became clear in the literature study that this method is underutilized and that there is a very low level of knowledge when it comes to using emergency contraception after main stream methods have failed (Celik, Ekerbicer, Ergun, & Tekin, 2007) (Roberts, Moodley, & Esterhuizen, 2004). Termination of pregnancy as contraceptive method was also explored.

4.5.1 Emergency Contraception

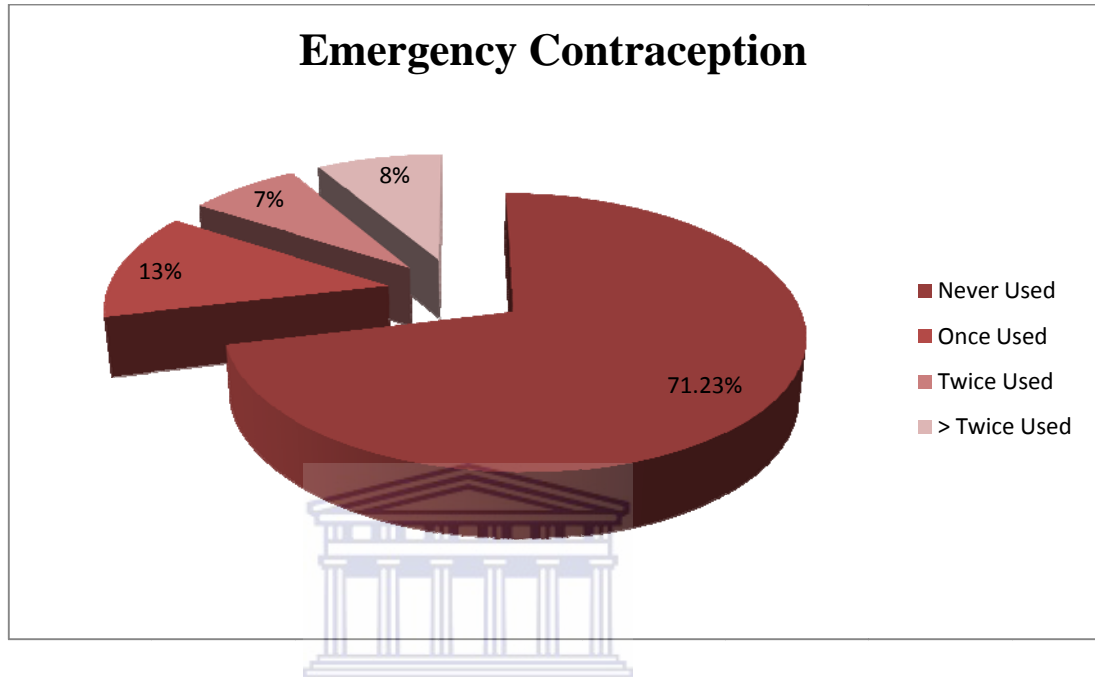


Figure 7: Emergency Contraception UNIVERSITY of the WESTERN CAPE

A great portion of respondents 71.23% (n=260) have never used emergency contraception (Figure 7). This statistic could be interpreted in two ways. On the one hand it could be said that the respondents do not have to make use of emergency contraception due to the fact that they already have adequate protection against pregnancy or it could indicate that the respondents do not have enough knowledge about emergency contraception to be able to utilize the method.

Due to the inconsistent use of contraception among these respondents it would be assumed that there would be a need for them to utilize emergency contraception. They do however not make use of this method which is an indication that they do

not have a high enough level of knowledge of this method should their primary method of pregnancy prevention fail.

4.5.3 Termination of Pregnancy

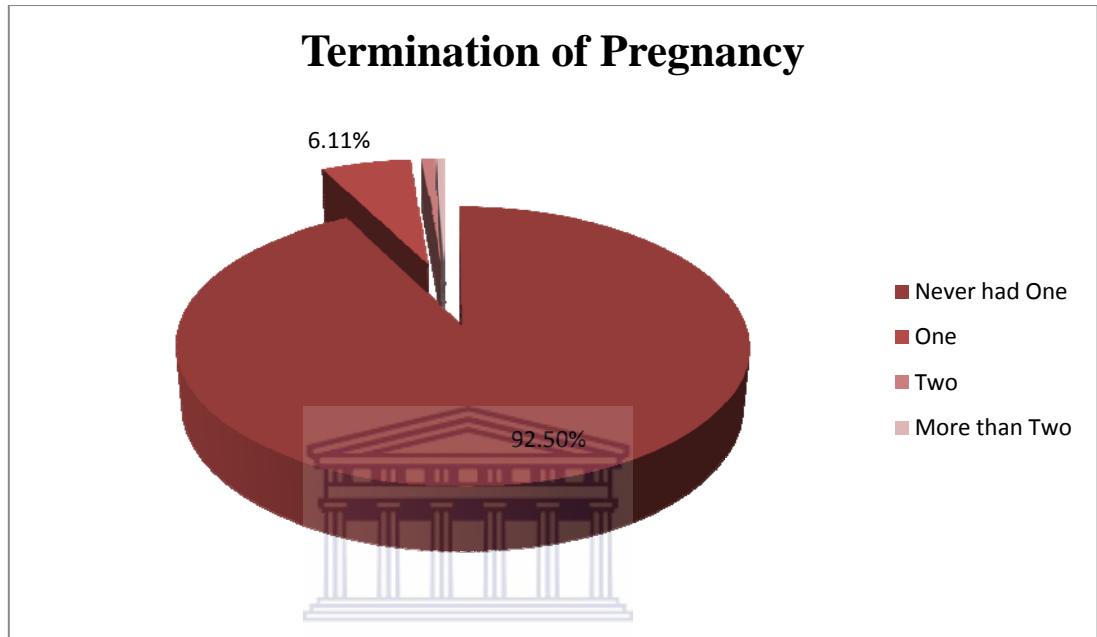


Figure 8: Termination of Pregnancy

Taking a look at the utilization of TOP services, 6.11% (n=22) of the respondents indicated that they have had a termination of pregnancy (Figure 8). This is a fair indication that TOP service is in fact available to the respondents and is used if needed. It is unknown whether respondents use TOP as a family planning method.

4.6 Attitudes towards Pregnancy Prevention and Falling Pregnant

4.6.1 Pregnancy causes struggle with studies

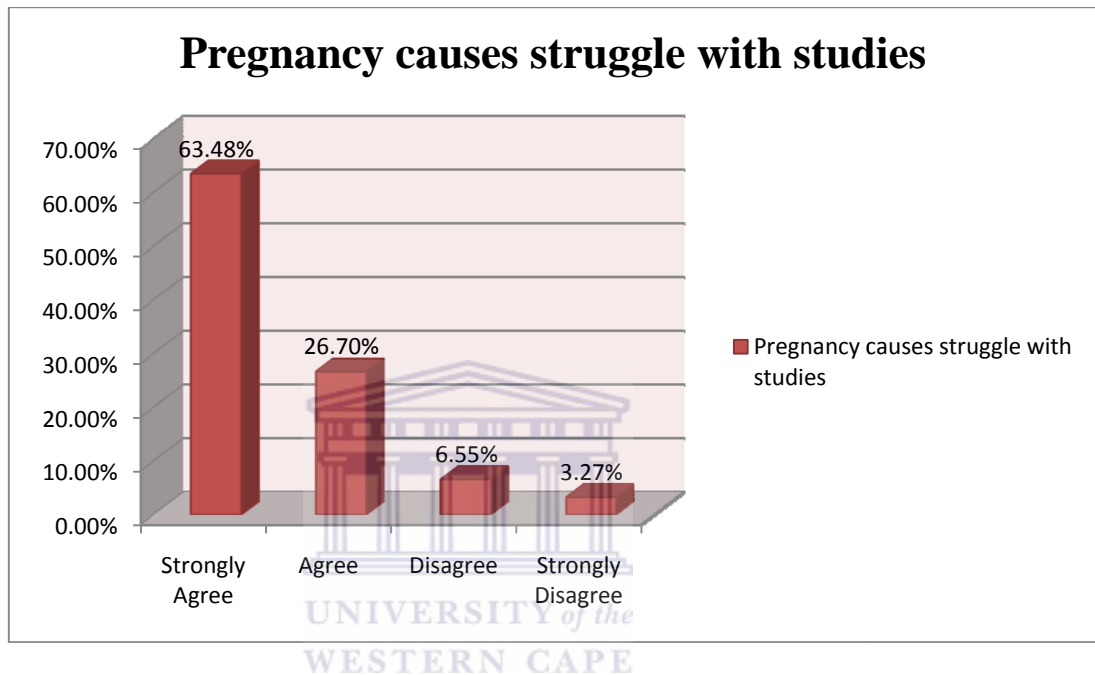


Figure 9: Pregnancy causes struggle with studies

A vast majority of the respondents 63.48% (n=252) strongly agreed that a pregnancy will let them struggle with their studies (Figure 9). It was also noted that 76.07% (n=302) strongly agreed that all students should protect themselves from falling pregnant while they are busy with their studies (Figure 10). This is quite surprising that the respondents believe that pregnancy will have a negative impact on their undergraduate studies and that all students should have protected sex to prevent pregnancy, but their own behaviour shows the contrary in the fact that they do not consistently use a safe pregnancy prevention measure. It seems that students are aware of the dangers of engaging in unprotected sexual behaviour, but they have the false belief that it cannot happen to them.

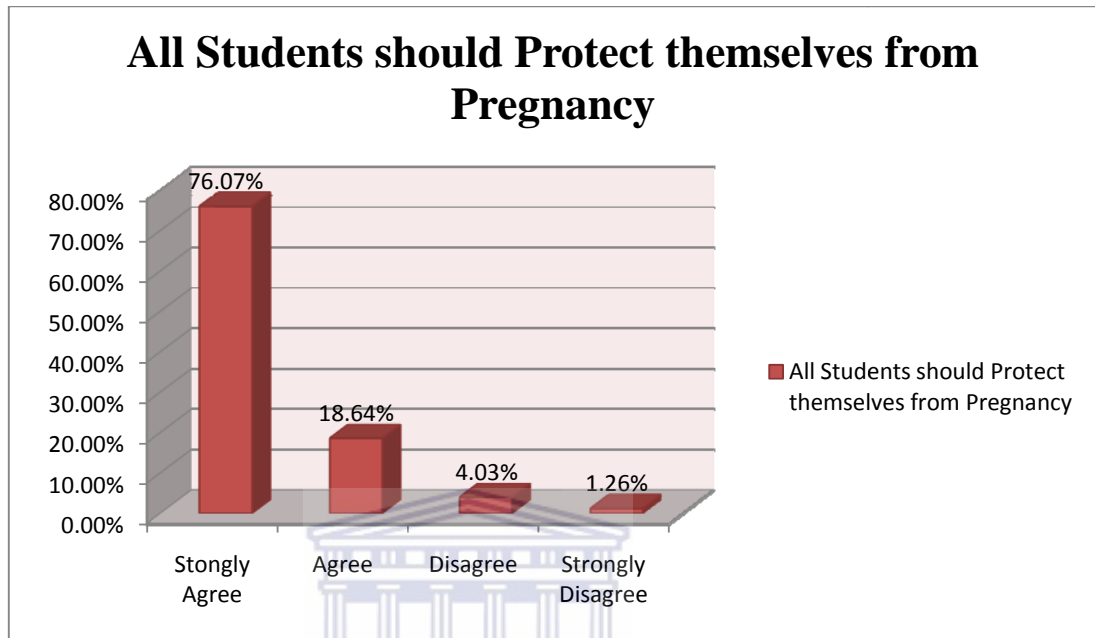


Figure 10: All students should Protect themselves from Pregnancy

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4.7 Conclusion

This chapter graphically displayed the data collected in this study. Analysis developed through discussion.

In the next chapter Final conclusions will be made from the analysed data and recommendations for further research will be made.

In summary; describe your figures and also use distinguishing colours for you pie charts!!

Chapter 5

Summary of Findings, Conclusion and Recommendations

5.1 Introduction

This is the last chapter of this thesis. In this part final conclusions of the analysed data will be discussed and recommendations for further research will be made.



5.2 The Hypothesis

In the hypothesis the researcher assumed that a low knowledge level on contraception among undergraduate student nurses impact negatively on the utilization of contraception.

Results from this study points to the direction that undergraduate student nurses believe that they have an up to date knowledge of contraception and pregnancy prevention, but on the contrary their level of knowledge on the subject area is quite low. 38% of the respondents scored 40% or less in the basic contraception quiz.

Nursing students have a positive attitude to the utilization of contraception and the prevention of pregnancy while they are doing their undergraduate studies. Most of the respondents either agreed or strongly agreed to the fact that a pregnancy would have a negative impact on their undergraduate studies and all students should protect themselves from pregnancy.

From the findings it became clear that although students believe these statements, they themselves inconsistently make use of contraception and pregnancy prevention measures.



This research proved that the level of knowledge of contraception amongst undergraduate student nurses is indeed inadequate and that this low level of knowledge on the subject area leads to incorrect and inconsistent and non use of contraception in their own lives.

This study had four objectives. The researcher set out to determine contraceptive utilization among student nurses who are sexually active and to explore other pregnancy prevention measures utilized by them. He assessed their level of knowledge about contraceptive measures and their attitudes toward pregnancy prevention and falling pregnant while they are doing their undergraduate studies.

All of these objectives were met. The results demonstrated the contraceptive utilization among the participants, the level of knowledge about contraception was assessed and their attitudes towards pregnancy prevention were explored.

5.3 Limitations

HIV and AIDS, is a reality that coincides with sexual activity and pregnancy. It was not investigated with the utilization and knowledge of contraception due to the fact that this research is done as part of a structured masters program and time is a limitation. The study is limited to undergraduate nursing students at the Faculty of Community and Health Science at UWC. It would be difficult to generalize the findings and make it applicable to post graduate students and other students in the faculty. Further study would be needed for this purpose; however, this study can easily be generalized to other undergraduate nursing students with comparable socio-economic circumstances.

5.4 Recommendations for Practice

5.4.1 Contraception as a module in the curriculum

Contraception methods should become a module/course in the undergraduate nursing curriculum that needs to be presented from the first year of study right up to the fourth year of study. Student nurses should also be appropriately placed in clinical settings that would give them enough exposure to this subject area from an early time in their study career. This measure will make the student nurse more conscious about the subject area and will ensure that they can become competent and confident professional nurses that can educate, advise, counsel and manage the contraceptive needs of the community where they will ultimately practice.

These modules/courses on contraception should follow a holistic approach to the subject area of contraception. It should not only cover the theory and practice of contraception practice. It should ideally cover theory, practice and a great emphasis should be placed on value clarification of the student and attitudes towards the utilization of contraception.

5.4.2 Providing reproductive health and support to student nurses

Reproductive health support and counselling services should be made more available and accessible to the undergraduate student nurse.

The needs of the student nurse differ from the needs of an ordinary undergraduate student. The student nurse has to deal with a full time academic load and she needs to complete a great amount of clinical practica in order for her to successfully complete her degree and gain registration at the SANC. It could thus potentially be difficult for them to access these services after hours.

It is recommended that a university initiated, small, after hours, conveniently situated reproductive health service should be made available to undergraduate nursing students to make the service more accessible to them. This initiative will hopefully positively influence their utilization of contraception.

5.4.3 Incorporating pregnancy prevention in HIV prevention programs

HIV prevention and support has become a national health priority. A great emphasis is placed on the prevention of HIV by having safer sex through utilization of condoms. These awareness campaigns may be of great value to prevent the spread of HIV, but it mostly does not cover pregnancy prevention.

In the light of these active campaigns that are up and running it is advised that the students should be motivated to be more involved in these types of campaigns and that they should try and incorporate contraception and pregnancy prevention strategies. It is taken that when the student is actively involved in campaigns that can lead to capacity building, it will positively affect their own behaviour.

5.5 Implications for Research

5.5.1 Effectiveness of pregnancy prevention programs targeted at youth

The data collected pointed into the direction that there is a great possibility that the student that enters the undergraduate nursing program would already have a child. It was not the purpose of this study to ascertain if these children were planned or unplanned.

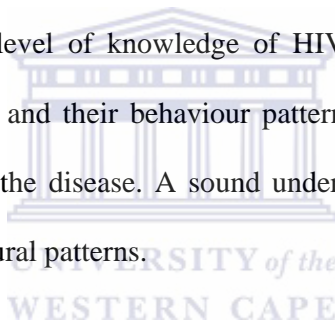


The pregnancy prevention programmes that are targeted at teenagers at high school level should be revisited to enquire if they are indeed effective in preventing unplanned and unwanted pregnancy in teenagers and youth.

5.5.2 Knowledge of HIV amongst undergraduate nurses and risk behaviour patterns

The condom is the only form of protection against HIV in the sexually active individual. It became clear in this study that only a small percentage of respondents utilize condoms as part of their pregnancy prevention strategy. HIV is a global health concern and undergraduate students are also affected.

It is advised that the level of knowledge of HIV needs to be tested amongst undergraduate students and their behaviour patterns explored according to their level of knowledge of the disease. A sound understanding of the disease might influence their behavioural patterns.



5.6 Conclusion

This was the final chapter of this study. The hypothesis and the objectives were revisited. Final summaries were made and recommendations to both practice and research were suggested.

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Addendum A



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Questionnaire Form

Section A

Demographic details of the participant

1. How old Are you?

<input type="checkbox"/>	17-20
<input type="checkbox"/>	21-25
<input type="checkbox"/>	26-30
<input type="checkbox"/>	31-35
<input type="checkbox"/>	35 and older

2. Gender

<input type="checkbox"/>	Male
<input type="checkbox"/>	Female

3. Ethnic Origins

<input type="checkbox"/>	White
<input type="checkbox"/>	Coloured
<input type="checkbox"/>	Black
<input type="checkbox"/>	Indian

4. In which year of training are you?



<input type="checkbox"/>	1st
<input type="checkbox"/>	2nd
<input type="checkbox"/>	3rd
<input type="checkbox"/>	4th

5. Where do you reside?

<input type="checkbox"/>	University res.
<input type="checkbox"/>	Home
<input type="checkbox"/>	Private

6. Marital Status

<input type="checkbox"/>	Never Married
<input type="checkbox"/>	Married
<input type="checkbox"/>	Divorced
<input type="checkbox"/>	Widowed
<input type="checkbox"/>	Cohabiting

7. How many children do you have?

<input type="checkbox"/>	None
<input type="checkbox"/>	One
<input type="checkbox"/>	Two
<input type="checkbox"/>	More than two

Section B

Contraceptive Knowledge. Completed by both males and females

1. From whom did you get your first sex education?

<input type="checkbox"/>	Parents
<input type="checkbox"/>	School Teacher
<input type="checkbox"/>	Cousins
<input type="checkbox"/>	Friends
<input type="checkbox"/>	Mass media
<input type="checkbox"/>	Tertiary studies

2. Have you studied contraception as part of your coursework?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No

3. Do you have up to date knowledge of the different contraception methods?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No

4. Do you know the side effects of the different contraception methods?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No

5. Do you feel comfortable to advise clients on contraception options?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No



Section C

Choose the answer that is the most correct.

1. How does oral contraceptive work?

- It contains hormones that kills sperm cells
- It prevents ovulation from taking place
- It interrupts a pregnancy, should it occur

0	1
---	---

2. Which of the following is a side effect of injectable hormonal contraception?

- Changes in the menstrual cycle
- Infertility
- Non malignant lesions on the cervix

0	1
---	---

3. For how long can the Tcu-380A be kept in place and still be effective?

- 1 year
- 5 years
- 10 years

0	1
---	---

4. Which one of the following statements is correct?

- | | |
|--------------------------|---|
| <input type="checkbox"/> | Condoms can be used with an oil based lubricant |
| <input type="checkbox"/> | Condoms can be used for anal sex |
| <input type="checkbox"/> | A male and a female condom can be used together for added protection. |

0	1
---	---

5. A Woman should get consent from her husband before she can have a sterilization.



TRUE

FALSE

0	1
---	---

Section D

Attitude towards falling pregnant. Completed by both males and females

1. I would struggle with my studies if my partner or I should fall pregnant.

<input type="checkbox"/>	Strongly agree
<input type="checkbox"/>	Agree
<input type="checkbox"/>	Disagree
<input type="checkbox"/>	Strongly disagree

2. Every student should have protected sex to prevent pregnancy during their course.

<input type="checkbox"/>	Strongly agree
<input type="checkbox"/>	Agree
<input type="checkbox"/>	Disagree
<input type="checkbox"/>	Strongly disagree

3. Pregnancy is a natural part of adulthood and can be easily juggled between studies and personal responsibilities.

<input type="checkbox"/>	Strongly agree
<input type="checkbox"/>	Agree
<input type="checkbox"/>	Disagree
<input type="checkbox"/>	Strongly disagree

4. Government financial support is sufficient should I fall pregnant during my study period.

<input type="checkbox"/>	Strongly agree
<input type="checkbox"/>	Agree
<input type="checkbox"/>	Disagree
<input type="checkbox"/>	Strongly disagree

Section E

Sex and Sexuality

1. What is your sexual orientation?

<input type="checkbox"/>	Heterosexual
<input type="checkbox"/>	Homosexual
<input type="checkbox"/>	Bi-Sexual

2. How old were you when you had sexual intercourse for the first time?

<input type="checkbox"/>	Never had sex
<input type="checkbox"/>	younger than 13
<input type="checkbox"/>	14 years
<input type="checkbox"/>	15-17 years
<input type="checkbox"/>	17-20 years
<input type="checkbox"/>	21-25years
<input type="checkbox"/>	older than 25 years

3. How many sex partners do you have at the current moment?

<input type="checkbox"/>	none
<input type="checkbox"/>	One
<input type="checkbox"/>	Two
<input type="checkbox"/>	More than two

4. Do you make use of condoms when you have sexual intercourse?

<input type="checkbox"/>	Never
<input type="checkbox"/>	Sometimes
<input type="checkbox"/>	Always

6. Do you ever think that a pregnancy can result when you are sexually active?

<input type="checkbox"/>	Always
<input type="checkbox"/>	Never
<input type="checkbox"/>	Sometimes

7. Are you under the influence of alcohol or drugs when you are sexually active

<input type="checkbox"/>	Always
<input type="checkbox"/>	Never
<input type="checkbox"/>	Sometimes

5. Do you and your partner make use of a family planning method?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No

6. What family planning method are you using at the moment?

<input type="checkbox"/>	Oral Contraceptives
<input type="checkbox"/>	Injectable Contraceptives
<input type="checkbox"/>	IUCD
<input type="checkbox"/>	Condoms
<input type="checkbox"/>	Withdrawal
<input type="checkbox"/>	Sterilization
<input type="checkbox"/>	None

7. How many times have you and your partner made use of emergency Contraception?

<input type="checkbox"/>	Never
<input type="checkbox"/>	Once
<input type="checkbox"/>	Twice
<input type="checkbox"/>	More than two times

8. Do you consistently use a family planning method?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No
<input type="checkbox"/>	Only when I have a partner

9. How many termination of pregnancies have you or your partner had?

<input type="checkbox"/>	None
<input type="checkbox"/>	One
<input type="checkbox"/>	Two
<input type="checkbox"/>	More than two

Addendum B





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E-mail: dnewman@uwc.ac.za

CONSENT FORM

Title of Research Project: The knowledge and utilization of contraception and the attitudes towards pregnancy prevention among nursing students at the University of the Western Cape.

This study has been described to me in language that I understand and I freely and voluntarily agree to participate. My questions about the study have been answered. I understand that my identity will not be disclosed and that I may withdraw from the study without giving a reason at any time and this will not negatively affect me in any way.

Participant's name.....

Participant's signature.....

Study coordinator's signature.....

Date.....

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact the study coordinator:

Douglas Newman

University of the Western Cape

Private Bag X17, Belville 7535

Telephone: (021)959-2446

Cell: 082 306 2005

Email: dnewman@uwc.ac.za

Addendum C





UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959 2446, Fax: 27 21-959

E-mail: dnewman@uwc.ac.za

INFORMATION SHEET

Project Title: The knowledge and utilization of contraception and the attitudes towards pregnancy prevention among nursing students at the University of the Western Cape.

What is this study about?

This is a research project being conducted by Douglas Newman at the University of the Western Cape. We are inviting you to participate in this research project because you form part of the population under study. The purpose of this research project is to determine the level knowledge and utilization of contraception and the attitudes towards pregnancy prevention among nursing students at the University of the Western Cape.

What will I be asked to do if I agree to participate?

You will be asked to complete the consent form provided. You will then have to complete the questionnaire. The whole process will not take longer than 20 minutes.

Would my participation in this study be kept confidential?

I will do my best to keep your personal information confidential. To help protect your confidentiality, you will not write your name or any details on the questionnaire form that may identify you. The questionnaires are not numbered or tagged. The consent forms and questionnaires will be handled separately. The researcher will not know who completed the questionnaire.

What are the risks of this research?

There are no known risks associated with participating in this research project.

What are the benefits of this research?

This research is not designed to help you personally, but the results may help the investigator learn more about the knowledge and utilization of contraception and the attitudes towards pregnancy prevention among nursing students at the University of the Western Cape.

We hope that, in the future, other people, especially youth in Higher Education, might benefit from this study through improved understanding of the knowledge and utilization of contraception and the attitudes towards pregnancy prevention.

Do I have to be in this research and may I stop participating at any time?

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify. The research is not part of the requirement of your studies, and there are no marks will be allocated for this study.

What if I have questions?

This research is being conducted by Douglas Newman, School of Nursing at the University of the Western Cape. If you have any questions about the research study itself, please contact Douglas Newman at: 082 306 2005 (cell) or dnewman@uwc.ac.za (e-mail)

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Head of Department: School of Nursing

OR

Dean of the Faculty of Community and Health Sciences:

University of the Western Cape

Private Bag X17

Bellville 7535

This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee.

