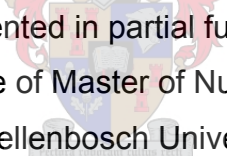


**Accessibility and uptake of reproductive health education during earlier  
youth according to 18 and 19 year old college students in the Cape  
Town Metropolitan area**

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Research assignment presented in partial fulfillment of the requirements  
for the Degree of Master of Nursing Science  
at Stellenbosch University

The image shows the crest of Stellenbosch University, which is a shield with a red and white design, topped with a crown and surrounded by a red and white wreath. The crest is positioned behind the text of the research assignment.

Supervisor: Dr F Marais

November 2010

## DECLARATION

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## Abstract

Reproductive health is the right of every person. The new Children's Act (Act 38 of 2005) gives to children 12 years and older rights to reproductive health, which includes contraceptive access as well as information on sexuality and reproduction. They have the right to HIV/AIDS testing and treatment with only their own consent. The aim of the study was to investigate the personal and contextual factors which influence the accessibility and uptake of reproductive health education during early youth (13 to 18 years). The study also aimed to identify contextually appropriate recommendations toward improved reproductive health provision for these youths.

A descriptive, non-experimental, research design was employed with a primarily quantitative approach. A sample of 270 participants, constituting 20% of the study population (N=1373) was randomly selected from Northlink FET Colleges, Cape Town. A self-completion structured questionnaire was used to collect the data. Ethical approval was obtained from the Health Research Ethics Committee of the Faculty of Health Sciences, Stellenbosch University. Permission to conduct the research was obtained from the management of Northlink FET College.

A group of 30 participants, who met the inclusion criteria, constituting 11% of the sample, participated in a pilot study. Reliability and validity were assured by means of a pilot study and the use of experts in the field, nursing research and statistics. Data was collected personally by the Principal Investigator.

The data analysis was primarily descriptive in nature and presented in frequency tables, proportions and measures of relationships, using where indicated Chi-square ( $\chi^2$ ) and Mann-Whitney U tests. A thematic approach was used to analyze the qualitative data yielded from the open-ended question. Subsequently, in order to strengthen the investigation, the qualitative data, within the identified themes, was quantified based on a validated analytical approach.

The results show that 74.1% (n=195) of participants were sexually experienced by the time of the study. Of the participants who reported having already had sexual intercourse, 60.5% (n=115) indicated having made their sexual debut by the age of 16. A third of participants (33.2%,n=77) received their first reproductive health education by age 13. Only half of the participants (50.4%,n=116) indicated that the reproductive health education they received always influenced them to make safer

sex choices. Of the participants, 21.9% (n=59) stated that they felt that they were in some way hindered in accessing contraceptives during age 13 to 18 years.

The vast majority of the participants (94.4%, n=255) indicated that they would prefer reproductive health education to be provided by a professional healthcare provider at a clinic (61.5%, n=166) or by a nurse at school (33%; n=89). Increased reproductive health education within the schooling systems was requested by 52 (19.3%) participants, with more than 30% (n=84) indicating their home as the preferred source of such education.

Several recommendations, grounded in the study findings, were identified, including the provision of reproductive health care and accessibility to contraceptives for youths as young as 12 years within a school setting. This care should be provided by healthcare professionals, such as nurses, on a similar operating basis as that which is provided in primary health clinics. The findings reveal to the pressing need for the development, implementation and evaluation of an alternative model for reproductive health care provision in order to assure the complete deliverance of the rights and care to youths as stipulated in the new Child Act (Act 38 of 2005).

## OPSOMMING

Voortplantings gesondheid is die reg van elke persoon. Die nuwe Kinderwet (Wet 38 van 2005) gee aan elke kind 12 jaar en ouer die reg tot voortplantings gesondheid, wat insluit toegang tot swangerskap voorbehoeding en informasie aangaande seksualiteit en voortplanting. Die jeug het ook die reg tot HIV/AIDS toetsing en behandeling met net hulle eie toestemming. Die doelwitte daargestel is om te bepaal watter persoonlike en kontekstuele faktore die toegang en gebruik van voortplantings gesondheidsonderrig bevorder en/of benadeel by jonger tieners (13 tot 18 jaar). Die studie sou ook vasstel wat die voorwaardes is vir n toeganklike voortplantings gesondheidsorg diens vir hierdie tieners.

'n Beskrywende, nie-eksperimentele navorsingsontwerp was gebruik met n primer kwantitatiewe benadering. 'n Steekproef van 270 deelnemers, insluitende 20% van die studie populasie (N=1373) was vanuit die Northlink Verdere Onderrig en Opleidings Kolleges (Kaapstad) by die studie betrek. Die vraelys gebruik was gestruktureerd en is self deur deelnemers voltooi. Etiese Komitee van die Mediese Fakulteit te Universiteit Stellenbosch verkry asook die Bestuur van Northlink Kollege.

'n Loodstudie was gebruik, waarby 30 deelnemers wat inpas by die insluitings kriteria (11% van die studie populasie) betrek is. Die betroubaarheid en geldigheid van die studie is deur die loodstudie, die gebruik van 'n statistikus, verpleegdeskundiges en die navorser-metodoloog versterk. Die finale data is persoonlik deur die navorser ingevorder.

Data was geannaliseer met die bystand van 'n statistikus en is as frekwensie tabelle uitgebeeld met die gebruik van Chi-hoek ( $\chi^2$ ) en Mann-Whitney U toetse. 'n Tema benadering is geneem om die kwalitatiewe data te annaliseer. Gevolgens is die data van die kwalitatiewe studie gekwantifiseer.

Die bevindings van die studie het getoon dat 74.1% (n=195) van deelnemers seksuele ondervinding voor die studie gehad het. Van die deelnemers het 60.5% (n=115) hulle eerste seksuele ondervinding gehad voor die ouderdom van 16 jaar. Van die deelnemers het 33.2% (n=77) hulle voortplantings onderrig teen 13 jarige ouderdom ontvang. Net 50.4% (n=116) van deelnemers het bekend gemaak dat die onderrig wat hulle ontvang het, hulle altyd gelei het tot veiliger seksuele keuses. Van die deelnemers het 21.9% (n=59) het gevoel dat hulle op een of ander manier verhoed was om voorbehoeding te bekom.

Van die deelnemers, sou 94.4% (n=255) verkies het om alternatiewe voortplantings gesondheidsonderrig van 'n professionele gesondheidsorg voorsiener te ontvang, 61.5% (n=166) in klinieke en 33% (n=89) deur 'n verpleegster by 'n skool. 'n Toename in voortplantings onderrig binne die skoolsisteem is versoek deur 52 (19.3%) van die deelnemers, met 30% (n=84) van die deelnemers wat voortplantings onderrig van die huis af sou verkies het.

Die hoop word dus uitgespreek dat die voorsiening van voortplantings gesondheidsorg aan kinders so jonk as 12 jaar binne die skool sisteem voorsien kan word, deur 'n professionele gesondheidsorg verpleegster op 'n soortgelyke basis as in publieke gesondheids klinieke. Die studie se bevindinge lei die navorser tot die voorstel om n alternatiewe model te ontwikkel en beplan. Hierdeur moet die voorsiening van voortplantings gesondheidsorg geskied wat sou verseker dat die volledige regte en sorgvoorwaardes aan die heug toegestaan deur die nuwe Kinder Wet (Wet 38 van 2005), aan voldoen word.

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My husband, Tiaan; for being the witness of my progress.

## **DEDICATION**

To Mrs. C Myburgh; for encouraging curiosity when the world demanded compliance.



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## LIST OF ABBREVIATIONS USED IN THE ASSIGNMENT

<b>ANOVA</b>	Analysis of Variance
<b>ANC</b>	African National Congress
<b>DoE</b>	Department of Education
<b>DoH</b>	Department of Health
<b>FET</b>	Further Education and Training
<b>HIV</b>	Human immunodeficiency virus
<b>IEC</b>	Information, education and communication
<b>IRIN</b>	Integrated Regional Information Network
<b>MS</b>	Microsoft
<b>NCOP</b>	National Council of Providers
<b>PDP</b>	Population Development Program
<b>PI</b>	Principal Investigator
<b>Q</b>	Question
<b>RHRU</b>	Reproductive Health Research Unit
<b>SAPS</b>	South African Police Service
<b>STD</b>	Sexually transmitted diseases
<b>TOP</b>	Termination of Pregnancy
<b>UNAIDS</b>	Joint United Nations Program on HIV/AIDS
<b>UNICEF</b>	United Nations International Children's Emergency Fund Foundation
<b>WHO</b>	World Health Organization

“Yes! The focus should be on young children because they are being bombarded by the media with sexual images and it is in those young years where the wrong mental attitude towards sex is developed. I believe in first love, then sex. The other way around screws everything up.”

(Participant, 2009)



# CHAPTER 1

## SCIENTIFIC FOUNDATION OF THE STUDY

---

### 1.1 Introduction

Chapter 1 provides an overview of the rationale for and the aims and objectives of the study. This chapter also briefly describes the design and approach of the study and the structure of the assignment. Ethical considerations regarding the project are discussed, as well as the conceptual framework it is based upon. A clear outline of the study is given.

### 1.2 Rationale and background literature

Reproductive health is the right of every person. The World Health Organization (WHO) defines reproductive health as: "...a state of physical, mental, and social well-being in all matters relating to the reproductive system at all stages of life. Reproductive health implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when, and to have access to safe, effective, affordable, and acceptable methods of family planning of their choice, and the right to appropriate health-care services that enable women to safely go through pregnancy and childbirth" (Progress 2005:45).

International human rights treaties declare that reproductive rights; including reproductive health, family planning, reproductive self-determination, and non-discrimination; are all constituent parts of human rights (Centre for Reproductive Right 2003:1). The right to reproductive health is equally applicable to adults, adolescents and children, in respect of which international law states that human rights are also applicable (Centre for Reproductive Rights 2009:1). Ensuring reproductive health for everyone, including adolescents is the obligation of the South African government, which thereby serves to assure the human rights of all South African citizens. In order to enable them to make informed decisions regarding their reproductive health, the youth have to be exposed to adequate reproductive health education. Such exposure must ensure that they are aware of, and fully understand,

their right to reproductive healthcare. The Centre for Reproductive Rights (2008:1) states: “A comprehensive understanding of sexual and reproductive health is imperative to an individual’s ability to protect his/her health and make informed decisions about sexuality and reproduction”.

South African statistics regarding the reproductive health of youth indicate the need for their reproductive health rights to be adequately assured. The estimated number of children (0 to 14 years of age) living with the human immunodeficiency virus (HIV) in South Africa has increased from 150 000 cases in 2001 to 280 000 cases in 2007 (WHO/UNAIDS/UNICEFF 2008:5). Since youth extends beyond 14, and HIV testing might occur years after infection, one must consider the number of older youths and adults (15 years and older) potentially living with HIV in South Africa. The latest available data suggest an increase in adult (i.e. persons older than 15 years) HIV cases from 4 600 000 in 2001 to 5 400 000 in 2007 (WHO/UNAIDS/UNICEFF 2008:5).

During the past few years there has been also a significant rise in the number of reported pregnancies among South African youth. In Gauteng Province alone the number of pregnancies among schoolgirls increased from 1 169 cases in 2005 to 2 336 in 2006 (IRIN 2007:1). A South African survey, conducted in 2003, found that 67% of 15 to 19 year old females (64% urban vs. 69% rural) were sexually active. Of those girls, 33% have experienced pregnancy, of which 66% were unwanted (RHRU 2003:34).

The empowerment of youths to determine their own reproductive health status is essential. The increasing rates of HIV infection and teenage pregnancies are causes of major concern. In addition, the high prevalence of reported sexual assault cases among youths is alarming. A South African government taskforce documented that, in 2002 alone, 21 000 rapes were reported, 41% of the cases being females under 18 years, of which 50% were under the age of 11. Overall, 21% of the perpetrators of such rapes were male relatives. Among those rapes, which were reported by children 15 years and younger, 33% of the perpetrators were school teachers (Parliamentary Task Force 2002:47). The taskforce noted incidences in South Africa of some HIV-positive men being driven to have sex with children in the false belief that it would cure them of HIV, in which belief they had been guided by traditional healers (Parliamentary Task Force 2002:49). As shown in the report, the sexual assault of children is not a new occurrence within South African communities. The problem has,

however, grown exponentially in the last few years. According to the South African Police Service's (SAPS) statistics for 1991, sexual assault of children 10 to 12 years old was mostly reported (Parliamentary Task Force 2002:17). At the time of the 2001/2002 inquiry, 50% of the reported sexual assault cases were found to occur among children below 7 years old (Parliamentary Task Force 2002:17).

The reported statistics on the increasing rates of HIV infection, as well as on pregnancies and sexual assault among the youth, urge the need for the provision of comprehensive reproductive health education targeted at youths from an early age. Such education should offer youth the knowledge and skills to make informed decisions about the state of their reproductive health. WHO (Centre for Reproductive Rights 2008:3) recommends the inclusion of explicit reproductive and contraceptive information in school curricula. Abstinence-only approaches have been found to be ineffective, and there is a need for the advantages and disadvantages of contraceptives to be discussed (Centre for Reproductive Rights 2008:3).

It is, however, a contradiction to expect the youth of South Africa to choose what applies in terms of their own reproductive health, when their access to contraceptives is neither free, nor without hindrance. Since contraceptives are not provided freely in South African schools, public health clinics are the main site of free (no cost) access (Han & Bennish 2009:2). A seminal South African study concerning contraceptive use noted that youths were hesitant to attend public health clinics for contraception, in case they might be ridiculed and chastised by their parents, caregivers or community. The youths disclosed that, if they did eventually choose to make use of such services, they tended to do so only after multiple sexual encounters (Mfono 1998:10). A further South African study identified the attitudes of nurses as major barriers to youths accessing contraception. The youths reported that the nurses appeared to be uncomfortable about providing them with contraception, since the latter seemed to think that the former should not be engaging in sexual activities. They perceived the nurses to be highly judgmental and unhelpful, equating their treatment with harassment (IRIN 2007:2).

In an attempt to improve the accessibility of reproductive health support to youths, the South African government formulated the new Child Act (South African Constitution 2005: Act 38; in Hassim, Heywood & Berger 2007:308), which was signed by former State President Mr. T Mbeki. The Act came into full force on 1 April 2010 (Mahery, Proudlock & Jamieson 2010:3). In terms of the new legislation, the age of consent to medical treatment, including HIV testing and surgery, is 12 years of

age, provided that the youth concerned is mature enough to understand the benefits, risks, social and other implications of such treatment. The Act clearly states that every child has the right to access information on health promotion, including sexuality and reproduction. One of the most significant changes made in this Act is to give children of 12 years and older the right to access contraceptives without parental consent, and within complete confidentiality (Hassim et al. 2007:308). It is, therefore, the obligation of the Department of Health (DoH), as well as the Department of Education (DoE), to implement the Act as comprehensively as possible. Achieving such comprehensive implementation requires taking into consideration what the youths regard as being comprehensive and appropriate, as well as accessible. As yet, there appears to be no published information or reports regarding what South African youths think of the content, design and provision of comprehensive and accessible reproductive health education and care.

This study endeavored to investigate the perspectives of youths concerning factors promoting or impeding the accessibility to, and uptake of, reproductive health education throughout their early youth, from the age of 13 to 18. The study also investigated their recommendations toward improved reproductive health education and contraceptive accessibility, where it is targeted specifically at high school youths, aged 13 to 18 years. Such knowledge is important to ensure that reproductive health policies and services are inclusive of, and responsive to, the needs of the youth. According to Hassim et al. (2007:viii): "Peoples' needs must be responded to, and the public must be encouraged to participate in policy making". The results of the research will aid the development of strategies aimed at improving the provision and uptake of reproductive health education during early youth.

### **1.3 Research problem**

The available statistics expose the ongoing rise in HIV infections, pregnancies and sexual assaults among South African youth (WHO/UNAIDS/UNICEFF 2008:5; IRIN 2007:1; RHRU 2003:34; Parliamentary Task Force 2002:17). This situation urges the need for the provision of comprehensive reproductive health, targeted at youths from an early age. New South African legislation intends to empower youths to choose the state of their own reproductive health from as early as 12 years of age (Hassim et al. 2007:308). Such laws state that reproductive health education, including contraceptive measures, must be available to youths without hindrance (such as that of judgment, ridicule, or parental non-consent). New legislation, the Child Act (Act 38

of 2005), came into full force on 1 April 2010 (Mahery, Proudlock & Jamieson 2010:3), but there is, as yet, no documented evidence that the opinion and/or input of youths is being considered in the planning and provision of the reproductive healthcare system. Furthermore, public healthcare clinics are perceived as unapproachable by those youths who wish to access the reproductive health services (IRIN 2007:2).

#### **1.4 Research question**

The question explored in the study was: What are the personal and contextual factors which influence the accessibility and uptake of reproductive health education during early youth (age 13 to 18), according to the experiences of 18 to 19 year old Further Education and Training (FET) college students within the Cape Town Metropolitan area?

##### **1.4.1 Operational rationale**

The study purposively focused on the time period of ages 13 to 18 years, which account for the early youth and the general high school period. Furthermore, the experiences of participants during their primary school years were excluded in order to minimize potential recall bias.

For the purpose of the study, contextual factors were taken to include multiple influences, such as the attitudes of healthcare providers, peer dynamics, level of reproductive health education, accessibility and comprehensiveness of information, as well as the accessibility of contraceptives. Personal factors considered during the study included the choice of whether or not to use the available reproductive health information when making reproductive health decisions, negative or positive influence by peers and partners, a preferential access point for contraceptives, and the age of first sexual intercourse.

The study did not include a focus on termination of pregnancy (TOP). Although TOP is recognized as an integral part of reproductive healthcare system, the WHO does not include TOP as a specific measure of prevention within their definition of reproductive health (Progress 2005:45). Accordingly, as the study was based on the WHO definition of reproductive health, as described in section 1.2, and in order to

prevent potential recall stress experienced by the 18 to 19 year old participants, TOP was not to be included as part of the study.

## **1.5 Research aim**

The aim of the study was to investigate the personal and contextual factors which influenced the accessibility and uptake of reproductive health education during early youth (age 13 to 18), according to the experiences of 18 to 19 year old FET college students. The study also aimed to identify contextually appropriate recommendations, as identified by these students, toward improved reproductive health education for such youths.

## **1.6 Research objectives**

The specific objectives of the study were to:

- a) Identify the personal factors, which impede or promote the uptake of reproductive health education.
- b) Identify the contextual factors, which impede or promote the uptake of reproductive health education.
- c) Determine the perceived prerequisites of an accessible reproductive health service, meeting the needs of early youths.
- d) Identify recommendations toward improved provision and uptake of reproductive health education during early youth.

## **1.7 Research methodology**

The research methodology applied during this study will be discussed in the following subsections; research approach and design, population and sampling, data collection tool, pilot study, validity and reliability, data collection, data analysis and ethical considerations

### **1.7.1 Research approach and design**

A descriptive, non-experimental, research design was employed with primarily a quantitative approach. Descriptive research is used to examine real-life situations in order to determine and describe the factors influencing those situations (Burns & Grove 2007:24), In keeping with the descriptive design; the variables were not manipulated (Burns & Grove 2007:240).

### **1.7.2 Population and sampling**

The study population, for the purpose of the study, consisted of students from the Northlink FET College within the Cape Town Metropole. The college was selected for its heterogeneous student population, originating from diverse socio-economic and cultural backgrounds.

The Northlink FET College comprised of eight campuses. The Principal Investigator (PI) was granted permission by the campus management to sample from five sites where the study would not interfere with the academic activities or examinations.

The study sampled those students who matched the following specific criteria:

- enrolled at the North Link FET College;
- within the age group of 18 to 19 years; and
- having attended a South African high school from 13 to 18 years of age.

From the five campus sites included in the study, a total of 1373 students were found to match the inclusion criteria, of which 270 (20%) were sampled using a random approach. According to De Vos, Strydom, Fouche & Delport (2007:195) a sample of 10% should be proficient for controlling sample errors. In consultation with a

statistician, Prof D. Nel of Stellenbosch University, it was established that, for the purpose of the study, a sample of 20% would be efficient to control for sampling errors.

Using random sampling, each student age 18 or 19 theoretically had an equal chance of being selected for the sample population (De Vos et al. 2007:200). The PI arranged appointments with campus management for sampling without prior knowledge of the specific class times or student attendance. On the arrival of the PI, the campus manager selected those classes with the highest potential of students within the required age group, which were approached for sampling. Accordingly, a simple random sample of 270 (20%) was drawn from the study population (N=1 373).

### **1.7.3 Data collection tool**

The data collection tool consisted of a self-completion survey-style questionnaire (Appendix A). The PI developed the questionnaire based on the findings from the literature review, coupled with guidance received from a reproductive health and nursing research expert, Dr F Marais, and a statistician from Stellenbosch University, Prof D Nel.

The questionnaire comprised mainly closed-ended questions, requiring the study participants to comment retrospectively about their early youth, from the age of 13 to 18 years. The questionnaire also contained one open-ended question, enabling participants to add further information and offer any comments or recommendations.

The questionnaire, provided in English only since it was the main educative language at the Northlink FET College, investigated the following key domains:

- Demographic profile
- Sexual intercourse experiences
- Reproductive health education
- Contraceptive measures

### **1.7.4 Pilot study**

According to Burns and Grove (2007:38), pilot studies are conducted in order to refine the research methodology, as well as the steps in the research process. In this



study, a pilot study was conducted prior to the main study in order to test both the research approach and the instrument, to identify discrepancies, and to refine the overall methodology, including sampling, the instrument, and method of data analysis. A group of 30 participants, constituting 11% of the sample (n=270), was used for the pilot study. The participants and data from the pilot study were excluded from the main study.

#### **1.7.5 Validity and reliability**

Validity is the extent to which an instrument reflects the abstract concept being examined (Burns & Grove 2007:364). The self-completion questionnaire was tested for face validity by means of the pilot study. Content validity, and the appropriateness of the key domains and variables used in the questionnaire, was ensured by the findings from the literature and evaluative input from experts in the field of reproductive healthcare.

Reliability is the extent to which an instrument consistently measures a concept (Burns & Grove 2007:364). Reliability was enhanced by means of the pilot study to ensure complete and constant capture of the required data. Reliability was further enhanced by means of consultation with a reproductive healthcare research specialist, Dr F Marais. Furthermore, a statistician evaluated and confirmed the statistical feasibility of the questionnaire and the method of analysis, based on the pilot study data.

#### **1.7.6 Data collection**

Data collection is the identification of subjects and the precise, systematic gathering of information relevant to the research purpose or the specific objectives, questions, or hypotheses of a study (Burns & Grove 2007 536). After random sampling, the PI obtained written consent from the participants, before supplying each with a copy of the questionnaire for self-completion within class. The PI remained present to offer whatever clarification and guidance were requested, and to collect all the questionnaires on completion. Data collection across the five participating sites was completed over a six-week period (from July to August 2009).

### **1.7.7 Data analysis**

Data analysis is the technique used to reduce, organize and give meaning to data (Burns & Grove 2007:536). The quantitative data were entered into Excel (Office 2008) by the PI and analyzed statistically using Statistica Version 8.1 software, with the assistance of a statistician; Prof D. Nel of Stellenbosch University. The study was primarily descriptive in nature. Accordingly, the focus of the analysis was more on descriptive statistics, which included frequency tables, proportions, and measures of relationships, using where indicated, Chi-square ( $\chi^2$ ), Mann-Whitney U and Kruskal-Wallis (for more than two categories) tests. In all statistical tests a significance level of 5% was used, with a p-value  $p < 0.05$ , to determine the statistically significant relationships.

A thematic approach (Burns & Grove 2007:540) was used to analyze the qualitative data yielded from the open-ended question. Subsequently, in order to strengthen the investigation, the qualitative data, within the identified themes, were quantified, based on the approach developed by Culp & Pilat (1998:3).

### **1.7.8 Ethical considerations**

Ethical approval for the study was obtained from the Health Research Ethics Committee at the Faculty of Health Sciences, Stellenbosch University (Appendix B). In addition, operational approval was obtained from the management of the Northlink FET College head office (Appendix C).

Written informed consent was obtained from each participant (Appendix D). Their consent forms, as well as the questionnaires, were completed under examination conditions, with each person having access only to their own information. On completion, the forms and questionnaires were stored separately in a secure filing cabinet at the office of the PI. Only the PI had access to the questionnaires until the data were captured on the Excel data sheet. The sensitivity of the research topic was acknowledged throughout the study. Accordingly, appropriate arrangements were made with the psychological and social support programme, which was based at each research site, to provide sufficient support to the study participants, in the case of their experiencing any emotional distress. Confidentiality was assured by maintaining conditions, which allowed for the questionnaires to be completed in

privacy. Only the PI had access to the questionnaires on completion. Anonymity was assured by not collecting any personal identifying details on the questionnaires. The coding of the questionnaires only took place during data capturing.

## **1.8 Conceptual framework**

A conceptual framework is seen as the description of the phenomena of interest in terms of abstract, yet related, constructs (Burns & Grove 2007:534). The conceptual framework developed to navigate the planning and execution of the study was based upon the theories of nursing by Virginia Henderson, who related the health of a person to the ability of the individual to function independently (George 2002:89). Such a view was adopted by the PI, as the study population faced numerous challenges in functioning independently with regard to determining their own reproductive health.

## **1.9 Definitions used in the study**

### **Abstinence**

'Abstinence' refers to voluntary refraining from any sexual activity (Mosby's Dictionary 2002:9).

### **Comprehensive**

'Comprehensive' relates to that which is understandable and complete/extensive, as well as to that which is appropriate to the recipient.

### **Contraception**

'Contraception' relates to methods that, when practiced/used correctly, will aid in preventing pregnancy (adapted from Mosby's Dictionary 2002:425).

### **Educator**

An 'educator' is a person who informs you concerning a specific topic.

### **Forced sexual intercourse**

'Forced sexual intercourse' refers to sexual intercourse that takes place without the full permission/consent of all parties involved.

**Mainstream school**

A 'mainstream school' is a conventional state/private high school, at which grades 8 to12 are taught.

**Reproductive health**

'Reproductive health' refers to "A state of physical, mental, and social well-being in all matters relating to the reproductive system at all stages of life. Reproductive health implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when, and how often to do so. Implicit in this are the right of men and women to be informed and to have access to safe, effective, affordable, and acceptable methods of family planning of their choice, and the right to appropriate health-care services that enable women to safely go through pregnancy and childbirth" (Progress 2005:45).

**Reproductive healthcare**

'Reproductive healthcare' refers to the constellation of methods, techniques, and services that contribute to reproductive health and well-being by preventing and solving reproductive health problems. It also includes reproductive health, the purpose of which is the enhancement of life and personal relations, and not merely counseling and care related to reproduction and sexually transmitted infections (Progress 2005:45).

**Reproductive health education**

'Reproductive health education' refers to the information and facts, which are provided in order to inform the recipient concerning reproductive health, the potential of contracting sexually transmitted diseases and contraception.

**Sexual intercourse**

'Sexual intercourse' refers to sexual activity between two or more people, consisting of oral, vaginal and/or anal penetration of one person by the penis of another person (hetero/homosexual activity) or by force of an object (adapted from Mosby's Dictionary 2002:391).

**Sexually transmitted diseases (STD's)**

A 'sexually transmitted disease' is a contagious disease usually acquired by sexual intercourse or genital contact (e.g. Gonorrhea, Syphilis, Herpes, AIDS) (adapted from Mosby's Dictionary 2002:1572).

**Uptake**

'Uptake' refers to the understanding and making use of facts and information discussed during education.

**Your sex**

'Your sex' refers to whether you are male or female (adapted from Mosby's Dictionary 2002:1569).

**1.10 Time frame**

The time frame for the completion of the study was 5 months.

**1.11 Chapter outline****Chapter 1: Scientific foundation of the study**

Chapter 1 describes the rationale for the study. The chapter includes a brief overview of the literature, research methodology, and the conceptual framework applied in the study.

**Chapter 2: Literature study**

Chapter 2 presents the findings from the review of pertinent literature, discussing the issues facing the youth of South Africa regarding their reproductive health (uptake of reproductive health education and accessibility of contraception).

**Chapter 3: Research methodology**

Chapter 3 describes the research methodology applied in the study.

## **Chapter 4: Data analysis, interpretation and discussion**

Chapter 4 presents and discusses the results of the study.

## **Chapter 5: Conclusions**

Chapter 5 summarizes the achievement of the study objectives, presents the recommendations, describes certain limitations of the study, and draws together the final conclusions.

### **1.12 Conclusion**

Chapter 1 described the ongoing rise in HIV infections, pregnancies and sexual assaults experienced by the youth of South Africa. This alarming situation urges the empowerment of the youth, enabling them to make informed choices in determining their own reproductive health. Such choices necessitate the provision of comprehensive reproductive health education targeted at the youth from an early age. The laws of South Africa have changed to such an extent that the much needed right to choose the state of their own reproductive health will become a reality for youths from 12 years of age. However, there is no documented evidence of the opinion or input of youths being considered in the planning and provision of reproductive healthcare. Currently, the main points of reproductive healthcare access, including contraception, are public healthcare clinics, which do not currently meet the needs of youths (IRIN 2007:1-2, Mfono 1998:10-11).

The purpose of the study, therefore, was to apply a descriptive, non-experimental research design to investigate the personal and contextual factors which influence the accessibility and uptake of reproductive health education during early youth (age 13 to 18). Furthermore, the study also sought for youths to identify their own recommendations regarding improved reproductive health during early youth. The results of the study will be disseminated widely through presentations at relevant meetings and conferences, publications in nursing and/or medical journals, and the provision of a study report both to the management of the Northlink FET College campuses involved in the study and the Northlink FET College management.

Chapter 2 will present the findings of the review of existing evidence, which underpinned the development of the research focus and approach.

## **CHAPTER 2**

### **LITERATURE REVIEW**

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#### **2.1 Introduction**

Chapter 2 presents the findings from the review of pertinent literature. The purpose of a literature review is to contribute towards a clearer understanding of both the nature and meaning of an identified problem (De Vos et al. 2007:123). Accordingly, the literature review sets out to explore the existing evidence about the current circumstances facing the youth in South Africa concerning their reproductive health status, and the availability and uptake of reproductive health education, including contraceptives. Chapter 2 also describes the conceptual framework developed for, and applied in, the study.

#### **2.2 Selecting and reviewing the literature**

The process of literature review for this study was done over a period of 18 months, continually extending to investigate and evaluate new issues arising. As it was a study of South African youth, the main criterion for material used was that it should be mainly South African based studies. To a greater extent, the material was selected not to be older than 10 years, yet still including seminal studies from an earlier time frame.

Material was selected from multiple electronic data bases (including Pubmed, and Cochrane Library); periodicals, journals and different monographs (pamphlets and books), as well as searching through different reference lists. The review includes consideration of new laws and acts, as well as the findings of other researchers in the field of reproductive health education. Governmental reports on health related matters were included in the review, as well as non-governmental reports on societal matters. Some of the key words used in the search included 'child act', 'reproductive health', 'South African legislation', 'teenage pregnancies', 'HIV statistics' and 'contraception'.

Many studies included the occurrence of HIV infection and prevalence of pregnancies among South African youth. The literature also presented the situation facing the



youth, regarding restricted access to reproductive health education and as well as contraception. There was, however, no evidence of any involvement of youths when structuring these services, nor any record of the consideration of South African youths' specific expressed needs in service delivery planning.

## **2.3 Findings from the literature**

The findings from the literature review will be described under the following headings:

- South African history of contraceptive legislation and availability;
- Current legislation regarding contraceptives in South Africa;
- Expected service delivery of contraceptive care;
- Reproductive health profile, in terms of:
  - South African HIV infection rates;
  - teenage pregnancies; and
  - sexual assault;
- Reproductive health education; and
- Accessibility to contraception.

Gaps in the literature will be identified, as well as the potential of the findings of this study to address some of them (Burns & Grove 2007:135–136). Referencing in this chapter, and throughout the assignment, is presented in accordance with the Harvard style of referencing (Harvard 2009).

### **2.3.1 South African history of contraceptive legislation and availability**

A clear understanding of contraceptive services in South Africa, both before and during the apartheid regime, is needed to determine the current level of service delivery and to identify gaps in the provision of contraceptive means (DoH 2001:5). The history of contraceptive availability and the progress of in-service delivery in South Africa closely correlate with the history of progress made within our governing entities. Before the colonisation of Southern Africa, the fertility of the native

inhabitants was determined by a variety of cultural (tribe-specific) beliefs and practices, such as one wife per man and virginity testing. With their development, many such practices, which were intended to prevent conception, could no longer be sustained. Plaatjies (1982, in DoH 2001:5) noted that the interruption of family life and disruption of viable and stable social relations had a frequent discontinuation of traditional practices for fertility regulation and substantial sexual morals changes as result.

The South African government began selectively to provide contraceptive services from the 1930s onwards. Historical records indicate that the "...support of birth control at this time was to improve the 'quality' of the white population through limiting the number of children born to poor white women" (DoH 2001:5). Such discriminatory strategy was effective. The rate of population growth of lower class whites in South Africa slowed down between 1930 and 1960, due to the accessibility of such contraceptive services. Such a decrease in rate occurred in correlation with a dramatic increase in the size of the ineffectively regulated or contraceptive-deprived black population. With the proliferation of the black population in the 1960s, which was regarded by the whites in South Africa as being so ominous as to pose a "swart gevaar" (black fear), the government responded by introducing new demographic-related policies and programmes (DoH 2001:6). As a result, the black citizens of South Africa were granted much greater access to contraceptive means. Although the country was benefitting from the large pool of low-cost black labourers available to it, the white-run government still felt the need to even out the population dynamics. Regarding the rapid increase in the number of black South Africans, in 1972 Prime Minister B.J. Vorster said: "We would like to reduce them, and we are doing our best to do so, but at all times we would not disrupt the South African economy" (DoH 2001:6).

All racial groups in South Africa received contraceptive care from 1974 onwards, with the institution of the national Family Planning Programme (DoH 2001:6). In terms of the Programme, care was provided by the maternal and child health services, as well as by the mobile health clinics. Despite the expanded provision of contraceptive care, the quality of care delivery remained inequitable. Documentary evidence reveals that although there was an ideological shift, there was no increase in quality of care as this family planning services was not provided from a health and human rights framework, but rather firmly institutionalized within a demographic framework (DoH

2001:6). The efficacy in the provision of contraceptive care to South Africans thus depended on where they found themselves to be situated demographically. The Population Development Programme (PDP), established in 1984, aimed to influence and decrease the rate of population growth through a multi-sector approach, including primary health care, education and economic development. However, the relatively sparse resources and the lack of government authority was a drawback to the Programme. Subsequently, in 1990, the PDP shifted the focus of its work to: "... the development and implementation of population information, education and communication (IEC) programs" (DoH 2001:7).

The provision of contraceptive means soared during the early 1990s, so that, by 1992, the number of service delivery points totalled 65 182 (DoH 2001:7). However, those black South Africans who were relegated to eking out an existence in the apartheid-formed homelands were excluded from the expanded contraceptive care delivery. Family planning and contraceptive service delivery in the homelands was under the control of the individual local authorities. Local hospital superintendants generally managed such service provision, resulting in suboptimal service delivery. Family planning, in most cases, was assigned a relatively low priority within such a managerial setup (DoH 2001:7).

### **2.3.2 Current legislation regarding contraceptives in South Africa**

The birth of democracy in South Africa brought about many changes from the preceding apartheid era. The election of the African National Congress (ANC) leader, Mr Nelson Mandela, to the position of President of South Africa in 1994 marked the start of broad transformation. With the new government came the new Constitution, including the South African Bill of Rights, in 1996. "An enduring strength of South Africa's new democracy is our Constitution and in particular, the Bill of Rights. The Bill of Rights deliberately connects people's rights to participate in political governance to their rights to conditions of life that will allow them to live with dignity, as equals" (Madlala-Routledge 2006, in Hassim et al. 2007:vii). The landmark transformations brought about by such legislation to the rights of South African citizens resulted in many positive changes, especially in terms of the DoH and service delivery. "The Bill of Rights is a cornerstone of democracy in South Africa. It enshrines the rights of all people in our country and affirms the democratic values of human dignity, equality and freedom" (RSA 1996c:1247). In line with the demands

made in the Bill of Rights many aspects of the healthcare system at the time had to change.

In regard to the healthcare system, certain parts of the Bill of Rights are of particular relevance. The Bill of Rights asserts the following, in this respect:

- Every South African has the right to *human dignity*: “Everyone has inherent dignity and the right to have their dignity respected and protected” (RSA 1996c:1247). The challenges posed to the healthcare sector are particularly daunting in this respect, especially if the sector is not properly administered. People’s rights to dignity are, in part, ensured by their adequate access to healthcare and consequent good health. The South African Constitution seeks to entrench such fundamental values (Hassim et al. 2007:18).
- Every South African has the right to *privacy*: “Everyone has the right to privacy, which includes the right not to have the privacy of their communications infringed” (RSA 1996c:1249). The right to privacy includes the right to access information relating to personal aspects of healthcare.
- Every South African has the right to life (RSA 1996c:1247). They may choose whether to subject themselves to life-threatening infections.
- Every South African has the right to have access to healthcare services, “including reproductive healthcare” (RSA 1996c:1255), as well as to food, water and social security.

The right to access healthcare, in a way that neither impedes personal dignity nor privacy, includes the right to access reproductive healthcare and contraceptives.

In addition to the above legislation, the government compiled the National Patients Rights Charter (RSA 1996c:1247 and 1255), in order that patients who fall within the South African healthcare system are ensured adequate standards of care, in conformance with the standards set in the Bill of Rights. The Charter states that every patient has the right to:

- participate in decision-making, in respect of “the right to participate in the

development of health policies and ... in decision-making on matters affecting one's health" (RSA 1996c:1);

- access to healthcare, in respect of "the right of access to healthcare services that include: counselling without discrimination, coercion or violence on matters such as reproductive health, cancer or HIV/AIDS; a positive disposition displayed by healthcare providers that demonstrate courtesy, human dignity, patience, empathy and tolerance; and health information that includes the availability of health services and how best to use such services and such information shall be in the language understood by the patient" (RSA 1996c:1-2);
- confidentiality and privacy, in respect of "information concerning one's health, including information concerning treatment [which] may only be disclosed with informed consent, except when required in terms of any law or an order of the court" (RSA 1996c:2); and
- informed consent, in respect of "the right to be given full and accurate information about the nature of one's illnesses, diagnostic procedures, the proposed treatment and the costs involved, for one to make a decision that affects any one of these elements" (RSA 1996c:3).

In terms of the Charter, not only do South Africans have the right to dignity and privacy in accessing healthcare, but they also have the right to informed consent when accessing healthcare. They also have the right to participate in decision-making when it comes to issues regarding their own health, including their reproductive health.

Furthermore, in 2005 the former State President, Mr T. Mbeki, signed the latest Children's Act (RSA 2006; Act No. 38,2005), which states:

- "The age of consent to medical treatment is 12 years of age, provided they [i.e. the children of such an age] have the maturity to understand the benefits, risks, social and other implications. This includes consenting to HIV testing and surgery" (Children's Act; South African Constitution 2005: No. 38, in Hassim et al. 2007:299).
- "Every child has the right to access information on health promotion, including

sexuality and reproduction” (Children’s Act No. 38 of 2005, in Hassim et al. 2007:299).

- “Children of 12 (years) or above may also access contraceptives without parental consent, and with complete confidentiality” (Children’s Act No. 38 of 2005, in Hassim et al. 2007:299).

The abovementioned Children’s Act gives to children 12 years and older the right to reproductive health, including contraceptive access, as well as information on sexuality and reproduction. They have the right to HIV/AIDS testing and treatment with only their own consent (Mahery, Proudlock & Jamieson 2010: 5,14; Han & Bennish 2009:3). The implementation of the Act poses a challenge, as it is to be incorporated at a level that is in agreement with both the Bill of Rights and the National Patients Rights Charter. The National Council of Providers (NCOP) has advanced a motion in regards to Child Protection Week, preparing all South Africans for the ongoing implementation of the new Children’s Act (Ganyaza-Twalo 2008:5). In ensuring the speedy and efficient implementation of the Children’s Act, the focus is on making sure that the children’s rights to dignity, privacy, adequate healthcare, participation in decision-making regarding their (reproductive) health, as well as their right to informed consent, are upheld.

It is debatable whether responsibility for the implementation of the Children’s Act lies solely with the DoH, or also with the DoE. The government has assigned the responsibility to individual school governing bodies for deciding whether to distribute condoms on the relevant school premises. The absence of a clear national policy in such regard makes the increased access to condoms by youth at high risk of HIV unlikely (Han & Bennish 2009:2). However, the Children’s Act does state that the current access that is allowed to condoms by youths as young as 12 years may in no way be hindered (Han & Bennish 2009:3). This specification within the latest Children’s Act at least stipulates that the DoH allow access to contraceptive means to any person 12 years of age or older. The Act also allows for the possibility of condom access on school premises.

### **2.3.3 Expected service delivery of contraceptive care**

In terms of the new legislation, as discussed in the preceding section, certain improvements in the levels of service access and delivery are required in order to protect and promote the reproductive health of South African youths who are at high risk. "Given the continuing high HIV incidence rates in youth, it is important to examine current South African laws and policies governing condom distribution in schools and policies of international donor agencies supporting HIV/AIDS prevention programs in South Africa" (Han & Bennish 2009:2). As will be described in section 2.3.4.1, the current situation facing South African youth regarding HIV infection rates and teenage pregnancies gives cause for concern. In order to boost the HIV prevention rate, the new reproductive health rights, which are entrenched in the Children's Act, must be implemented (Han & Bennish 2009:1).

The Children's Act seeks to ensure the provision of reproductive health services to youths as young as 12 years old. Such a provision implies that, in addition to youths being empowered to access the contraceptive means to choose the outcome of their own reproductive health, they also have the right to be educated about reproductive health and contraception in such a way that they can make informed decisions in this regard (Mahery, Proudlock & Jamieson 2010: 3&6). Encouraging the use of contraceptive-related services not only helps to prevent HIV transmission, but also helps to prevent the birth of HIV-positive babies. The provision of such encouragement has been proved to be more cost-effective than has the provision of Nevirapine for HIV-positive mothers within the ambit of antenatal care (MacPhail, Pettifor, Pascoe and Rees 2007:14). Thus, the Children's Act, once implemented, will empower more of South Africa's youth to make informed choices, which might help to reduce the level of HIV infection, as well as to reduce the number of pregnancies and HIV-positive births.

As mentioned in section 2.3.2, the degree of involvement that is expected from the DoE in respect of providing reproductive health education and contraceptives to the youth is unclear in, though not excluded from, the Children's Act. Reproductive health service delivery to such youths needs to be custom adapted, so that it specifically relates to their immediate needs. Such delivery includes the supply of reproductive health services within the DoH, as well as within the DoE, if the Department so chooses, with the emphasis on both reproductive health education and contraceptive accessibility. "Communication is repeatedly emphasized in relation to working with adolescents, with confidentiality inherent to developing trust. This is

an absolute requirement to encourage help seeking” (Szabo 2006:2). Modification of the current reproductive health service delivery system for sexually active South African youth is required. According to Han and Bennish (2009:2), a persistent problem is the early age (9 to 10 years) of those engaging in their sexual début. In addition, the combination of HIV prevention education with the relative inaccessibility of condoms to such sexually active youths is problematic (Health and Development Initiative 2004, in Han & Bennish 2009:2). The youth clearly urgently require service delivery which ensures accessible and adequate reproductive health education and contraceptives, irrespective of whether such service is facilitated by the DoE or DoH.

The South African Constitution (RSA 1996) and Children’s Act (Children’s Act No. 38 of 2005) both clearly seek to entrench the reproductive health rights of youths. The question arises whether the country can financially afford to enforce such rights, since the education and health system would need extensive capacity development for extended service delivery to an expanded population now as young as 12 years of age.

According to Ganyaza-Twalo (2008:1), a dedicated sub-programme has been started within the DoH, focusing on the health of women, including their reproductive health. Funding of the programme increased from R16.5 million in the 2004/2005 financial year to R24.5 million in the 2008/2009 financial year (Ganyaza-Twalo 2008:1). MacPhail (2007:5) argues that the investment in sound reproductive health, including family planning, is not only beneficial toward pregnancy prevention or disease control, but also contributes toward the attainment of global development goals with resulting social and economic benefits.

#### **2.3.4 Reproductive health profile**

Since the Children’s Act (RSA 2006; Act No. 38,2005), discussed in section 2.3.2, was only recently passed, it would be unreasonable, on the basis of past statistics, to conclude that the Act has not yet been properly implemented within the DoH and DoE. It is, however, essential to examine the reproductive health profile of South African youth, including a consideration of the alarming rates of HIV prevalence, teenage pregnancies and sexual assault. The results of the examination prove the relevance and importance of the new Act, as well as the necessity for its speedy and efficient implementation in order to protect and promote the reproductive health of the youth. “Many in South Africa have supported expanding children's rights to



reproductive health services, reflecting the desire in the post-apartheid era to expand individual rights in response not only to injustices of the past, but also to the harsh realities of the present” (Han & Bennish 2009:8).

#### **2.3.4.1 South African HIV infection rates**

South Africa has one of the highest number of HIV-infected persons in the world (UNAIDS/WHO 2007:11). In 2008, an estimated 5.2 million people with HIV/AIDS were reported to be living in South Africa (SSA 2009). More than 50% of South African youth see the challenge posed by HIV/AIDS to be the most serious issue that they face (RHRU 2003:11). Since infection with HIV may occur years before it is detected, the number of youths potentially living with HIV is of concern. South African youths aged between 15 and 24, which is an age group with an HIV prevalence of 10.3%, account for 34% of all new HIV infections in the country (Han & Bennish 2009:1).

Certain gender and ethnicity groups are at a higher risk of acquiring the infection. It has been reported that, within the age group of 15 to 24 year old South Africans, 1 in 10 was found to be HIV-positive, of whom 77% were female and 95% black (RHRU 2003:1). The alarming increase in HIV infection rates in South Africa was supported by another study. The estimated number of children (0 to 14 years of age) living with HIV has increased from 150 000 cases in 2001 to 280 000 cases in 2007 (WHO/UNAIDS/UNICEFF 2008: 5). Since youth extends beyond 14, and HIV testing might occur years after infection, one must consider the number of older youths and adults potentially living with HIV in South Africa. The latest available data suggest an increase in adult (persons older than 15 years) HIV cases from 4 600 000 cases in 2001 to 5 400 00 cases in 2007 (WHO/UNAIDS/UNICEFF 2008: 5).

Taking into consideration the reported high rates of HIV infection, it is disconcerting that the reproductive health education that is currently available to the youth appears to have limited to no effect on the decisions made by the youth regarding their reproductive health. Only 52% of those participants reporting having had sexual intercourse said that they had used a condom during their last sexual encounter (RHRU 2003:9).

Authoritative role-players in the South African government have many misconceptions regarding HIV transmission and treatment. Uncertainty regarding HIV infection and its attendant dangers are caused by the contradictory statements made, and the policies formulated, by leading South African government officials (Han & Bennish 2009:8). The confusion created in such a way obfuscates public comprehension of the disease and its dangers. Furthermore, such misconceptions might cause confusion among the youth, leading them to question the accuracy of the information offered during their reproductive health education. A situation of mistrust is the result, which detracts from what might otherwise be the positive effects of reproductive health education.

Based on the review of the available literature there is an apparent lack of recorded statistics concerning STD's (besides HIV) among South African youth and children. This might indicate a shortage in research of STD's in such young age groups due to many reasons including the ignorance of the problem existing among children. This void of information limits the motivation to implement reproductive health care to youth regarding STD's.

#### **2.3.4.2 Teenage pregnancies**

The inadequacy of the reproductive health education that reaches South African youth in general, apart from potentially contributing to the high rate of HIV infection, could also account for the ever-increasing number of unwanted teenage pregnancies. A study among 15 to 24 year old women found that, of those who had been pregnant before, 66% (n=6 217) had unwanted pregnancies (RHRU 2003:35). With such high occurrences of unwanted teenage pregnancies comes the additional consequence of a social and service delivery system that is ill-equipped to manage the ever-increasing teenage pregnancy problem. As discussed by Richter, Norris and Ginsburg (2006:1): "there is a barely disguised moral opprobrium towards teen sexuality, especially among young women, and a deep ambivalence about teenage pregnancies, how they should be recognized and managed, and how they might be prevented and/or serviced to reduce negative effects on young parents and their children."

A South African survey, which was undertaken during 2003, showed an increase in the rate of teenage pregnancies, despite a number of initiatives to improve

reproductive health counselling and related services (Richter et al. 2006:1). The survey indicated the extent of South Africa's teenage pregnancy problem, identifying certain "pregnancy hotspots", in which areas 60% to 70% of female school-attending learners were pregnant, with a third of the female learners having given birth by 20 years of age. The survey postulates that the high rate of teenage pregnancies found among the population surveyed was related to gang activity, coercion and substance abuse.

The frequency of teenage pregnancies bears heavily on both the South African healthcare services, as well as on the youths who are involved themselves. The young mothers have their education disrupted and limit their own job opportunities, which exacerbate their poverty (Richter et al. 2006:1). Teenage pregnancies are on the increase, suggesting the failure of both the current preventative systems and of the programmes that are currently in place. According to Richter et al. (in Szabo 2006:2): "Regarding teenage pregnancy, the veil of secrecy as a consequence of shame has been highlighted as a failing of both family and health services to provide a secure and trusting environment that promotes open communication." When the issue of teenage pregnancy is not adequately addressed, or at least openly discussed, fellow youths have little opportunity and motivation to learn of the possible negative impact of such pregnancy on their lives.

#### **2.3.4.3 Sexual assault**

The prevalence of HIV and unwanted teenage pregnancies among the youth results from more than just their own choices or acts. The evidence suggests that those very adults who are responsible for protecting the rights of, and for educating, the youth about reproductive health issues often add to the problem.

According to a 2006 survey, the first sexual intercourse of 30% of young women in South Africa was found to occur under force or threat of force (IRIN 2007:1). Such statistics are only those of actual reported cases. A South African government task force documented that, in 2002 alone, 21 000 rapes were reported, 41% of which occurred among females under 18 years of age (of whom 50% were under 11 years of age). Overall, 21% of the perpetrators were male relatives. Among those rapes reported by children 15 years and younger, 33% of the perpetrators were school teachers (Parliamentary Task Force 2002:47). According to the SAPS data used in the report, the statistics for 1991 showed that most of the sexual assault reported

was of children aged between 10 and 12 years. At the time of the inquiry (2001/2002), 50% of the reported cases were those of children under 7 years of age (Parliamentary Task Force 2002:17). As shown in the Task Force report, the sexual assault of children is not a new occurrence within South African communities, though the problem has grown exponentially in a matter of only a few years.

The situation of sexual assault occurrences is exacerbated by misconceptions driven by influential role-players. The Task Force noted the occurrence of incidents in South Africa of some HIV-positive men being driven to have sex with children in the false belief that doing so would cure them of HIV, as they had been advised by traditional healers of such a cure (Parliamentary Task Force 2002:49). With the implementation of the latest Children's Act (RSA 2006; Act No. 38,2005), youths as young as 12 years old have reproductive health rights. These rights do not only empower them in making informed choices about their own actions, but also allow them access to preventative measures, which will assist them to avoid further bodily violation.

### **2.3.5 Reproductive health education**

If the Government, through the DoH and DoE, were to assure the reproductive health rights of South African youths in line with current legislation (especially the Children's Act), such youths would be provided with education regarding reproductive health from an early age. This education should, at least in part, improve the alarming reproductive health statistics reported in section 2.3.4. For a decrease in HIV infections and unwanted teenage pregnancies to be achieved, the provision of reproductive health education by the DoH and DoE is greatly challenged. The basic concepts of reproductive health are currently not effectively conveyed in terms of the reproductive health education that the youth receive. Claims have been made that 61% of HIV-positive and 73% of HIV-negative youth in South Africa do not perceive themselves to be at risk of HIV infection (RHRU 2003:72). Such youths were found to think it unnecessary to protect themselves when engaging in sexual intercourse. Even when engaging in high-risk sexual behavior, they failed to perceive themselves as more vulnerable to HIV infection (RHRU 2003:72). Such findings reveal the importance that reproductive health education should reinforce information relating to the risk of HIV infection, and other STDs.

A study among South African youth found that the average age of those who had already had sexual intercourse was 17 years old. Of those youths, 8% made their sexual debut before the age of 14 (RHRU 2003:8). The IRIN (2007:2) recommends the introduction of reproductive health education in schools before the age of 14, in order to reach the South African youth before they become sexually active. The findings discussed in sections 2.3.4.1 and 2.3.4.2 indicate the necessity for reproductive health education to reach the youth. However, the reproductive health education received from teachers and parents has, so far, been shown to be ineffective in establishing fundamental concepts regarding reproductive health (Richter et al. 2006:2). Not only the onset and frequency of reproductive health education, but also the quality of information which is imparted to youths, have proved insufficient. Parental disbelief in the efficacy of condoms, the lack of skills in donning condoms, and incorrect beliefs regarding HIV transmission have been reported (Han & Bennish 2009:7). Such problems have raised concerns about parental capacity. Reproductive health education must be appropriate, equipping the youth with correct contraceptive information to help safeguard them against HIV infection and unwanted pregnancy.

Primary health care clinics offer a further point of access to reproductive health education for the youth. This, however, does not appear to be an effective option either. The high workloads of healthcare providers, of whom some are ill trained to provide reproductive health education to youths, and staff shortages have been documented (DoH 2001:13). Currently, the main point of sexual healthcare and contraception access is by way of the public healthcare clinics, which are not currently meeting the needs of the youth (IRIN 2007: 2; Mfono 1998: 10).

Based on the abovementioned shortcomings in the reproductive health education system, South African youth cannot be expected to make informed decisions regarding their reproductive health. Inadequate knowledge of reproductive functioning, as well as misapprehensions regarding the use of contraceptive measures among the youth, have been reported (DoH 2001:10). A study among 15 to 24 year old women showed that 87% (n=3618) of participants reported having had sex in the past 12 months, 19.7% of the women were HIV positive, and yet only 44% had made use of a condom at their last sexual intercourse (MacPhail et al. 2007:4). In addition to not protecting themselves from possible infection by their partners, one in five youths reported not knowing their own HIV status (RHRU 2003:56). With the

implementation of the new Children's Act (Children's Act No. 38 of 2005) such educative issues have to become the focus in order for the importance of reproductive health rights to be realised by the youth.

### **2.3.6 Accessibility to contraception**

In addition to appropriate reproductive health education, the prevention of HIV infection, STD's and unwanted teenage pregnancies among South African youth also necessitate the availability of, and accessibility to, contraception. As mentioned in section 2.3.2, during the discussion of the latest Children's Act the right to access contraception (including condoms) has been extended to a wider population, including those as young as 12 years (Hassim et al. 2007:299). The reported ongoing increase in both the number of new HIV infections (WHO/UNAIDS/ UNICEFF 2008:5; RHRU 2003,11) and in the number of unwanted teenage pregnancies (IRIN 2007:1; Richter et al. 2006:1; RHRU 2003:35) have revealed the inadequate availability of, access to, and uptake of, reproductive health education services, including the provision of condoms and other forms of contraception. An inquiry, which was undertaken by the DoH, showed that some contraceptive service providers provided adequate service delivery, though many others were inefficient. The reasons for such inefficiency included an inability to meet the needs of service users, inadequate reproductive healthcare training for service providers, the lack of standardised national guidelines for contraceptive service delivery, as well as a lack of facilitative supervision, infrastructure, equipment and supplies (DoH 2001:13). Service providers were found further to fail the South African youth by limiting them in their choice of protection or contraception. Both dual-method protection (using two contraceptive means at one time) and emergency contraception were found to be limited (DoH 2001:12).

Even when the healthcare service was found to provide an adequate choice of contraceptive methods, the service provision was found to be inadequate in meeting the needs of the youth. Access to free condoms in public health clinics is hindered by the hostile and judgmental treatment of youths by the healthcare providers, with the clinics also usually being closed after school hours (Han & Bennish 2009:2). The high costs of travel to such clinics further impede access to condoms. In addition, those youths who do manage to visit the healthcare clinics face ridicule. According to

Richter et al. (2006:2), "One of the greatest barriers to assisting young people is their fear and shame about talking to the people who could potentially help them, for example family, educators and health professionals." The limited access that the youth have to contraceptives complicates their situation. The risk of HIV infection, STD's and teenage pregnancy is increased by the limitation of contraceptives, preventing the youth from being able to make a relatively safe choice.

No evidence in the reviewed literature suggested that youths have, as yet, been asked how and where they would prefer to access contraceptive services. The latest Children's Act (RSA 2006; Act No. 38,2005) clearly sets out the rights of the youth, yet there is no evidence of their opinions having being explored regarding the design of such a reproductive healthcare system. It is essential that the environment that these youths encounter when choosing to safeguard themselves against HIV and pregnancy is supportive of their choice (MacPhail et al. 2007:18). In addition, the National Patients Rights Charter (RSA 1996c:N.P) states that every patient has the right to participate in reproductive health care decision-making, in respect of "the right to participate in the development of health policies and in decision-making on matters affecting one's health" (RSA 1996c:1).

## **2.4 Conceptual framework**

A conceptual framework consists of the description of the phenomena of interest in terms of abstract, though related, constructs (Burns & Grove 2007:534). Findings from the literature review guided the choice of theoretical approach used in the current study. The conceptual framework which was developed to direct the planning and execution of the investigation was based upon the theories of nursing of Virginia Henderson, who related issues of personal health to the individual ability to function independently (George 2002:89). The PI adopted such a view, as the population under review faces numerous challenges in functioning independently with regards to determining their reproductive health. Corresponding with the nursing theories of Henderson (George 2002:93–95), the study was aimed at exploring current reproductive healthcare provision to South African youths, in order to identify those problems and recommendations for change to do with reproductive health education and the accessibility of contraception. George (2002: 89) noted Henderson's view on the responsibility of nurses for identifying problems, in which she/he continuously validated their function by improving the applied methods in order to measure the

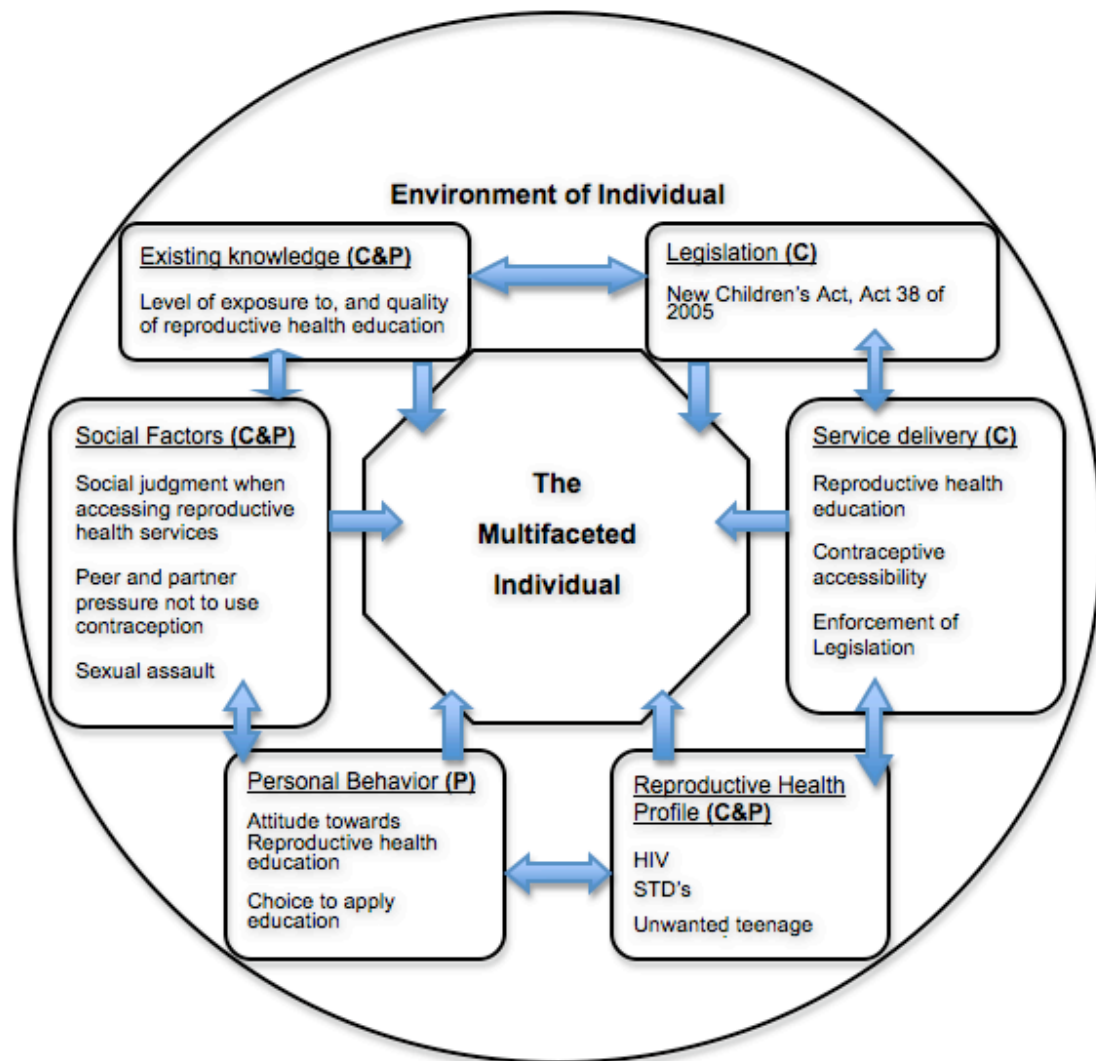
effect of nursing care. The PI formulated recommendations, underpinned by the empirical evidence, to address the problems identified, as inspired by Henderson (George 2002:89), with reference to reproductive health education during the early youth, age 13 to 18.

As discussed in this chapter, in line with the Children's Act the youth of South Africa have the right to choose the state of their own reproductive health. It is essential for the nurse, as a provider of reproductive healthcare, to view each youth as an individual (as suggested by Henderson) in their pursuit of reproductive health. The findings from the literature review suggest that, when considering the pursuit of reproductive health, many different contextual and personal factors can influence the reproductive health state of each multifaceted individual, which, in the case of the study, consists of the South African youth. Individually and collectively, such factors can determine the individual reproductive health status, as demonstrated in Figure 1.

The applied conceptual framework guided the research in exploring the multifaceted individual within a complex environment of contextual and personal factors influencing the individual's opportunities for and outcomes of reproductive health. The investigation of such factors and their effects on the reproductive health of the individual was based on the views of Henderson, namely on approaching each youth as an individual, with independent functioning. Figure 1 shows the multifaceted individual in an environment consisting of dynamic contextual and personal factors. Such factors, in addition to impacting on the individual, are also interrelated and influence one another.



**Figure 1: Influences on the reproductive health of the multifaceted individual**



*Legend: C = contextual factors*

*P = personal factors*

## 2.5 Conclusion

Chapter 2 presents the findings from the literature review, providing an overview of the contextual and personal factors influencing the reproductive health of South African youth. The reproductive healthcare service delivery system was reported to have expanded significantly since the apartheid era, providing contraceptive means to all South Africans. When considering the latest legislation, assuring the

reproductive rights of South African youths by means of service delivery still awaits adequate implementation. The statistical evidence of both HIV infection and unwanted teenage pregnancies among youths is a strong indication of the inadequate availability of, and access to, reproductive health education and contraceptive means.

As shown, the situation of high HIV infection and unwanted teenage pregnancies not only face the South African youth, but also the healthcare providers, who cannot ignore the responsibility of facilitating efficient change. Enabling youth to make good reproductive health choices by accessing services and the assistance of caring adults requires a change in the mindset of reproductive healthcare providers (Richter et al. 2006:2). Such enablement of youth is shown not to be the case in public health clinics, in relation to which there is evidence of youths stating that they did not access contraceptives due to fear of nurses ridiculing them (IRIN 2007:2).

The latest Children's Act (RSA 2006; Act No. 38,2005) clearly stipulates the reproductive health rights of youth as young as 12 years (Han & Bennish 2009:3). Healthcare providers have not only to fulfil the contraceptive needs, but also, equally, the reproductive healthcare needs, of patients (DoH 2001:5). It is with such a challenge as that of having to initiate much-needed change that our responsibilities toward our patients lie. According to Han and Bennish (2009:9), a closer collaboration between the DoH, the DoE, and the Department of Social Development (under whose jurisdiction the Children's Act falls) should occur in order build on existing programs such as the DoE Life Orientation curriculum and the DoH School Health Policy. This would support more effective condom education and access. The onus lies not only on one of the service-providing sectors, but on all involved. Keeping in mind the population requiring to be served, the emphasis must be on their specific needs in relation to accessing reproductive health.

Mfono (1998:11) argues that a raised incidence of HIV infection, teenage pregnancies, STDs and abortions results from failing to help youth cope with their sexuality. Bearing in mind the statistics, to which attention is drawn in this chapter, on HIV prevalence and the increase in the number of unwanted teenage pregnancies, it is arguable that the reproductive health service delivery system is currently failing most of our youth.

The full and efficient implementation of the latest Children's Act might not be possible within the ambit of the current system. The service-providing sectors are left with no choice but to collaborate in making such implementation a possibility by integrating and responding to the voices and needs of the youth. The literature reviewed revealed no studies exploring the needs of youths in the planning and designing of service delivery points aimed at providing them with appropriate and accessible reproductive health education and contraceptive means. Research into those personal and contextual factors that influence the accessibility and uptake of reproductive health education during the early youth is therefore urgently required. Contextually appropriate recommendations towards the improvement of reproductive health education for such youths are also of key importance.

The research methodology applied in the study will be discussed in Chapter 3.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

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#### **3.1 Introduction**

Research methodology is defined as the methods, techniques and procedures that are used for implementing the research design, as well as the underlying principles and assumptions that justify their use (Babbie, Mouton, Vorster & Prozesky 2006:647). The research methodology refers to a pre-defined research plan relating to the context within which the research should be conducted. Chapter 3 provides a detailed description of the methodology applied in the study.

#### **3.2 Research question**

The study was initiated by the formulation of a research question, which is defined as an interrogative statement focusing on the nature of the variables and their relationship to one another (Burns & Grove 2007:553). The question explored in the study was: What are the personal and contextual factors which influence the accessibility and uptake of reproductive health education during early youth (age 13 to 18), according to 18 to 19 year old Further Education and Training (FET) college students within the Cape Metropolitan area?

##### **3.2.1 Operational rationale**

The study purposively focused on the time period of ages 13 to 18 years, which account for the early youth and the general high school period. Furthermore, the experiences of participants during their primary school years were excluded in order to minimize potential recall bias.

For the purpose of the study, contextual factors were taken to include multiple influences, such as the attitudes of healthcare providers, peer dynamics, level of reproductive health education, accessibility and comprehensiveness of information, as well as the accessibility of contraceptives. Personal factors considered during the study included the choice of whether or not to use the available reproductive health information when making reproductive health decisions, negative or positive

influence by peers and partners, a preferential access point for contraceptives, and the age of first sexual intercourse.

The study did not investigate the issue of the female's right to choose TOP. Although TOP is recognised as an integral part of the reproductive healthcare system, WHO does not include TOP as a specific measure of prevention in their definition of reproductive health, which is defined as: "...a state of physical, mental, and social well-being in all matters relating to the reproductive system at all stages of life. Reproductive health implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when, and how often to do so. Implicit in this is the right of men and women to be informed and to have access to safe, effective, affordable, and acceptable methods of family planning of their choice, and the right to appropriate health-care services that enable women to safely go through pregnancy and childbirth" (Progress 2005;45). Accordingly, as the study was based on the WHO definition of reproductive health, and in order to prevent potential recall stress experienced by the 18 to 19 year old participants, TOP was not included as part of the study. Instead, the study concentrated specifically on the issues surrounding accessibility to, and the uptake of, reproductive health education, including contraception.

### **3.3 Research aim**

The aim of the study was to investigate the personal and contextual factors, which influenced the accessibility and uptake of reproductive health education during early youth (age 13 to 18), according to the experiences of 18 to 19 year old FET college students. The study also aimed to identify contextually appropriate recommendations, as identified by these students, toward improved reproductive health education and contraceptive accessibility for such youths.

### **3.4 Research objectives**

Specific objectives were formulated to address the research question. Study objectives are clear, concise and declarative statements, which are formulated to direct the PI in identifying variables and the relationship between them (Burns & Grove 2007:553).

The objectives of the study were to:

- (a) Identify those personal factors which impede or promote the uptake of reproductive health education.
- (b) Identify the contextual factors which impede or promote the uptake of reproductive health education.
- (c) Determine the perceived prerequisites of an accessible reproductive health service, meeting the needs of early youth.
- (d) Identify recommendations toward improved provision and uptake of reproductive health education during early youth.

### **3.5 Research methodology**

The research methodology applied during this study will be discussed in the following subsections; research approach and design, population and sampling, data collection tool, pilot study, validity and reliability, data collection, data analysis and ethical considerations

#### **3.5.1 Research approach and design**

A research design is a plan or blueprint of how one intends to conduct research (Mouton 2006:55). The design also includes the process that the PI follows in operationalising the study. Rubin and Babbie (2001:107) state that a research design: "...refers to all the decisions we make in planning the study – decisions not only about what overall type or design to use, but also about sampling, sources and procedures for collecting data, measurement issues and data analysis plans".

A descriptive, non-experimental, research design was employed with primarily a quantitative approach. Descriptive research is used to examine real-life situations in order to determine and describe the factors influencing those situations (Burns & Grove 2007: 24), In keeping with the descriptive design the variables were neither influenced nor manipulated (Burns & Grove 2007:240). The aim of such a study is to identify problems in current practice (Burns & Grove 2007:240). The design also supported the study's conceptual framework, as discussed in section 2.4, by means of considering the complexity of influences within the natural environment of, and their impact on, the multifaceted individual. The employment of a descriptive design enabled the PI to investigate the real-life perspectives and experiences of youths in

order to identify naturally occurring personal and contextual factors that influence their reproductive health education.

## **3.6 Population and sampling**

### **3.6.1 Study population**

A study population includes all persons who match the sampling criteria for inclusion in a study (Burns & Grove 2007:324). The study population, for the purpose of the study, consisted of students from the Northlink FET College within the Cape Town Metropole. The College was selected for its heterogeneous student population, originating from diverse socioeconomic and cultural backgrounds.

The Northlink FET College comprised eight campuses. The PI was granted permission by the college management to sample from five sites where the study would not interfere with the academic activities or examinations. The campus sites included those in Belhar, Belville, Parow, Protea and Tygerberg.

#### **3.6.1.1 Specific sampling criteria**

The study sampled those students who matched the following criteria:

- enrolment at the Northlink FET College;
- within the age group of 18 to 19 years; and
- having attended a South African high school from 13 to 18 years of age.

### **3.6.2 Study sample**

A study sample is a subset of participants selected from the study population for purposes of the research (Burns & Grove 2007:495). The study used a random sampling technique for selecting the participants. Using random sampling, each student of 18 or 19 years of age theoretically stood an equal chance of being selected for the sample population (De Vos et al. 2007:200).

The study sample was randomly selected by means of the following approach:

1. The PI arranged appointments with Northlink FET College campus managers for sampling.
2. Research days were selected that were suitable to both the campus management, as well as the PI, with the PI having no prior knowledge of specific class times, schedules or student attendance.
3. Actual class time availability for research purposes was only determined on the arrival of the PI, at which time the campus manager selected the classes with the highest potential of students in the required age group.
4. Access to classes and students was determined by Campus Liaison, in the absence of influence from the PI.
5. The inclusion of any particular participant was only determined by matching the student with the inclusion criteria, and by the participant being in class at the time of the arrival of the PI.

From the five campus sites of the Northlink FET College that were included in the study, a total of 1 373 students was found to match the inclusion criteria, of whom 270 (20%) were sampled, using a random approach. According to De Vos et al. (2007:195) a sample of 10% should be proficient for controlling sample errors. In consultation with a statistician, Prof. D. Nel of Stellenbosch University, it was established that, for the purpose of the study, a sample of 20% would be sufficient to control for sampling errors. Accordingly, a simple random sample of 270 (20%) was drawn from the study population (N=1 373).

### **3.7 Data collection tool**

Descriptive studies often make use of questionnaires to collect a broad spectrum of information from participants (Burns & Grove 2007:382). Accordingly, the study made use of a self-completion survey-style questionnaire for data collection (Appendix A). As discussed in sections 3.9, specific steps were taken to ensure the reliability and validity of the data collected. The development of the questions was based on the findings from the literature review. The questionnaire was modified in response to suggestions offered by Dr F. Marais, the study supervisor and nursing expert in the field, in regards to simplifying the questions and structure of the



questionnaire. Subsequently, the questionnaire was reviewed by Prof. D. Nel, a statistician at Stellenbosch University, to ensure that the data yielded would be appropriate for data analysis. The questionnaire was piloted as described in section 3.8. No subsequent changes were required after the evaluation and analysis of the data collected during the pilot study.

During the development of the questionnaire, careful attention was given to meeting the research objectives stated in section 3.4. The questionnaire comprised of mainly closed-ended questions, requiring the study participants to comment retrospectively about their early youth, from the age of 13 to 18 years. The questionnaire also contained one open-ended question, enabling participants to add further information and to offer any comments or recommendations. The questionnaire was provided in English only, since that was found to be the main medium of instruction at Northlink FET College.

The questionnaire investigated the following key domains:

- **The demographic profile of the participants**

Information was gathered about the age, gender and race of the participants. Some questions enquired about the level of school education and the age of their first enrolment at the Northlink FET College.

- **The sexual intercourse experiences of the participants**

The participants were asked about their sexual intercourse experiences, including the age at which they first had intercourse and whether such intercourse had been voluntary.

- **The commencement with, and type of reproductive health education received by, the participants**

Several questions explored the commencement and type of reproductive health education received by the participants. Other questions related to their access to, and the factors influencing their uptake of, such education, the topics of interest not addressed during their education, and the preferred source for, and access to, reproductive health education during their early youth and general high school years.

The perceived standard of the reproductive health education received by the participants was determined. They were asked to indicate whether such education influenced their decision-making regarding their reproductive health.

- **Contraceptive measures relating to the participants**

The questions in this domain explored several issues concerning contraception, including: education, access points, factors influencing accessibility and uptake, the types of contraceptive measures used, and the preferred source for, and access to, contraceptives during their early youth.

- **Open-ended question**

The final question was open-ended, giving the participants the opportunity to offer any further information, suggestions, and recommendations concerning the domains covered by, and the questions included in, the questionnaire.

### **3.8 Pilot study**

According to Burns and Grove (2007:38), pilot studies are conducted in order to refine a particular research methodology, as well as the steps in the research process. In this study, a pilot study was completed prior to the main study in order to test both the research approach and the instrument, to identify discrepancies, and to refine the overall methodology, including sampling, the instrument, and method of data analysis. Thirty participants, constituting 11% of the study sample (n=270), were used for the pilot study. The participants were found within the study population of one of the Northlink FET College campuses.

The findings from the pilot study confirmed the clarity, content, and ease of the administration and completion of the data collection instrument. The study revealed a need for simpler, as well as for some additional explanatory, information about the study. The appropriate adjustments were made to the accompanying study information, but no changes were required in the actual questionnaire. The data yielded from the pilot study were analysed by a statistician, Prof. D. Nel of Stellenbosch University, who confirmed the validity of the data collection instrument.

The pilot study participants did not form part of the study sample, and the results of the pilot study were excluded from the final data analysis of the study.

### **3.9 Validity and reliability**

The validity of an instrument is the determined degree to which the instrument measures what it is designed to measure (Burns & Grove 2007:5). Face validity is the extent to which the instrument appears to be valid to a participant in the study (De Vos et al. 2007:161). The instrument, namely the self-completion questionnaire, was designed to appear to the study participants as a professional instrument and a relevant measure of the attributes under consideration. The questionnaire was simplified in layout and subjected to a technical edit under the guidance of Dr F. Marais, the study supervisor. Subsequently, a pilot study was completed to determine the face validity of the questionnaire, after which no changes were required.

The content validity of an instrument refers to the representativeness of all variables measured in the study (De Vos et al. 2007:161). The level of validity is judged by experts in the relevant field of research. The instrument used in the current study was subjected to such scrutiny. The questionnaire was based on findings from the literature review and modified in response to evaluative suggestions offered by Dr F. Marais, the study supervisor, who is a nursing expert in the field. Subsequently, the questionnaire was reviewed by Prof. D. Nel, a statistician at Stellenbosch University, in order to ensure that the data yielded would suit the data analysis to which it would be subjected.

Reliability is seen as the consistency with which an instrument measures the same variable with each application thereof (De Vos et al. 2007:163). Reliability was enhanced further by means of the pilot study to ensure the complete and constant capture of the required data, and by means of consultation with Dr F Marais, a nursing expert in the field. Furthermore, a statistician evaluated and confirmed the statistical feasibility of the questionnaire and the method of analysis, based on the pilot study data.

The PI undertook all sampling and supervised the data collection. All participants were approached in the same way. The research was explained, and questions were answered, by the PI, who did not deviate in content from one group to the next. The sampling was undertaken randomly, without influence of the PI, thus increasing the validity of the study (Burns and Grove 2007:331).

As defined by Burns and Grove (2007:554), rigor is seen to consist of excellence in research; attained through the use of discipline, scrupulous adherence to detail, and

strict accuracy. As described in this chapter, certain aspects of the research were emphasised in order to attain the necessary rigor. The PI, with the help of an expert in the field of nursing research, devised a research design to best suit the context of the current study.

### **3.10 Data collection**

Data collection is the identification of subjects and the precise, systematic gathering of information relevant to the research purpose or the specific objectives, questions, or hypotheses of a study (Burns & Grove 2007:536). The PI undertook data collection between 1 to 5 hours per day per campus, depending on the students' study and exam times. After random sampling, the PI again informed the participants of the aim of the study, as well as of its voluntary, anonymous and confidential nature. The PI answered the participants' questions regarding the study. Following the written completion of the Consent Form (Appendix D), the participants were issued with the study questionnaire independently of the Consent Form. The participants were asked to complete the questionnaire in privacy, while seated at their desks. They were given as much time as they needed to complete the questionnaire. The participants, on average, took 20 minutes to complete the questionnaire, during which time the PI remained with the participants to offer whatever clarification and guidance were requested. The PI collected the completed questionnaires which then were stored securely at the workplace of the PI who remained the sole person with access to the raw data. The data collection across the five participating sites was completed over a six-week period (from July to August 2009).

#### **3.10.1 Response rate**

In all, 277 participants (excluding the pilot study of n=30) were provided with a Participant Information Leaflet and Consent Form (Appendix D), which three declined to complete, effectively eliminating them from participating in the study. The reasons for their decline were not established, due to such decline taking place under lecture-room conditions. A total of 274 questionnaires were completed, of which four were excluded from the study, as the respective participants did not fit the specified criteria. Of the four, two were incomplete, with the other two being discarded when the participants disclosed their age to be 17 years, despite the fact that they were

prewarned of the inclusion criterion of participants being aged 18 or 19 years old. Consequently, the final study sample comprised 270, representing a response rate of 97.5%.

### **3.11 Data analysis**

Data analysis is the technique used to reduce, organise and give meaning to data (Burns & Grove 2007: 536). The quantitative data yielded from the self-completion questionnaire were captured electronically by the PI, using Microsoft Excel (Office 2008).

Complete and accurate data entry was assured by checking and rechecking the correct entry of data by comparing the completed questionnaires with the electronic dataset. Following the completion of the data entry, a random sample of 30 (11%) was verified and validated by the PI. Subsequently, the data were analysed statistically using Statistica Version 8.1 software, with the assistance of a statistician, Prof. D. Nel of Stellenbosch University. According to Mouton (2006:108), “the aim of analysis is to understand the various constitutive elements of one’s data through an inspection of the relationships between concepts, constructs or variables, and to see whether there are any patterns or trends that can be identified or isolated, or to establish themes in the data”.

The study was primarily descriptive in nature. Accordingly, the focus of the analysis was more on descriptive statistics, which included frequency tables, proportions, and measures of relationships. Nominal variables were compared (cross-tabulated) to other such variables by means of contingency tables. The maximum likelihood Chi-square ( $\chi^2$ ) test was used as a measure of the strength of the relationship between such variables.

As noted in Chapter 4, ANOVA (analysis of variance) was used in comparing certain of the continuous variables with the nominal variables. If the residuals were not normally distributed, the test was repeated non-parametrically with either the Mann–Whitney test (for two categories) or the Kruskal–Wallis test (for more than two categories).

In all the statistical tests, a significance level of 5% was used, namely  $p$ -value  $p \leq 0.05$ , to determine the statistically significant relationships.

A thematic approach was used to analyse the qualitative data yielded in response to the open-ended question. During the interpretation of the data from this section, the PI searched for emerging themes and trends within all the responses, as defined by Burns and Grove (2007:540), in order to identify all the issues raised by the participants. Subsequently, in order to strengthen the investigation, the qualitative data, within the identified themes, was quantified based on the approach developed by Culp & Pilat (1998:3). Emerging response categories were identified by topical analysis and then alphabetically organized (Culp & Pilat 1998:1). The data obtained in this way could then be entered as quantitative data (number of suggestions in each category counted), and subjected to descriptive analysis.

The results and findings of the study will be presented in Chapter 4.

### **3.12 Ethical considerations**

The sensitivity of the topic under investigation was acknowledged and protected throughout the research process. The following specific considerations were safeguarded prior to, during and following the study:

- Confidentiality: The study, including all the relevant data collection, was conducted in the privacy of the participants. The questionnaires were anonymous, with no personal or study site identifying details being recorded. The questionnaires were completed under exam conditions.
- Written informed consent: The nature of the study, including its purpose and the intended data collection methods, was explained to the participants before the start of the study. The participants were free to choose whether they wished to consent to, or to decline participation in, the study, and were informed that they were free to withdraw from the study at any time. Written individual consent was obtained from each participant after they had received an explanation of the study purpose and methodology (Appendix D). The Consent Forms, as well as the questionnaires, were completed under examination conditions, with each person having access only to their own information. On completion, the forms and questionnaires were stored separately in a secure filing-cabinet at the office of the PI. Only the PI had access to the questionnaires (raw data) until the data were captured on the Excel data sheet.

- The PI ensured the autonomy of participants by adopting the following operational plan (Burns & Grove 2007:204):
  - Firstly, they were informed about the study.
  - Secondly, they were allowed to choose whether they wished to participate in the study.
  - Thirdly, they were informed that they were free to withdraw from the study at any time without being subjected to the imposition of any penalty.
- The participants in the study were made aware that the data gathered would be made public by means of presentations at pertinent meetings and conferences, publications about the study in relevant journals, and the distribution of a final research report. They were assured that such public information would represent a complete analysis of the data, and that no individual opinion or information would be traceable back to them.
- Ethical approval for the study was obtained from the Health Research Ethics Committee at the Faculty of Health Sciences, Stellenbosch University (Appendix B).
- Operational approval for the study was obtained from the Northlink FET College head, as well as from the individual college managers (Appendix C).

The PI acknowledged that including youths in the study was an ethically sensitive issue, resulting in her treatment of the issue as such throughout the study. The undertaking of the study was wholeheartedly supported by the Northlink FET College management. The campus management offered full cooperation of the campus psychological and counselling support service in the event of any participant experiencing distress by recalling certain stressful events during the research process. Each of the individual campus managers was informed about the research study, and contacted by the PI prior to sampling and data collection. The campus managers, as a request from the head office, informed the psychological and social support system on each of their own campuses of the study. However, no such incident of participant distress occurred during the study.

### **3.13 Conclusion**

Chapter 3 presented an in-depth account of the methodology used in the study. The methodology consisted of a descriptive, non-experimental, research design, with random sampling of 270 participants, constituting 20% of the study population. A pilot study was conducted to ensure the validity and reliability of the questionnaire used for data collection. After the written informed consent of the participants had been obtained, the study participants completed the questionnaire in privacy. The data from the completed questionnaires were captured electronically by means of Microsoft Excel, and validated for accuracy by the PI. The quantitative data were analysed with the use of the statistical programme, Statistica version 8.1, and the assistance of a statistician. The qualitative data yielded in response to the open-ended question were, first, analysed thematically and then quantified. The Chapter included a discussion of the key ethical issues taken into consideration prior to, during and following the study.

The study results will be presented and discussed in Chapter 4.



## CHAPTER 4

### DATA ANALYSIS, INTERPRETATION AND DISCUSSION

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#### 4.1 Introduction

Chapter 4 presents, interprets and discusses the results of the analysed study data. The study was primarily quantitative and descriptive in nature. Accordingly, the focus of the analysis was more on descriptive statistics, including frequency tables, proportions, and measures of relationships. In all the statistical tests, a significance level of 5% was used (with the  $p$  value being  $p \leq 0.05$ ), in order to determine the statistically significant relationships. A thematic approach was used to analyse the qualitative data yielded in response to the open-ended question (Burns and Grove 2007:540). The qualitative data, as made available within the identified themes, was quantified based on the approach developed by Culp and Pilat (1998:3), in order to strengthen the investigation.

#### 4.2 Presentation and discussion of the study findings

The results of the study will be presented, as well as discussed sequentially under the following sections: demographic data, sexual intercourse, reproductive health education, the influence of reproductive health education, contraception, and emerging themes.

Measures of relationships, using Chi-square ( $\chi^2$ ), Mann-Whitney U and Kruskal-Wallis tests were undertaken where applicable, as explained in section 3.11, and the results reported only when statistically significant ( $p \leq 0.05$ ). The category 'missing', as indicated in the Tables, tabulates the number of participants who did not answer the specific question.

##### 4.2.1 Demographic data

The information relating to the demographic distribution of the study sample in terms of age, sex, ethnicity, the province in which high school education was obtained, the

level of high school enrolment, and the age of first enrolment at Northlink FET College is summarised in Table 1.

The demographic data of the sample (N=270) show a relatively even distribution in age, and the distribution in sex reflects that of the student population at the FET college, as confirmed by the college management (Peterson 2009: N.P). The ethnic distribution of the sample was not comparable, with most of the participants (68.5%; n=183) being Coloured in race. The composition of the Cape Town Metropole consists of 51% Coloured people (Provincial Government of the Western Cape 2007:a), most of whom were economically compromised by the negative influences of apartheid. Northlink FET College is a government-subsidised institution, which makes studying at the institution much more affordable than at a private college. Such a phenomenon might explain why a majority of Coloured participants was present at the time of random sampling. As mentioned in the discussion of the study limitations, section 5.5, the municipal and transport strikes occurring in the time of data collection might have had an impact on the participants present at the time of sampling. The composition of the study sample does however reflect the ethnic composition of the Northlink FET College student population, as confirmed by the North Link Colledge management (Peterson 2009). As the participants were randomly selected, no bias within the selection process was noted.

Most of the participants (86.5%; n=230) completed at least Grade 10 within the mainstream high school system. The majority only registered with Northlink FET College after they turned 18 (66.2%; n=176).

**Table 1: Demographic data**

	<b>Female N= 167</b>	<b>Male N=101</b>	<b>Total (n) N=270</b>	<b>%</b>
<b>Sex</b>				
Female			167	62.3
Male			101	37.7
<i>Missing</i>			2	0.7
<b>Age</b>				
19 years	87	51	138	51.7
18 years	80	48	129	48.3
<i>Missing</i>			3	1.1
<b>Ethnicity</b>				
Coloured	118	65	183	68.5
Black	26	20	46	17.2
White	21	12	33	12.4
Mixed race	1	2	3	1.1
Asian	0	1	1	0.3
Indian	1	0	1	0.3
<i>Missing</i>			3	1.1
<b>Last Grade completed in High school</b>				
Grade 12	89	37	126	47.4
Grade 11	9	15	24	9
Grade 10	45	35	80	30.1
Grade 9	19	13	32	12
Grade 8	2	2	4	1.5
<i>Missing</i>			4	1.5
<b>Age enrolled at Northlink FET College</b>				
19	33	24	57	21.4
18	78	41	119	44.7
17	42	25	67	25.2
16	8	12	20	7.5
15	3	0	3	1.1
<i>Missing</i>			4	1.5

#### 4.2.2 Sexual intercourse

The questionnaire contained questions about the sexual intercourse experiences and habits of the participants. The responses to such questions are enumerated in Table 2, which shows that most of the study participants (74.1%; n=195) had engaged in sexual intercourse by the time that they completed the questionnaire (18 and 19 year old), with more than half of them being sexually active at the time (58.6%; n=116). The findings indicate that 78.2% (n=79) of the male participants and 69.5% (n=116) of the female participants have had sexual intercourse by the time of completing the questionnaire. A South African survey, which was conducted in 2003, found that 67% of 15 to 19 year old females (64% urban vs. 69% rural) were sexually active at the time of completing the questionnaire (RHRU 2003:34). It is, thus, apparent that the youth of South Africa have reproductive healthcare needs. This is of particular importance, especially with evidence suggesting that one in ten South African youths was HIV positive by 2004 (RHRU 2004:1). A third of young females in South Africa have been found to have had a baby before reaching the age of 20 (Richter et al. 2006:1). The need to enforce the reproductive health rights of the youth is further emphasised by 7 (3.7%) participants stating that they had no choice in their sexual début (meaning that their first sexual encounter was forced). A large section of the participants (29.6%, n=80) did not answer the question. The reason for this omission is unclear, but it might signify the sensitivity of the topic, masking a potentially much higher incidence of forced sexual début. According to a 2006 survey, the first sexual intercourse of 30% of girls in South Africa occurred under duress or threat of duress (IRIN 2007:1).

The data was cross-tabulated against sex, ethnicity and the level of high school education. A significantly higher proportion of females than male stated that they had not had sexual intercourse by the time of the study (29.7% vs. 18.6%;  $\chi^2$ ,  $p = 0.04$ ).

**Table 2: Sexual intercourse: age 13 to 18**

	<b>Female</b>	<b>Male</b>	<b>Total (n) N=270</b>	<b>%</b>
Participants who have had sexual intercourse	118	77	195	74.1
<i>Missing</i>			7	2.6
Sexually active youths at time of the study	73	43	116	58.6
<i>Missing</i>			72	26.7
Voluntary sexual début	108	75	183	96.3
Forced sexual début	6	1	7	3.7
<i>Missing</i>			80	29.6

In Table 3, the participants' age of sexual début is indicated. Most of the participants (60.5%; n=115) indicated that they chose to engage in sexual intercourse before completing Grade 10 (approximate age of 16), with some participants (3.7%; n=7) choosing to engage in such activity before the high school entry age of 13. The average age of first sexual intercourse for this study was 16 years of age. This correlates with another study among South African youth where the average age of first sexual intercourse was 17 years. Of those youths, 8% (n=11 904) made their sexual début before the age of 14 (RHRU 2003:8). In this study, 6.3% (n=12) had their first sexual intercourse before 14 years of age. The IRIN (2007:2) recommends that reproductive health education be provided in schools before the age of 14, in order that it might have reached the South African youth by the time that they first become sexually active. Such a requirement raises concerns regarding what the youth think of the reproductive health education which is currently available.

**Table 3: Age of sexual début**

<b>Age (years)</b>	<b>Female</b>	<b>Male</b>	<b>Total (n) N= 270</b>	<b>%</b>
19	4	1	5	2.6
18	20	9	29	15.3
17	32	9	41	21.6
16	32	26	58	30.5
15	16	16	32	16.8
14	7	6	13	6.8
13	2	3	5	2.6
12	0	4	4	2.1
11	0	1	1	0.5
10	0	2	2	1.1
<i>Missing</i>			80	29.6

#### **4.2.3 Reproductive health education**

Approximately a third (33.2%;n=77) of the study participants reported that they had received reproductive health education before the age of 13 years. Cross-tabulation against sex, race and education level revealed no statistical significance. Of those participants who reported having had sexual intercourse (74.1%, n=195), 80.5% (n=157) indicated that they had received reproductive health education before experiencing their first sexual intercourse. This indicate that a fifth of participants (19.5%, n=38) received no such education prior to their sexual début. As shown in Table 4, 2 participants reported receiving their first reproductive health education as early as 7 years of age, yet more than a third of participants (37.1%; n=86) were only exposed to reproductive health education after starting high school (age 14), much later than the indicated age of sexual début by some participants, as reflected in Table 3. Such a finding indicates that the current provision of reproductive health education still needs to be brought into line with the requirements of the latest Children's Act (Hassim et al. 2007:299, RSA 2006; Act No. 38,2005). The Act states that all South African youth have a right to reproductive health education by the time that they reach 12 years of age.

**Table 4: Age of first reproductive health education**

<b>Age (years)</b>	<b>Total (n) N=270</b>	<b>%</b>
19	1	0.4
18	1	0.4
17	5	2.2
16	20	8.6
15	30	12.9
14	29	12.5
13	69	29.7
12	41	17.7
11	9	3.8
10	20	8.6
9	5	2.2
7	2	0.8
<i>Missing</i>	38	14.1

The majority of participants (73%; n=197) received their reproductive health education at school, followed by public health clinics (11.1%, n=30). The findings indicate that the reproductive health education received by the participants was accessed mostly in the educational, rather than in the health, sector. The reproductive health education provided at schools, however, does not seem to be sufficient to meet the needs of the youth (as seen in Table 5).

Nearly 10% (9.6%; n=26) of the participants reported that several reproductive issues of personal concern were unanswered by their reproductive health instructors. Table 5 indicates the number of participants who perceived their reproductive health education to be inadequate in terms of issues related to: contraception (33.3%; n=86); other STDs (29%; n=75); sexual intercourse (25%; n=64) and HIV/AIDS (21%; n=54). The findings suggest that most of the participants perceived their reproductive health education to be inadequate for their needs, increasing their personal vulnerability.

When taking into account that 74.1% (n=195) of the participants had already engaged in sexual intercourse by the time of the study, the fact that 33.3% (n=86) of them still had unanswered questions about contraception (which could protect them against both HIV and teenage pregnancies) is a cause for concern. Such gaps in

reproductive health knowledge are also evident in another related South African study, reporting that 61% of HIV-positive and 73% of HIV-negative youth did not perceive themselves to be at risk of HIV infection. Such youths stated that they did not think it is necessary to protect themselves when engaging in sexual intercourse. Even when they engaged in high-risk sexual behaviour, they did not perceive themselves as being more vulnerable to HIV infection (RHRU 2003:72).

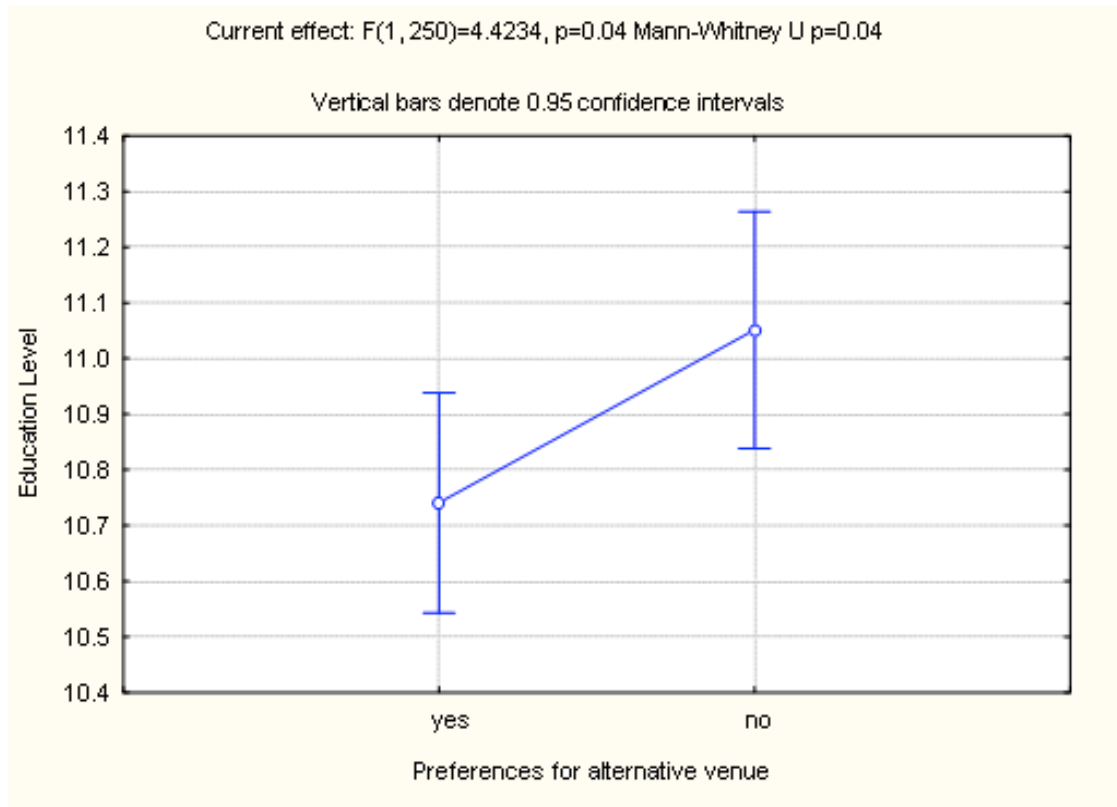
**Table 5: Reproductive health issues *not* answered during sex education: age 13 to 18**

<b>Issues</b>	<b>Total (n) N=270</b>	<b>%</b>
Contraception	86	33.3
<i>Missing</i>	12	4.4
Other STD's	75	29.0
<i>Missing</i>	11	4.1
Sexual intercourse	64	25.0
<i>Missing</i>	10	3.7
HIV/Aids	54	21.0
<i>Missing</i>	10	3.7

The relationship between the participants' level of school education and their expressed need to access reproductive health education from an alternative source than was accessible to them was investigated and proved statistically significant. The findings suggest that the higher the level of high school education attained, the less likely participants were in need of alternative reproductive health education (Mann-Whitney U,  $\rho = 0.04$ ); as shown in Figure 2. Such a finding raises two questions. Firstly, why did they perceive the education that they received during their early youth and high school-going years to be unsatisfactory? Secondly, why is the most effective reproductive health education only being presented in the later high school years? Based on the findings, the reproductive health education in schools seems not to be satisfying the needs of youth at the earlier ages when they require the information.



**Figure 2: Relationship between education level (grade) in high school and preference for alternate venue for reproductive health education.**



Legend: Education level is indicated in grades

The study participants were asked whether there were any factors which encouraged or motivated their uptake of the reproductive health education to which they were exposed during their younger and general high school-going years (age 13 to 18), Nearly 60% (58.5%,  $n=158$ ) indicated 'yes'. Table 6 shows which factors positively influenced reproductive health education. Of these participants, the majority (60.1%;  $n=95$ ) indicated that the positive attitude of the reproductive health educator resulted in a positive effect on their uptake of the information received. This was followed by: a good environment during education (42.4%;  $n=67$ ), easy access to education (40.5%;  $n=64$ ), and efficiency of the educator (27.2%;  $n=43$ ).

**Table 6: Factors motivating uptake of reproductive health education: age 13 to 18**

<b>Factors</b>	<b>Total (n) N = 158</b>	<b>%</b>
Positive attitude of educator	95	60.1
Good environment during education	67	42.4
Easy access to education	64	40.5
Efficiency of educator	43	27.2

Nearly 87.3% (n=138) of the participants reported a positive influence on reproductive health education due to a teacher with a positive attitude and efficiency as educator, while 69.6% (n=39) reported a negative influence due to a teacher with a negative attitude and inefficiency as educator (as indicated in Table 7). Since the main exposure to reproductive health education occurred within the school setting (73%; n=197) as reported in section 4.2.3, the issue of educator efficiency has to be considered. The capability and knowledge of schoolteachers as to the presentation of adequate and complete reproductive health education to youths comes into question. The reproductive health education received from teachers has been shown not to effectively convey the fundamental concepts regarding reproductive health (Richter et al. 2006:2).

From a predetermined list, the participants were asked to indicate any number of factors which negatively influenced their uptake of the reproductive health education received between the ages of 13 and 18 years. About a fifth (21%, n=56) indicated negative influences as shown in Table 7. The main influence cited by these participants was a negative attitude of the educator (55.4%, n=31), followed by the immediate environment (or circumstances) in which the reproductive health education took place (50%; n=28), and inefficiency of the educator (14.3%; n=8). Seven (12.5%) participants reported that they were declined access to reproductive health education between the ages of 13 and 18 years. These findings clearly indicate the need for a change in the service delivery of reproductive health education to South African youths. The IRIN (2007:2) recommends the introduction of reproductive health education in schools before the age of 14, in order to reach the South African youth before they become sexually active. This is in accordance to the primary health clinics, which are not able to cope with the need for this service. The

high workloads of healthcare providers, of whom some are ill trained to provide reproductive health education to youths, and staff shortages have been documented (DoH 2001:13). Currently, the main point of sexual healthcare and contraception access is by way of the public healthcare clinics, which are not currently meeting the needs of the youth (IRIN 2007: 2; Mfono 1998: 10)

**Table 7: Factors discouraging uptake of reproductive health education: age 13 to 18**

<b>Factors</b>	<b>Total (n) N = 56</b>	<b>%</b>
Negative attitude of the educator	31	55.4
Bad environment during education	28	50.0
Inefficiency of the educator	8	14.3
Declined access to education	7	12.5

The participants were asked whether they felt the need to have had access to reproductive health education from an alternative source. This question allowed more than one answer. Only 21% (n=56) of the participants felt that certain factors influenced their uptake of reproductive health education negatively, yet 51.0% (n=137) indicated that they would have preferred to access their reproductive health education from another source than that what was available to them during age 13 to 18. Increased reproductive health education within the schooling systems was requested by over half of the participants (56.3%, n=152) and again by nearly 20% (19.3%,n=52) in the open-ended question where they noted the inadequate quality of reproductive health education provided in schools. Some recommendations were made regarding the need for more intensive training, involving “talking openly” about issues concerning the youth. The participant responses in the open-ended section reveal the need for reproductive health education that is specifically suited to the youth.

Table 8 indicates from which source the participants would have preferred to receive their reproductive health education. The majority of participants (67.9%; n=93) indicate a peer educator as an alternative source. Taking into account the sensitivity of personal issues surrounding reproductive health during early youth, it is surprising that 61.3% (n=84) would have preferred to have received more reproductive health education in their own homes between the age of 13 and 18 years. This notion also

emerged from the data yielded from the open-ended question. Several participants (7.8%; n=21) mentioned that they required more education from their parents, noting that communication regarding sex and contraception should be open and addressed more regularly at home and by parents. The reason that the participants might have felt that the reproductive health education that they received at home was insufficient might be due to the fact that their parents lack sufficient knowledge regarding reproductive health. Parental lack of trust in the efficacy of condoms, the lack of skills in condom application, and false beliefs regarding HIV transmission, have been reported (Han & Bennish 2009:7). These findings underscore the need for parents to receive appropriate reproductive health education applicable and beneficial to the youth.

An option, which is currently not available at high school, is the provision of reproductive health education by a nurse based at the school. Of the participants, 37.2% (n=51) indicated that they would have preferred to receive reproductive health education from a professional healthcare provider or nurse at either a clinic (20.4%; n=28) or at school (16.8%; n=23). The request for receiving reproductive health education from professional healthcare workers, at either clinic or school setting, was reinforced by several participants (7%, n=19) in the data yielded from the open-ended question. Interestingly, this issue was covered in previous sections of the questionnaire, yet some of the participants spontaneously repeated the recommendation. The system where they can reach such a healthcare professional within the school setting does not exist, but the possibility of it evidently appeals to the participants. In the close-ended question section, receiving reproductive health education through an educative play was recommended by some participants (8.8%, n=12). Such a low recommendation rate might indicate the ineffectiveness of these programs. "While a general belief holds that peer education programs are a useful strategy and are cost-effective, limited evidence supports this (Adamchak 2006:7)

**Table 8: Potential alternative sources of reproductive health education: age 13 to 18**

<b>Alternative sources</b>	<b>Total (n) N = 137</b>	<b>%</b>
From a youth/peer educator	93	67.9
At home	84	61.3
At school from a teacher	36	26.3
At a public health clinic	28	20.4
At school from a nurse	23	16.8
From an educative play	12	8.8

#### **4.2.4 The influence of reproductive health education**

Participants were asked whether the reproductive health education received between the ages of 13 and 18 years influenced their decision as to whether to practise safer sexual intercourse at the time. They were given the options to select: always, mostly, sometimes or never.

Out of those who received reproductive health education during their younger youth (85.2%; n=230), only half (50.4%, n=116) indicated that such education always influenced their choice to practise safer sex. Evidence of the intermittent influence of reproductive health education on sexual activity between the ages of 13 and 18 was that 21.3% (n=49) selected “mostly”, and 27.4% (n=63) “sometimes”. Sixteen percent (n=37) indicated that the reproductive health education received did not influence their decision to practise safer sexual intercourse at the time. These findings strengthen the argument regarding the questionable impact of reproductive health education provided to the youth. Less than two-thirds of the participants (65.2%; n=150) disclosed that the HIV education that they had received influenced their behaviour, causing them to make safer sexual choices. Only 43% (n=99) of the participants said that they practised safer sex during their youth, due to the contraceptive education that they received during their early youth. Some of the participants might have had misconceptions regarding using condoms toward HIV prevention, pregnancy prevention or abstinence from sexual intercourse as a preventative measure. It is, thus, uncertain whether the participants really have a grasp of issues relating to contraception.

#### 4.2.5 Contraception

Of all sexually experienced study participants, only 55.2% (n=149) reported that they used contraception during their early youth and high school-going years (between the ages of 13 and 18). Such information was cross-tabulated with sex and race (all the study participants fell within the same age group). Most of the male participants (69.2%; n=65) indicated that they used condoms. Among the females there were an equal distribution of those who used condoms and those who did not. A significantly higher percentage of males than females indicated condom use during their early youth and high school-going years (69.2% vs. 54.9%;  $\chi^2$ ,  $p = 0.025$ ). No significant difference in condom use was found to occur across ethnicity. Only 51% (n=76) of the participants said that they used contraception every time that they had sexual intercourse from the age of 13 to 18 years. Even those participants who indicated that all their questions regarding contraception were answered (resulting in them having knowledge of the benefits and protective value of contraception use), only 64.8% (n=105) always used contraception. If the youth are well informed about contraceptive use, but do not apply such knowledge in practice, access to contraceptives must be considered as the potential cause of their failing to use contraceptives. The underlying causes for failure in contraceptive used need further investigation.

The participants indicated their individual reasons for contraceptive use, as summarised in Table 9. Some impact of reproductive health education was apparent, since the main reported reason for using contraceptives was the prevention of pregnancy (77.2%; n=115), followed by the prevention of infection (63.8%; n=95). The challenge posed by HIV is the major problem that South African youth have to face today. "South Africa has the highest number of persons living with HIV in the world" (Han et al. 2009:1). The education of the youth on this issue, and persuading them to use condoms to prevent HIV infection forms part of one of the main reproductive rights that is entrenched in the latest Children's Act (RSA 2006; Act No. 38,2005).

The addition of 'health reasons' for contraceptive use was reported spontaneously by female participants (5.4%; n=8). Such reasons referred to a tendency to bleed excessively, as well as for dermatological purposes. Additionally, 3 of the participants noted that they merely wanted to experiment using condoms.

**Table 9: Reasons for contraceptive usage: age 13 to 18**

<b>Reason</b>	<b>Total (n) N = 149</b>	<b>%</b>
Prevention of pregnancy	115	77.2
Prevention of infection (STDs/HIV)	95	63.8
Influence of reproductive health education	94	63.1
Partner requested contraception	65	43.6
Health reasons	8	5.4
Experimental reasons	3	2

The participants were questioned about the type of contraceptive method that they preferred from the age of 13 to 18. As indicated in Table 10, nearly two thirds (65.1%; n=97) of the participants indicated condoms as their main choice of contraception, with 34.9% (n=52) using a combination of condoms and hormonal contraception. Taking into consideration the reported high rates of HIV infection, it is disconcerting that the reproductive health education that is currently available to the youth appears to have limited effect on the decisions made by the youth regarding their reproductive health (HIV and STD prevention). In another study, only 52% of participants reported having had sexual intercourse said that they had used a condom during their last sexual encounter (RHRU 2003:9). The challenge remains to get all sexually active youths to use contraception every time that they have sex.

**Table 10: Types of contraception preferred for personal use: age 13 to 18**

<b>Type preferred</b>	<b>Total (n) N = 149</b>	<b>%</b>
Condom	97	65.1
The Pill + condom combination	39	26.2
The Pill	30	20.1
2/3-month injection	17	11.4
The injection + condom combination	13	8.7
Abstinence	8	5.4
The morning-after pill	3	2

All the participants were asked whether the contraceptives listed in Table 10 were freely accessible to them during age 13 to 18. More than a fifth (21.9%; n=59) reported that their access had been hindered. However, some of the participants might have misinterpreted the word “freely” (interpreting it to mean ‘without cost’, rather than ‘unhindered’), because from a predetermined list, 81 (30%) instead of the expected 59 (21.9%), indicated factors which hindered their access to contraceptives between the ages of 13 to 18; as tabulated in Table 11. They showed prevention of contraceptive access to be by partner (19.8%; n=16), peer pressure (18.5%; n=15) and social pressure (18.5%; n=15) were given as the main negative influences on access to contraceptives. Even when the healthcare service was found to provide an adequate choice of contraceptive methods, the service provision was found to be inadequate in meeting the needs of the youth. Access to free condoms in public health clinics is hindered by the hostile and judgmental treatment of youths by the healthcare providers, with the clinics also usually being closed after school hours (Han & Bennish 2009:2).

**Table 11: Reasons for not accessing contraception: age 13 to 18**

<b>Reason</b>	<b>Total (n) N =270</b>	<b>%</b>
Partner preventing	16	19.8
Peer pressure	15	18.5
Social pressure	15	18.5
Community judgment	11	13.6
Parental judgment	11	13.6
High price of condoms	9	11.1
Attitude of nursing staff	4	4.9

As found by other South African studies, some parents, friends and partners of the participants are not sufficiently well informed to persuade them to use contraceptive devices. In a seminal South African study concerning contraceptive use among youth, it was also noted that youths were hesitant to attend public health clinics to obtain contraceptives for fear of ridicule or chastisement by their parents, caregivers or community (Mfono 1998: 10). In this study the participants disclosed that, if they did eventually access such services, it was only after they had engaged in many sexual encounters (Mfono 1998:10). A further South African study identified the negative attitudes of nurses as acting as major barriers to the accessing of



contraception by the youth. They perceived the nurses to be highly judgmental and unhelpful, equating their treatment of them with harassment (IRIN 2007:2).

Even when the contraceptive means necessary were accessible to the participants concerned, they were not always used. The participants were asked to indicate from a predefined list of factors what might have influenced their choice not to use contraception during their youth. They were given the option to add factors, all of which are included in Table 12. This question allowed the selection of more than one answer. The main reported reason was that the use of condoms reduced the sexual sensation (33.7%; n=68), followed by the limited access to contraception (33.2%; n=67) and being uninformed about the advantages of contraception use (30.2%; n=61).

**Table 12: Reasons for not using contraception: age 13 to 18**

<b>Reason</b>	<b>Total (n)</b> <b>N = 270</b>	<b>%</b>
Reduction of sexual sensation by condoms	68	33.7
Limited access to contraception	67	33.2
Lack of information about advantages of contraceptive use	61	30.2
Peer pressure	32	15.8
Partner pressure	30	14.9
Use of contraception regarded as unhealthy to use	3	1.5
<i>Missing</i>	68	

Of those who have had sexual intercourse (74.1%; n=195), 149 (76.4%) indicated contraceptive use. Those participants were asked to indicate where they had accessed contraceptives most regularly between ages 13 to 18 years. They were allowed to choose more than one answer, Table 13 shows the responses. Most of the participants accessed contraceptives by means of contacting healthcare professionals at a public health clinic (64.4%; n=96), whereas 36.2% (n=54) relied on their sexual partner to access and supply the contraceptives for them. Further important reported sources for access to contraceptives at the age of 13 to 18 were retail shops (32.2%, n=48) and friends (29.5%, n=44). According to Richter et al. (2006:2), "One of the greatest barriers to assisting young people is their fear and

shame about talking to the people who could potentially help them, for example family, educators and health professionals.” Access to free condoms in public health clinics is hindered by the hostile and judgmental treatment of youths by the healthcare providers, with the clinics also usually being closed after school hours (Han & Bennish 2009:2). The limited access that the youth have to contraceptives complicates their situation.

**Table 13: Sites of most regular access to contraception: age 13 to 18**

<b>Site</b>	<b>Total (n) N = 149</b>	<b>%</b>
Public health clinic	96	64.4
Sexual partner	54	36.2
Retail shops	48	32.2
Friend	44	29.5
Public toilets	13	8.7
Parents	2	1.3

Participants were given the opportunity to choose or suggest a suitable point for access to contraceptives that they would have liked to have make use of during their youth. The participants were allowed to select more than one option, as indicated in Table 14. Overall, the vast majority (94.4%; n=255) indicated their need for more regular access to contraception from a healthcare professional during their youth; from public health clinics (61.5%; n=166) or from a nurse at school (33%; n=89). Nine (3.3%) participants proposed their own home as a suitable point for accessing condoms. Although requesting public health care clinics as a source, an inquiry, which was undertaken by the DoH, showed that some contraceptive service providers provided adequate service delivery, though many others were inefficient. The reasons for such inefficiency included an inability to meet the needs of service users, inadequate reproductive healthcare training for service providers, the lack of standardised national guidelines for contraceptive service delivery, as well as a lack of facilitative supervision, infrastructure, equipment and supplies (DoH 2001:13). This demonstrates the urgency of equipping health care professionals with the required knowledge and skills effectively to serve the youth in reproductive health education

**Table 14: Recommended sites for access to contraception: age 13 to 18**

<b>Site</b>	<b>Total (n) N = 270</b>	<b>%</b>
Public health clinic	166	61.5
Nurse at school	89	33.0
School class	51	18.9
Home	9	3.3
Retail shop	9	3.3
Private clinic	3	1.1
Public toilets	2	0.7

#### **4.2.6 Emerging themes (Q36)**

The questionnaire ended with an open-ended question, offering participants the opportunity to add further information and to offer any comments or recommendations regarding the topic under investigation. During the interpretation of the data yielded in response to the question, the PI searched for emerging themes and trends, using a thematic approach (Burns & Grove 2007:540) as explained in section 3.11. Subsequently, the qualitative data within the identified themes were quantified, using the approach suggested by Culp and Pilat (1998:3) in order to strengthen the investigation.

Several themes emerged from the data. They were very insightful and offered an alternate point of view of the youth of South Africa regarding reproductive health.

##### **4.2.6.1 Increased reproductive health education**

Increased reproductive health education within the schooling system was requested by 52 (19.3%) of the participants. They mentioned the limited amount of time and the low quality of reproductive health education that they had received while at school. Some suggestions were made regarding the need for more intensive training, and the ability to “talk openly” about issues experienced and raised by the youth. They further requested a subject period to be dedicated to reproductive health education.

As alluded to in sections 4.2.3 (Table 8) and 4.2.5 (Tables 13 and 14), the need for parental support as a source of reproductive health education was requested. Several of the participants (7.7%; n=21) mentioned their wanting more education from such a source, noting that communication regarding sex and contraception should be open and addressed more regularly at home and by parents. However, the reproductive health education received from teachers and parents has, so far, been shown to be ineffective in establishing fundamental concepts regarding reproductive health (Richter et al. 2006:2). Not only the onset and frequency of reproductive health education, but also the quality of information which is imparted to youths, has proved insufficient. Parental disbelief in the efficacy of condoms, the lack of skills in donning condoms, and incorrect beliefs regarding HIV transmission have been reported (Han & Bennish 2009:7).

The participants again raised the issue of accessing reproductive health information from a healthcare professional, an issue which had already been raised in the close-ended questions. Some (7%; n=19) of the participants requested that more information regarding reproductive health be available from, and accessible at, the public health clinics.

#### **4.2.6.2 Condoms**

The use of condoms by youths was favoured by 10.4% (n=28) of the participants. One suggested using a “breadpakkie” (the plastic covering of a bread loaf) if a condom was unavailable. Higher quality condoms than Choice Condoms were requested by 2.6% (n=7) of the participants. They mentioned cases of failure of condoms during intercourse, as well as the need to use more than one at a time to ensure safety. Some of these participants 1.9% (n=5) associated the incidence of the failure of condoms with the high rate of teenage pregnancies. They mentioned condom breakage during intercourse, as well as the need to use more than one at a time to ensure their safety. As discussed, the access to such condoms presents a challenge to the youth. If the situation continues in which the condoms that they do access are unsafe, how are such youth to be encouraged to continue to use contraception that protects them against STD’s, including HIV infection and unwanted pregnancy?

The availability of contraceptions at school was again requested by 6.3% (n=17) of the participants. Yet, the literature review indicated that this is an ongoing challenge

to youths. Service providers were found further to fail the South African youth by limiting them in their choice of protection or contraception. Both dual-method protection (using two contraceptive means at one time) and emergency contraception were found to be limited (DoH 2001:12).

#### **4.2.6.3 Abstinence from sexual intercourse**

Whether coming from a religious point of view, or in order to prevent HIV and unwanted teenage pregnancies, abstinence until marriage was urged by 6% (n=15) of the participants in response to the open-ended question. One person firmly told his peers that, until marriage, “you should keep your penis in your pants”. Some of the participants were found to be clearly aware of the benefits of abstinence. Such awareness, or the education leading up to it, needs to reach far more than only 6% of South African youth, even if the effect is not abstinence but safer sexual practices. The era of teen sexuality as a taboo discussion has passed. As discussed by Richter, Norris and Ginsburg (2006:1): “There is a barely disguised moral opprobrium towards teen sexuality, especially among young women, and a deep ambivalence about teenage pregnancies, how they should be recognized and managed, and how they might be prevented and/or serviced to reduce negative effects on young parents and their children.”

#### **4.2.6.4 HIV status**

Clear guidelines regarding HIV status to the youth was another topic of discussion. Six (2.2%) stated that the youth should have themselves tested in order to learn their HIV status, as well as be tested together with their partners. In a South African study, the low rate in concern for HIV transmission is apparent. Only 52% of those participants reporting having had sexual intercourse said that they had used a condom during their last sexual encounter (RHRU 2003:9).

### **4.3 Conclusion**

Chapter 4 presented and discussed the results of the study, which indicated several contextual and personal factors influencing reproductive health education and contraceptive accessibility for youths aged 13 to 18. Furthermore, the findings suggest the prerequisites of an accessible reproductive health service as perceived by the participants, and identify recommendations toward the improved provision and uptake of reproductive health education during early youth.

As shown in the chapter, many gaps exist in the current reproductive healthcare system in regards to preparing the youth to deal with matters of sexuality and their choices regarding sexual practices. The findings indicate that education for the youth regarding reproductive health is inadequate, and, when present, has little impact on their reproductive health choices. The study reveals that accessibility to contraceptives is problematic, resulting in many youths engaging in high-risk sexual intercourse. The empirical findings show the lack and inadequacy of service delivery to youths in terms of both reproductive health education and contraceptive availability, which has been indicated already in 1998 (Mfono 1998:10). The continued increase in the rate of HIV infection and unwanted pregnancies among the South African youth coupled with the findings from the study, suggest an ongoing failure to improve the reproductive health delivery system which is targeted at youths.

Chapter 5 will provide a succinct overview of the key findings, demonstrating achievement of the study objectives. The chapter will present the contextually appropriate recommendations, as identified by the study participants, toward improved provision of reproductive health education, including contraceptives, among South African youth. Chapter 5 will describe certain limitations of the study and draw together the final conclusions.

## CHAPTER 5

### CONCLUSIONS AND RECOMMENDATIONS

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#### 5.1 Introduction

Grounded in the study findings, Chapter 5 draws conclusions regarding the personal and contextual factors influencing the accessibility and uptake of reproductive health education, including contraception, during early youth (age 13 to 18). The conclusions will be discussed according to the study objectives, demonstrating their achievement. Based on the empirical evidence, recommendations toward the improved provision of reproductive healthcare, including contraceptive accessibility, to the youth of South Africa will be presented. The recommendations will be aligned with the latest Children's Act (RSA 2006; Act No. 38,2005), as discussed in Chapter 2, to facilitate policy-making and service delivery toward assuring the rights of youth as young as 12 years old. Chapter 5 describes certain limitations and draws together the final conclusions of the study.

#### 5.2 Achievement of the aim and objectives of the study

The aim of the study was to investigate those personal and contextual factors which influenced the accessibility and uptake of reproductive health education during early youth (age 13 to 18). The study also aimed to identify contextually appropriate recommendations, from the perspectives of the study participants, toward improved reproductive health education and contraceptive availability for youths from age 13 to 18. Accordingly, specific study objectives were identified and achieved as summarised in Table 15. The achievement of each study objective will be summarized in turn below.

##### 5.2.1 Objective 1: To identify the personal factors which impede or promote the uptake of reproductive health education

The findings suggest that the participants did not effectively incorporate the reproductive health education that they received during age 13 to 18. The

participants indicated that they neglected to apply the information that had been imparted to them during reproductive health education in their own sexual choices, as discussed in section 4.2.4. Only 50.4% (n=116) of the participants who received reproductive health education in their youth indicated that the impact of such education always influenced their choice to practise safer sex.

During the study, more than double the number of male participants (69.2%; n=65) indicated that they used condoms over those who indicated that they did not use condoms (28.7%; n=29). A significantly higher percentage of males than females used condoms during age 13 to 18 (69.2% vs. 54.9%, Chi-square, p=0.025). There was no significant difference in condom use across ethnicity.

In regards to the open-ended question, the findings show that the abstinence of some youths persists. Such participants noted the uptake of reproductive health education and safer choices when considering their own reproductive health. Such uptake was apparent in the thematic analysis and discussed in section 4.2.6.

### **5.2.2 Objective 2: To identify the contextual factors which impede or promote the uptake of reproductive health education**

The findings reveal that, for a third of the participants (33.2%, n=77), the first exposure to reproductive health education occurred by the age of 13, as discussed in section 4.2.3, and shown in Table 4. The delayed start of such education contravenes the latest Children's Act (RSA 2006; Act No. 38,2005), which stipulates that reproductive health education must be accessible for any person from the age of 12 years upwards. In the study, seven of the participants indicated that they had experienced their sexual début before entering high school at the age of 13. Reproductive health education reaches such youths too late to empower them to make safer sexual choices.

The reproductive health education received by the participants during early youth was found to be lacking in respect of the conveying of concepts relating to sexual intercourse, contraception, HIV and STDs. As shown in Table 5, the participants disclosed that they still had unanswered questions regarding the basic concepts of reproductive health, which were not adequately addressed in the reproductive health education that they had received.



The findings showed that those participants with lower levels of high school education more often indicated the need to access reproductive health education at alternative sources. The higher the level of high school education attained by the participants, the less likely they were to indicate the need for alternative reproductive health education (Mann-Whitney U,  $p = 0.04$ ); as shown in Figure 2. The data indicate that reproductive health education which fulfils the needs of the youth is only provided in the higher grades.

The study findings suggest that the perceived inferior quality of reproductive health education by participants could lead to higher HIV transmission risk among the youth. The HIV education that the participants received only influence two-thirds (65.2%;  $n=150$ ) of them to choose safer sexual practices. Only 43% ( $n=99$ ) of the participants who reported receiving reproductive health education indicated that they practised safer sex because of the contraceptive education they had received.

The findings reveal several factors which promote reproductive health education uptake, as shown in Table 6. These included the efficiency and positive attitude of the educator, an environment conducive to such education, and easier access to education as relevant promotional factors.

Factors impeding reproductive health education uptake were identified, as indicated in Table 7. Such factors include the inefficiency and negative attitude of the educator, a negative environment during the education, and the lack of access to such education.

The findings indicate the uptake of contraceptive education to be incompletely reflected in the participants' use of such knowledge, due to the inaccessibility of contraceptives at times. As is shown in Table 11, several factors barred the participants from accessing contraceptives. Peer pressure, social pressure and the prevention of access to contraceptives by partners were the main influences impeded accessing contraceptives.

### **5.2.3 Objective 3: To determine the perceived prerequisites of an accessible reproductive health service, aimed at meeting the needs of early youth**

The study participants identified alternative sources of access to reproductive health education during age 13 to 18, which are reflected in Table 14. Included in the findings was data relating to the participants' preference for receiving reproductive health education from a nurse at school. The participants requested access to more open communication regarding reproductive health to be provided at schools. Such an issue was noted in the thematic analysis of section 4.2.6, emphasising the need for the reproductive health education provided to be suited to the specific needs of the youth concerned.

The participants in the study clearly stated that they preferred to receive reproductive health education from a healthcare professional. Such a prerequisite emerged in several sections of the study (see Tables 8 and 14), including in the thematic analysis in which the participants were free to note those issues about which they felt strongly.

The findings indicate that the participants wanted education regarding reproductive health to be made available by their parents or in their own homes, as is shown in Table 14, and in section 4.2.6. Taking into consideration that the participants in the study were required to answer questions about their early youth, the fact that 61.3% (n=84) of the participants stated that they would have liked to receive more reproductive health education in their own homes is noteworthy. Such a finding is also a matter of concern, since the parents' knowledge regarding reproductive health tends to be poor (Han & Bennish 2009:7).

Factors prohibiting the use of by contraceptives by the youth were identified. As shown in Table 12, such factors included limited access to contraception, peer and partner pressure, the lack of information about the advantages that can be gained from the use of contraceptives, the reduction in sexual sensation caused by the wearing of condoms, and the misconception that condoms are unhealthy to use. Such perceptions contribute to the failure of youths to protect themselves against both HIV infection and unwanted pregnancy.

The findings show those sites from which the participants in the study would have liked to access contraceptives while they were at high school. Such findings are

presented in Table 14, and include access to contraception from a nurse at school, nurse in a public health clinic, school class, and home.

Stronger choice condoms were requested by the youths in the open-ended question. The participants noted the dangers of condom breakage, even advising using two condoms at the same time. The issue was also an emerging theme from the open-ended question, described in section 4.2.6

#### **5.2.4 Objective 4: To identify recommendations toward the improved provision and uptake of reproductive health education during early youth**

The study yielded several recommendations, grounded in the empirical findings, toward the improved provision and uptake of reproductive health education during early youth. The recommendations were identified by the study participants and thus specific to the needs of youths aged 13 to 18. The recommendations will be presented and discussed in section 5.3.

**Table 15: Evidence of the achievement of the objectives of the study**

Study objective	Summary of key findings	Evidence
<ul style="list-style-type: none"> <li>To determine personal factors that impede or promote the uptake of reproductive health education</li> </ul>	<p>Youth did not effectively/always incorporate the reproductive health education that they received.</p> <p>A significantly higher number of males chose to use condoms than did not.</p> <p>The abstinence values of youths persist and encourage uptake of reproductive health education and safer sex choices.</p>	<p>4.2.4; 4.2.5</p> <p>4.2.5</p> <p>4.2.6</p>
<ul style="list-style-type: none"> <li>To determine contextual factors that impede or promote the uptake of reproductive health education</li> </ul>	<p>Exposure to reproductive health education occurs as late as the age of 13 years, which is not in conformity with the latest Children's Act, No. 38 of 2005.</p> <p>Reproductive health education received found lacking by youth regarding the conveyance of concepts relating to sexual intercourse, contraception, HIV and STDs.</p> <p>Lower level of high school education correlates with the more pressing need for access to reproductive health education from alternative sources.</p> <p>Inferior quality of reproductive health education results in higher rate of HIV transmission risk among youth.</p> <p>Factors promoting reproductive health education uptake identified.</p> <p>Factors impeding reproductive health education uptake identified.</p> <p>Uptake of contraceptive education not completely reflected in the use of such knowledge, as contraceptives were not always accessible.</p>	<p>4.2.3 &amp; Table 4</p> <p>4.2.3 &amp; Table 5</p> <p>4.2.3 &amp; Figure 2</p> <p>4.2.4</p> <p>Table 6</p> <p>Table 7</p> <p>4.2.4; 4.2.5</p> <p>Table 11</p>

Study objective	Summary of key findings	Evidence
<ul style="list-style-type: none"> <li>To determine the perceived prerequisites of an accessible reproductive health service, aimed at meeting the needs of younger youths and youth</li> </ul>	<p>Alternative sources of access to reproductive health education identified.</p> <p>More education regarding reproductive health requested from parents or home.</p> <p>Factors prohibiting contraceptive use by youth were identified.</p> <p>Sites where youths would have liked to access contraceptives during high school were identified.</p> <p>Stronger condoms were requested by the participants in the study.</p> <p>More open communication regarding reproductive health in schools was requested.</p> <p>The participants stated a preference for reproductive health education from a healthcare professional.</p>	<p>Table 8</p> <p>4.2.3; 4.2.6</p> <p>Table 12</p> <p>Table 14</p> <p>4.2.6</p> <p>4.2.6</p> <p>4.2.5</p> <p>Table 14</p>
<ul style="list-style-type: none"> <li>To identify recommendations toward the improved provision and uptake of reproductive health education during early youth</li> </ul>	<p>Higher quality reproductive health education must be offered at the level of understanding of the school-going youth.</p> <p>Enablement of parents to better educate children regarding reproductive health.</p> <p>Provision of better quality contraceptive means is necessary.</p> <p>Youths should be exposed to more adequate and specified reproductive health education in schools, at clinics and by parents.</p> <p>Reproductive health education and access to contraceptives to youths should be offered by healthcare professionals.</p>	<p>4.2.3 &amp; 4.2.6</p> <p>4.2.5</p> <p>4.2.6</p> <p>4.2.3; 4.2.5;</p> <p>4.2.6</p> <p>4.2.3; 4.2.6</p> <p>Table 8</p>

### **5.3 Recommendations**

The recommendations, grounded in the findings of the study, are presented under headings, according to the themes that emerged from the data. Each of the themes, namely reproductive health education, contraceptive accessibility, the need for a new model of reproductive healthcare provision, and areas for further research, will be described in turn. These recommendations pose implications for management, policy and practice.

#### **5.3.1 Reproductive health education**

Reproductive health education for youths as young as 12 years old needs to be made a priority at both the DoH and DoE levels of government. As the service delivery regarding reproductive health within both these sectors is shown to be limited, collaboration between the two departments might be mutually beneficial to both the departments concerned, as well as to South African youth. The expertise of the professional healthcare provider, in a combined designated consultation area at institutional level, could respond to many of the reproductive healthcare problems currently encountered by the youth.

Better quality reproductive health education needs to be ensured by involving healthcare professionals, such as specialist nursing staff, in the process, whether at schools or at primary health clinics. The education needs to be both accurate and clear, yet designed to be offered at the cognitive level of the youth. In order to satisfy the educational needs of the youth, they have to be the focus point of the planning and implementation of such services.

Educational sessions should centre on the needs of the youth, enabling both the open and clear communication of the relevant facts. Such education needs to originate from a non-judgmental source, not limiting the youth in any way when they enquire about reproductive health issues. All youngsters need to have the chance to ask questions that they have answered in a supportive and educative way. The content and approach of these educational sessions need to be adjusted and improved in efficacy by involving the youths themselves in lesson planning and structure.

Parents should have the means of acquiring accurate knowledge regarding reproductive health, in order that they might better prepare their children to make

informed safer sexual choices. Such parental education could be facilitated at public health clinics, or by a school-based professional healthcare provider. Training sessions for parents should be provided to inform them about reproductive health issues and the sexually related risks that their children have to face.

### **5.3.2 Contraceptive accessibility**

Better quality condoms and wider choices regarding contraceptive use should be offered to youths as young as 12 years in a confidential setting. All contraceptive means offered within the public healthcare system should be accessible to any one from the age of 12 years up.

Healthcare professionals, such as nurses, should be involved in providing contraceptive means to youths. The provision of such means comes with the obligation adequately to inform the youth in order for them to be able to apply the method correctly. Such provision should be the responsibility of a trained professional.

Access to contraceptive means by healthcare professionals should be offered in an environment that is not threatening to youths, and which is within easy reach of every youth 12 years and older. As the DoE already offers such a site in terms of the school infrastructure, and reproductive health is recommended to become the joint responsibility of the DoE and DoH, reproductive healthcare services should reach the youth on the school-grounds.

### **5.3.3 Further research**

Further research is required in the field of HIV and other STDs. Such research is especially applicable in relation to South African youth, among whom an alarmingly high incidence of HIV infection occurs (as was discussed in Chapter 2). However, very little data are available on other STDs that are prevalent among the children and youth of South Africa, and further research regarding such diseases is necessary.

With the implementation of the latest Children's Act (RSA 2006; Act No. 38,2005), it is important to evaluate where the healthcare system failed the youth in the past and whether changes in the system could be made to suit the specific requirements of youths as young as 12 years old. Research regarding the implementation of the Act,

as well as the influence of the implementation on reproductive health service delivery for the youth, is required.

The employment of strategies aimed at engaging the youth in implementing the latest Children's Act is recommended (RSA 2006; Act No. 38,2005). Such strategies would have to be researched to include reproductive health service planning, development and provision. Such a process might inspire an increase in the number of youths taking full responsibility for their reproductive health future.

#### **5.4 Need for a new model in reproductive healthcare provision**

The findings from the study suggest the need for a new model of reproductive health care provision to youths. Such a model would have to conform to the directives contained in the latest Children's Act (RSA 2006; Act No. 38,2005), and recommendations determined by the youth themselves, as revealed in the study. Specific core components of such a proposed model are discussed below, reflecting the findings of the study.

##### **5.4.1 Merging the DoH and DoE sectors**

A new approach is suggested in order to include the requested reproductive health education and care from a healthcare professional, within a system easily accessible to the youths. The adoption of such an approach would require a merger in the resources of both the DoE and DoH. If such collaboration were to reach its full potential, certain changes by both the sectors involved would be necessary.

A new approach by specially assigned healthcare professionals is advisable. Such an approach would ensure that no added pressure would be placed on already over-extended service delivery systems and the employees in the DoE and DoH. Basic facilities would have to be made available on the premises of schools, which are the easiest access point for the youth. Teams of healthcare professionals should be assigned to such schools, which should be responsible for operating a full reproductive healthcare clinic that would be made accessible to all students.



#### **5.4.2 Ensuring the rights of South African youth**

To assure the maintenance of a non-judgmental approach, it should be compulsory for every learner at a school to consult a healthcare professional about reproductive health. To make the timeframe viable in order to be able to offer an adequate contraceptive means of choice (injection, the Pill or condoms), a personal consultation would be required at least every 2.5 to 3 months. As all learners would then attend the clinic on site at school, the privacy of choice would be upheld between the healthcare provider and the youth concerned. As long as the youth is 12 years or older and able to make informed decisions, the latest Child Act (RSA 2006; Act No. 38,2005) states that they would be free to choose to make use of such a service without any input from their parents or caregivers. The choice to make use of the service provided or to forgo on such an opportunity would remain every learner's right.

The envisaged clinic would offer reproductive health education and contraceptive services by a trained professional. Each learner would be seen individually, ensuring that the confidentiality of the learner is retained, as predetermined in terms of a fixed schedule (which would allow for one visit every 2.5 to 3 months). The learner would then be able to ask any questions about their reproductive health and/or to access contraceptives. Alternatively, the learner could spend the time reading a magazine. The choice remains that of the learner. Clear records of learners should be kept, regarding their general health, as well as their reproductive history. This would also be an opportunity to identify other needs of the learners, such as the treatment of STDs or social problems. Referrals could also be made accordingly.

The provision of reproductive health education in a group situation by healthcare professionals could be considered, if the workforce is adequate to provide such group education.

#### **5.4.3 Legislation**

In implementing such a proposed model, the youth's needs regarding reproductive health education and the care provided by a healthcare professional within an easily accessible situation would be met. The latest Children's Act (RSA 2006; Act No. 38,2005) allows for the implementation of such a system without having to obtain the permission of any guardian, as long as the learner is 12 years of age or older. The

development of such a programme could fulfil all of the current study's recommendations regarding reproductive health education and contraceptive availability.

## **5.5 Limitations of the study**

The study was limited to those students enrolled with the Northlink FET College within the Cape Town Metropole. Although the sample represented a diverse section of socioeconomic and cultural backgrounds, generalising the results could be argued as unreasonable, due to the sample size. The study was, however, undertaken by means of simple random sampling. The results and conclusions could potentially be applicable to a broader population of South African youth.

During the undertaking of the study, several unforeseen circumstances presented operational limitations. Within the timeframe of data collection, several public servant strikes occurred. Such strikes included the transport and municipal worker sectors, leading to several of the participants in the study not being able to attend college due to safety concerns. The occurrence of such a situation led to the PI having to visit and revisit those campuses most affected by absenteeism in order to include more of the participants in the study.

Time was an additional limitation. Due to examinations and academic procedures at the Northlink FET College, a limited window of opportunity for data collection was presented. This limited not only the number of participants of the study, but also delayed data analysis and finalization of the research report.

A further potential limitation within the study is recall bias. Since reproductive health education issues and sexual début are of such significance to the individual, the potential impact of recall bias was not regarded as a major threat to the study. This was considered and discussed with the participants after the completion of the pilot study questionnaires. The participants confirmed the ease of recalling such paramount issues in their lives, representing key developmental stages.

When considering the response or lack thereof in certain sections of the data, the sensitivity of the research question may be viewed as a limitation. The participants did not respond as well as was expected in certain instances. The reason for this is unclear, but could be attributed to the possible mistrust of the PI with reference to the

confidentiality of each individual's information. Personal concerns or sensitivity regarding the research topic might have played a role.

Notwithstanding certain limitations, the findings nevertheless could pose implications for research, education, policy and practice in other similar settings.

## **5.6 Conclusion**

As discussed in Chapter 2, the high levels of HIV infection and unwanted teenage pregnancy occurring among South African youth indicate a negative outcome of the current reproductive healthcare service provision. The provisions of the latest Children's Act (RSA 2006; Act No. 38,2005) must be implemented, allowing for the expansion of reproductive healthcare rights to persons as young as 12 years old. The current situation creates the scope for a justified change of approach by the service delivery sectors, in their intention to provide reproductive healthcare to South Africa's youth.

Chapter 5 demonstrated that the aim and objective of the study were achieved. The study findings suggest the inadequacies in the current provision of reproductive health education to South African youth. The study of the perspective of youths, undertaken retrospectively, looking back on their high school years (age 13 to 18), was undertaken at a time when the latest Children's Act (RSA 2006; Act No. 38,2005) was not yet implemented by the government. The findings of the current study thus reflect the degree of service provision to which the youths were exposed prior to the updating of the legal system protecting their reproductive health rights. The PI recognises certain limitations that presented potential problems during the current study. However, such problems were accounted for and strategies employed to minimize their potential impact.

The participants indicated that their first exposure to reproductive health education occurred as late as at the age of 13. Such a timeframe is inappropriate, taking into consideration the extensive sexual intercourse engaged in at this age, as reported by some of the participants, which was supported by the findings from the literature. The reproductive health education regarding the fundamental concepts of sexual intercourse, contraception, HIV and STDs received from the age of 13 to 18 was found to be inadequate by most of the participants. Such fundamental shortcomings

were confirmed in the literature, which notes the misconceptions of youth regarding their risk of infection and pregnancy. This situation is a cause for concern since, if the youths were not adequately informed regarding the basic concepts of reproductive health, they were not equipped with the basic knowledge to make safe sexual choices.

The findings of the study also suggest inadequate accessibility and knowledge of contraceptive means. The findings, confirmed by the literature, showed that the youths felt judged and ridiculed when attempting to access contraception. Such a situation is unacceptable. There is a danger that the current reproductive healthcare service delivery system might be exposing South African youth to the risk of making ill-informed and high-risk reproductive health decisions, subjecting them to a high risk of HIV infection and unwanted pregnancy.

Considering the recently promulgated legislation that is meant to be implemented despite the apparently failing system, the opportunity to redesign the approach to provide reproductive healthcare to youth as young as 12 years is questionable. Within the situation, the opinions and recommendations of the youth should be considered as valuable input. The findings of the study indicate that the participants would have preferred a very different provision of reproductive health education and care, in terms of which they could clearly state their preferences and needs. The study identified certain prerequisites of youths for a reproductive healthcare system that would service all their reproductive health needs. Based on the findings from the literature, this is the first South African study to examine the opinions of youths specifically in order to determine what they feel they need in terms of reproductive health care.

The latest Children's Act (RSA 2006; Act No. 38,2005) could be implemented in such a way as to respond to the specific needs of the youth. Engaging the youth in reproductive health education planning and service provision holds potential for the provision of an appropriate service, for increasing contraceptive accessibility, and for the uptake of reproductive health education. The current study contributes to that end. The identified recommendations toward improved provision and uptake of reproductive health education during early youth are applicable at both educational and healthcare sector level.

“You can start teaching children about the basic methods that you need to know, about where babies come from at the age of 12...then you can teach more about reproductive health education, including contraceptives. School would be more suitable, as many parents don’t talk to their children about this. School by a nurse would also be great” (Participant 2009).

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## **APPENDIX A: Data collection tool**

### **Research questionnaire**

#### Glossary:

- Your sex – whether you are male or female.
- Sexual intercourse – sexual activity between two or more people consisting of oral, vaginal and/or anal penetration of one person by the penis of another person (hetero/homosexual activity) or by force of an object.
- Forced sexual intercourse – sexual intercourse that is done without full permission/consent of both parties involved.
- Sexual education – information and facts given in order to better inform the recipient concerning reproductive health, potential sexually transmitted diseases and contraception.
- Uptake – understanding and making use of facts and information discussed during education.
- Educator – the person/s that inform/s you concerning a specific topic.
- Contraception – methods that, when practised/used correctly, will aid the prevention of pregnancy.
- Mainstream school – conventional state/private high school (grades 8 to12).
- Comprehensive – understandable and complete/extensive, appropriate to recipient.
- Sexually transmitted diseases (STDs) – Contagious disease usually acquired by sexual intercourse or genital contact (e.g. gonorrhoea, syphilis, herpes, AIDS).
- Abstinence – refraining from any sexual activity.

Please answer the following questions as clearly and honestly as possible.

For this questionnaire, please include your answers applicable for ages 13 to 18years.

Encircle your choice of options.

1. Indicate your age:

18 years

19 years

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2. Are you?

Male

Female

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3. Please indicate your race (Circle one only):

Black

Coloured

Indian

White

Other \_\_\_\_\_

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4. In which South African province did you attend high school?

\_\_\_\_\_

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5. What is the highest grade you completed in a mainstream school?

[Definition: Mainstream school: conventional state/private high school (grades 8 to12)]

Grade 8

Grade 9

Grade 10

Grade 11

Grade 12

Other \_\_\_\_\_

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6. What is the last year you were enrolled in a mainstream school?

2004

2005

2006

2007

2008

Other \_\_\_\_\_

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7. At what age did you enrol in this college (Northlink FET College)?

\_\_\_\_\_

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8. Have you previously had sexual intercourse?

[Definition: Sexual intercourse: sexual activity between two or more people consisting of oral, vaginal and/or anal penetration of one person by the penis of another person (hetero/homosexual activity) or by force of an object.]

Yes

No

(If No, go to question 12.)

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9. At what age was your first sexual intercourse?

\_\_\_\_\_

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10. Was your first sexual intercourse voluntary or forced?

[Definition: Forced sexual intercourse: sexual intercourse that is done without full permission/consent of both parties involved]

Voluntary

Forced

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11. Are you currently sexually active (sexual intercourse within the last 4 weeks)?

Yes

No

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12. Have you had sexual education during your younger youth (age 13 to 18)?

[Definition: Sexual education: information and facts given in order to better inform the recipient concerning reproductive health, potential sexually transmitted diseases and contraception]

Yes

No (If No, go to question 17.)

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13. At what age did you first receive sexual education of any kind?

\_\_\_\_\_

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14. Have you had sexual education before your first sexual intercourse?

Yes

No

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19. Did any factors discourage/prevent you from accessing sexual education?

Yes

No (If No, go to question 21.)

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20. If 'Yes', which factors discouraged/prevented your uptake of sexual education? (You may choose more than one.)

- a. Inefficient/incapable educator
- b. Negative attitude of educator
- c. Bad environment during education
- d. Declined access to sexual education
- e. Other (please explain)

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21. Would you have preferred another source/venue for receiving sexual education during your younger youth?

Yes

No (If No, go to question 23.)

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22. If yes, where would you have preferred to access sexual education during your younger youth (age 13 to 18)? (You may choose more than one.)

- a. Home
- b. Public health clinic
- c. School – Teacher
- d. School – Nurse
- e. Educative play
- f. Peer/Youth educator
- g. Other (please explain)

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23. Did your sexual education influence your choices for safer sexual practices/choices during your younger youth (age 13 to 18)? (Choose one.)

- a. Never
  - b. Sometimes
  - c. Mostly
  - d. Always
- 

24. Did the sexual education you received between ages 13 to 18 answer all your questions about the following sexual/reproductive health issues? (Answer each question.)

- |  |     |    |
|--|-----|----|
| a. Sexual intercourse  | Yes | No |
| b. Contraception<br>[Definition: Contraception: methods that, when practised/used correctly, will aid the prevention of pregnancy]   | Yes | No |
| c. HIV / AIDS  | Yes | No |
| d. Other STDs<br>[Definition: Sexually transmitted disease (STD): Contagious disease, usually acquired by sexual intercourse or genital contact (e.g. gonorrhoea, syphilis, herpes, AIDS)] | Yes | No |

e. Other (please explain)

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25. Did the HIV/AIDS education influence your safer sex decision-making? (Choose only one.)

- a. Never
  - b. Sometimes
  - c. Mostly
  - d. Always
-





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30. What was your contraceptive method of choice? (You may choose more than one.)

- a. Condom (male/female)
- b. 2-/3-month injection
- c. The Pill
- d. The Pill + condom combination
- e. The injection + condom combination
- f. Abstinence  
[Definition: Abstinence: refraining from any sexual activity]
- g. Other (please explain)

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31. Where did you most regularly access this contraception? (You may choose more than one)

- a. Public health clinics
- b. Public toilets
- c. Retail shops
- d. Friends
- e. My partner supplied it
- f. Other (please explain)

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32. Were these contraceptives freely available?

Yes

No (If Yes, go to question 34.)

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33. If No, what hindered you from freely accessing contraceptives? (You may choose more than one.)

- a. Peer pressure
- b. Social pressure
- c. Community judgement
- d. Parental judgement
- e. Partner preventing
- f. Nursing staff
- g. High price of condoms
- h. Other (please explain)

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34. IF you did not use contraception during your youth (age 13 to 18) what was your reason? (Answer each question.)

- |  |     |    |
|--|-----|----|
| a. I was not informed about its advantages | Yes | No |
| b. I did not have access to it             | Yes | No |
| c. Peer pressure                           | Yes | No |
| d. Partner pressure                        | Yes | No |
| e. Condoms reduce sexual sensation         | Yes | No |
| f. Other (please explain)                  |     |    |

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## APPENDIX B: Ethical Committee approval letter

18 May 2009

**MAILED**

Ms L McMillan  
Dept of Nursing  
2nd Floor, Teaching Boulevard  
Stellenbosch University  
Health Sciences Faculty  
7505

Dear Ms McMillan

**"A retrospective study among 18-19 year old college students of the accessibility and uptake of reproductive health education during their earlier youth."**

**ETHICS REFERENCE NO: N09/04/112**

**RE : APPROVAL**

It is my pleasure to inform you that the abovementioned project has been provisionally approved on 18 May 2009 for a period of one year from this date. You may start with the project, but this approval will however be submitted at the next meeting of the Health Research Ethics Committee for ratification, after which we will contact you again.

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 to make their final decision.

Please quote the abovementioned project number in all future correspondence.

Please note that a progress report (obtainable on the website of our Division) 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.

Please note that in line with the recent changes to research ethics guidelines, including the Declaration of Helsinki, the CHR requires that all researchers specifically request and motivate for a waiver of informed consent for retrospective clinical audits.

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

The Health Research Ethics Committee complies with the SA National Health Act No.61 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council

Yours faithfully

**DR MALCOLM DE ROUBAIX**

**RESEARCH DEVELOPMENT AND SUPPORT**

Tel: +27 21 938 9207 / E-mail: mertrude@sun.ac.za

Fax: +27 21 931 3351

21 May 2009 11:28

Fakulteit Gesondheidswetenskappe · Faculty of Health Sciences

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

## **APPENDIX C: Permission letter for data collection at Northlink FET College**



Central Office: 80 Voortrekker Road, Bellville 7530  
Tel: 021 970 9000 • Fax: 021 970 9063  
Private Bag X1, Panorama 7506  
info@northlink.co.za • www.northlink.co.za  
Enquiries: 08600 NLINK

### **TO WHOM IT MAY CONCERN**

This serves to confirm that Ms. Lauren McMillan was given permission earlier this year to have access to students at the following campuses of Northlink College, a public FET institution, in order to complete her research towards the obtaining of a MCur qualification at the University of Stellenbosch:

Protea Campus

Belhar Campus

Bellville Campus

Goodwood Campus

Tygerberg Campus

Our best wishes accompany her in her further academic endeavours.

**Mr. C. J. Coetzee**

**Deputy Ceo: Academic**

**26 November 2009**

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• <b>Belhar Campus</b> Tel: 021 952 2113 • Fax: 021 952 6694	• <b>Goodwood Campus</b> Tel: 021 591 3181 • Fax: 021 592 2493	• <b>Protea Campus</b> Tel: 021 946 2250 • Fax: 021 949 0886	• <b>Tygerberg Campus</b> Tel: 021 558 1050 • Fax: 021 558 1120
• <b>Bellville Campus</b> Tel: 021 951 2231 • Fax: 021 951 3967	• <b>Parow Campus</b> Tel: 021 931 8238 • Fax: 021 931 8244	• <b>Table Bay Campus</b> Tel: 021 421 6075 • Fax: 021 421 5795	• <b>Wingfield Campus</b> Tel: 021 591 9207 • Fax: 021 592 3923



## APPENDIX D: Participant Consent Form

### PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

#### **A study among 18 to 19 year old college students of the accessibility and uptake of reproductive health education during their earlier youth**

**PRINCIPAL INVESTIGATOR:** Lauren Mc Millan

**ADDRESS:** Panorama Medi Clinic  
Rothschild Boulevard  
Parow

**CONTACT NUMBER:** 084 800 3333 (cell)  
021 938 2570 (work)

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. I will be spending some time to explain the details of the project to you. Please stop me at any time if you are unsure of what I am saying or what is presented here. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. 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 research 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?**

The study will be done at Northlink FET College campuses in the Cape Town area, including as many as 400 students aged 18 or 19 years of age. By doing this study, I want to find out how good the reproductive health education was that you received, as well as how accessible you found contraceptives in your younger youth (from ages 13 to 18). It will also look at where you would have liked to receive reproductive education and contraceptives.

It is important that you give permission for me to use the anonymous information you give me in my research findings and statistics, as well as in making some recommendations.

None of the information that you share with me specifically will be made available to any other persons. It will make part of a mass of data used to draw conclusions and indicate statistical findings.

Once the information (in response to questionnaires) has been processed, it will be destroyed.

The findings of the study may be published, but your identity will not be revealed. You may have access to the report if you so wish.

Selection of participants will be done in a certain order, so that all students have a fair chance of taking part in this study, as long as they fall within research-specific inclusion criteria.

### **Why have you been invited to participate?**

You have been invited to take part in this study, because I would like to find out what aspects of the current healthcare system needs adjustment according to you, in order to ensure adequate reproductive health education and contraceptive availability for youths. You fall into the category of older youths, whose opinion about this issue I would like to explore.

### **What will your responsibilities be?**

Your responsibilities will be to answer the questions in my questionnaire to the best of your ability as honestly possible. Some of the questions are of a very personal nature and include questions about your personal sexual experiences (both voluntary and enforced) and habits. You might find such questions disturbing. Consider this very carefully and, if necessary, discuss this with the researcher before you agree to participate. Remember that you may withdraw from the study at any time, even after commencement of the study.

### **Will you benefit from taking part in this research?**

You will not benefit directly from taking part in this study. The information that we receive might, however, help to adjust the current healthcare system in order to comprehensively serve the next generation of youths.

### **Are there any risks involved in your taking part in this research?**

There are some questions that might pose a risk to you, in that they might cause you to experience some distress. If this does occur, please let the researcher know and you will be referred to the campus psychology support system. You have the choice to discontinue your participation at any time if you feel uncomfortable answering the questions. There is, however, no risk of any information you provide being traced to you, as it is gathered confidentially and anonymously.

### **Who will have access to your answers?**

All the information that you share with me will be kept confidential. If the information is published, your identity will not be revealed. I will be the only person handling the questionnaires, but the collective data will be handled and interpreted by a technical assistant and a statistician.

### **What will happen in the unlikely event of some form of injury occurring as a direct result of your taking part in this research study?**

The campus support systems, as well as the psychological support department in the main management of Northlink FET Colleges, have given full support of this study. If any part of this process upsets you, please inform me, so that further steps can be taken to fully support you.

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

This study costs you, as participant, nothing and you will not be remunerated for completing the questionnaire.

**Is there anything else that you should know or do?**

You can contact me, Lauren Mc Millan, at 084 800 3333 if you have any further queries about the study.

You can also contact the Committee for Human Research at 021-938 9207 if you have any concerns or complaints that have not been adequately addressed by the person doing the study.

You will receive a copy of 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: *A study among 18 to 19 year old college students of the accessibility and uptake of reproductive health education during their earlier youth.*

I declare that:

\* I have read 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 study doctor or 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) ..... 2009

\_\_\_\_\_  
Signature of participant

\_\_\_\_\_  
Signature of witness



**Declaration by investigator**

I (name) ..... declare that:

\* I explained the information in this document to my study participant as signed above.

\* 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 translator.

Signed at (place) ..... on (date) ..... 2009

\_\_\_\_\_  
Signature of investigator

\_\_\_\_\_  
Signature of witness

