

**KNOWLEDGE, ATTITUDES AND USE OF CONTRACEPTIVES AMONGST FEMALE
LEARNERS ATTENDING A HIGH SCHOOL IN MDANTSANE**

by

NOLUNDI MSHWESHWE-PAKELA

submitted in accordance with the requirements

for the degree of

MASTER OF PUBLIC HEALTH

at the

UNIVERSITY OF SOUTH AFRICA

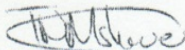
SUPERVISOR: PROF MC MATLAKALA

JANUARY 2015

DECLARATION

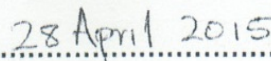
Student number: 45141282

I declare that, **KNOWLEDGE, ATTITUDES AND USE OF CONTRACEPTIVES AMONGST FEMALE LEARNERS ATTENDING A HIGH SCHOOL IN MDANTSANE** is my own work and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before for any other degree at any other institution.



.....
Signature

Nolundi Mshweshwe-Pakela



.....
Date

KNOWLEDGE, ATTITUDES AND USE OF CONTRACEPTION AMONGST FEMALE LEARNERS ATTENDING A HIGH SCHOOL IN MDANTSANE

STUDENT NUMBER: 45141282
STUDENT: NOLUNDI MSHWESHWE-PAKELA
DEGREE: MASTER OF PUBLIC HEALTH
DEPARTMENT: HEALTH STUDIES, UNIVERSITY OF SOUTH AFRICA
SUPERVISOR: PROF MC MATLAKALA

ABSTRACT

The purpose of this study was to attain an understanding of knowledge, attitudes and use of contraception amongst learners attending a high school in Mdantsane. A quantitative, descriptive survey was conducted. Data were collected using a semi-structured questionnaire which was self-administered by 150 female learners. These learners were doing grade 10-12 and were aged between 18-20 years. The findings indicated that 86.67% of the learners understood contraception as prevention of pregnancy, only 8.67% understood contraception as prevention of sexually transmitted diseases. The 66.3% of learners had positive attitude towards contraceptives. The 77.27% of the learners were using injectable contraceptives. The main reason for stopping use of contraception was side effects.

Conclusion: Majority of learners had basic knowledge of contraceptives, but knew few types and did not know their mechanism of action. Most learners had positive attitude and were using contraceptives.

Keys concepts

Contraception; knowledge of contraceptives; attitudes; use; learners.

ACKNOWLEDGEMENTS

I would also like to thank the following people for their contributions to this dissertation:

- My supervisor, Professor MC Matlakala, for her guidance and support.
- Eastern Cape Department of Education, for giving me permission to conduct the research.
- Masixole High School, the management and the school teachers, for allowing me to administer the questionnaire.
- The female learners of Masixole High School, for responding to the questionnaire with such enthusiasm.
- Sibuse Ginindza, for statistical advise

Dedication

This dissertation is firstly dedicated to the Lord Almighty who has given me the intellect, strength and perseverance to finish my studies.

To my husband Miso, who continued to love, encourage and support me throughout this time. Thank you my love for such love and support.

A special thanks to our kids Khanya, Bubuhle and Linamandla. I thank you for the time that I stole from you in order to manage to finish this work. A special dedication goes to both my families, who believed in me and my capabilities.

TABLE OF CONTENTS

CHAPTER 1

OVERVIEW OF THE STUDY

1.1	INTRODUCTION.....	1
1.2	BACKGROUND TO THE RESEARCH PROBLEM	3
1.3	PROBLEM STATEMENT	4
1.4	PURPOSE OF THE STUDY	5
1.5	RESEARCH OBJECTIVES	5
1.6	DEFINITION OF KEY CONCEPTS	6
1.7	SIGNIFICANCE OF THE STUDY	7
1.8	INTRODUCTION TO METHODOLOGY.....	7
1.8.1	Research paradigm.....	7
1.8.2	Descriptive research	7
1.8.3	Setting.....	8
1.8.4	Population.....	8
1.8.5	Sampling	8
1.9	ETHICAL ISSUES	8
1.10	DATA COLLECTION AND ANALYSIS	9
1.11	CONCLUSION	10
1.12	ORGANISATION OF CHAPTERS.....	10

CHAPTER 2

LITERATURE REVIEW

2.1	INTRODUCTION	11
2.2	CONTRACEPTION	11
2.2.1	Advantages and disadvantages of contraception	12
2.2.1.1	Advantages of contraception.....	12
2.2.1.2	Disadvantages of contraception.....	13
2.3	CONTRACEPTION IN SOUTH AFRICA	14
2.3.1	Availability and accessibility of contraceptives	14
2.3.2	Young women and contraception	15

2.4	YOUNG WOMEN'S USE OF CONTRACEPTION	16
2.4.1	Service orientated factors	16
2.4.1.1	Availability and accessibility of contraceptives	16
2.4.1.2	Quality of contraceptive services	17
2.4.1.3	Affordability of contraceptive services	18
2.4.1.4	The attitude of healthcare workers	18
2.4.2	Personal orientated factors	18
2.4.2.1	Knowledge of contraception	19
2.4.2.2	Attitudes towards contraception	20
2.4.2.3	Level of education	21
2.4.2.4	Culture and religion	21
2.4.3	Types of contraceptives used	22
2.4.4	Use of emergency contraception	23
2.5	CONCLUSION	23

CHAPTER 3

RESEARCH METHODOLOGY

3.1	INTRODUCTION	24
3.2	PURPOSE OF THE STUDY	24
3.3	STUDY OBJECTIVES	24
3.4	RESEARCH DESIGN	24
3.4.1	Quantitative research	25
3.4.2	Descriptive research	25
3.4.3	Survey	26
3.5	RESEARCH METHODS	26
3.5.1	Population	26
3.5.2	Setting	26
3.5.3	Sample and sampling method	27
3.5.4	Eligibility criteria	27
3.6	DATA COLLECTION	28
3.6.1	Development of the questionnaire	28
3.6.2	Advantages and disadvantages of a self-administered questionnaire	29
3.6.1.1	Advantages	29
3.6.1.2	Disadvantages	29
3.6.3	Pre-testing of the questionnaire	29
3.7	RELIABILITY AND VALIDITY OF THE QUESTIONNAIRE	30

3.7.1	Reliability	30
3.7.2	Validity	30
3.8	DATA ANALYSIS AND MANAGEMENT	31
3.9	ETHICAL CONSIDERATIONS	31
3.10	CONCLUSION	33

CHAPTER 4

DATA ANALYSIS AND PRESENTATION

4.1	INTRODUCTION	34
4.2	DATA COLLECTION AND MANAGEMENT	34
4.3	DATA ANALYSIS AND PRESENTATION	35
4.3.1	Demographic data	36
4.3.1.1	Age of respondents	36
4.3.1.2	School grade	36
4.3.1.3	Dating status	37
4.3.2	Sexual practices	37
4.3.2.1	Last sexual activity	38
4.3.2.2	Dating status vs last sexual activity	39
4.3.3	Knowledge of contraception	39
4.3.3.1	Understanding of contraception	40
4.3.3.2	Understanding of where contraceptives are accessed	40
4.3.3.3	Familiar types of contraceptives	41
4.3.3.4	Knowledge of contraceptives' side effects	42
4.3.3.5	Knowledge of how contraceptives work to prevent pregnancy	43
4.3.3.6	Source of contraceptive information	44
4.3.3.7	Knowledge of contraceptives amongst learners that reported to have engaged in sexual activity	45
4.3.4	Attitude towards contraception	48
4.3.5	Use of contraceptives	49
4.3.5.1	Use of contraceptives amongst learners that reported to have engaged in sexual activity	53
4.4	DISCUSSION OF THE FINDINGS	55
4.5	CONCLUSION	58

CHAPTER 5

CONCLUSIONS, LIMITATIONS AND RECOMMENDATION

5.1	INTRODUCTION.....	59
-----	-------------------	----

5.2	SUMMARY OF THE STUDY.....	59
5.2.1	Overview of the study	59
5.2.2	Literature review	59
5.2.3	Research methodology	60
5.2.4	Summary of research findings	60
5.2.4.1	Knowledge of contraception	60
5.2.4.2	Attitude towards contraception	61
5.2.4.3	Use of contraceptives	61
5.3	CONCLUSIONS.....	61
5.4	RECOMMENDATIONS	61
5.4.1	Educating learners	62
5.4.2	Educating parents & teachers	62
5.4.3	Use of media to disseminate information	62
5.4.4	Recommendations for further research	62
5.5	CONTRIBUTIONS OF THE STUDY	63
5.6	LIMITATIONS OF THE STUDY	63
5.7	CONCLUDING REMARKS	63
	LIST OF SOURCES	64

LIST OF TABLES

Table 4.1	Age distribution of the respondents	36
Table 4.2	School grade of the respondents	36
Table 4.3	Dating status	37
Table 4.5	Dating status vs last sexual activity	39
Table 4.6	Understanding of contraceptives	40
Table 4.7	Contraceptives access.....	40
Table 4.8	Familiar types of contraceptives	41
Table 4.9	Contraceptives' side effects	42
Table 4.10	Source of contraceptives' information	44
Table 4.11	Learners' attitude towards contraception	48
Table 4.12	Use of contraceptives	50
Table 4.13	Type of contraceptive in use	50
Table 4.14	Use of contraceptives in the past	50
Table 4.15	Type of contraceptive used in the past	50
Table 4.16	Reasons for discontinuation of contraceptives	51
Table 4.17	Learners that reported to have used contraceptives	52
Table 4.18	Current use of contraceptives	53
Table 4.19	Type of contraceptive currently in use	53
Table 4.20	Use of contraceptives in the past	53
Table 4.21	Type of contraceptive used in the past	53
Table 4.22	Reasons for stopping/discontinuation of contraceptive use	54
Table 4.23	Cross tabulation of use of contraceptives amongst learners that had engaged in sexual activity	55

LIST OF FIGURES

Figure 4.1	Last sexual activity	38
Figure 4.2	Knowledge of how contraceptives work to prevent pregnancy	43
Figure 4.3	Understanding of contraceptives amongst learners that reported to have engaged in sexual activity ..	45
Figure 4.4	Knowledge of where contraceptives can be accessed amongst the learners that reported to have engaged in sexual activity	45
Figure 4.5	Types of contraceptives familiar to the learners that reported to have engaged in sexual activity	46
Figure 4.6	Contraceptives' side effects that were familiar to the learners that reported to have engaged in sexual activity	47

LIST OF ABBREVIATIONS

EC	Emergency contraception
IUCD	Intra uterine contraceptive device
LARCs	Long acting reversible contraceptives
STIs	Sexually transmitted infections
WHO	World Health Organization

LIST OF ANNEXURES

- ANNEXURE A ETHICAL CLEARANCE CERTIFICATE CERTIFICATE

- ANNEXURE B LETTER TO REQUEST PERMISSION TO CONDUCT THE STUDY

- ANNEXURE C APPROVAL TO CONDUCT THE STUDY

- ANNEXURE D INFORMATION LEAFLET AND INFORMED CONSENT

- ANNEXURE E DATA COLLECTION INSTRUMENT

CHAPTER 1

OVERVIEW OF THE STUDY

1.1. INTRODUCTION

A report released by the United Nations Population Fund stated that the world's human population reached about 7 billion by 2011, and 90% of future population growth is projected to occur in the developing countries like South Africa (Curson 2011:1527). Furthermore, this will increase competition between the people for the already restricted resources, leading to increased poverty and reduced access to services such as health care (Curson 2011:1527). Among other interventions, safe and effective use of contraception can help reduce population growth.

In sub-Saharan Africa, 75% of young women report having had sex by the age of 20 years. This results in a high incidence of unplanned and unwanted pregnancies among these young women at a very early age. It is estimated that about 14 million unintended pregnancies occur every year in sub-Saharan Africa, with almost 50% occurring among women aged 15-23 years (Hubacher, Mavranouzouli & McGinn 2008:77). Improving contraceptive services can have more important benefits, especially in developing countries (Curson 2011:1527). These include decreasing the number of unplanned pregnancies and the number of termination of pregnancies.

Contraception is the use of various devices, drugs, agents, sexual practices or surgical procedures to prevent conception. There are both modern and other methods of contraceptive. Modern contraceptive methods are a vital component of contraception (Crede, Harries, Constant, Hoke, Green & Moodley 2010:579). Currently, there are different types of modern contraceptives used worldwide. The modern contraceptives include injectables which comprises of medroxyprogesterone acetate 150 long acting and norethisterone enantate; oral contraceptives, including monophasic, biphasic and triphasic; barrier methods, such as spermicide which are in the form of film, tablets, foam or gel and male and female latex condoms.

Other types of contraceptives are diaphragm (with spermicide); cervical cap with applicator; the intra uterine device (IUD), including copper-bearing and levonorgestrel-releasing IUDs (World Health Organization (WHO) 2009:44, 59). Emergency Contraceptive pills, such as lenorgestrel and combined oral contraceptive pills are normally prescribed during incidents of unprotected coitus (WHO 2009:76). Other methods of contraception include, but not limited to abstinence from sexual intercourse until marriage; coitus interruptus; rhythm method and lactation amenorrhea method.

The use of modern contraceptives in South Africa has increased with time. An estimated 65 % of sexually active women use contraception, however, there is still a high number of unplanned pregnancies (Crede et al 2010:579). It is therefore important to assess factors that affect use of contraception.

According to the WHO (2009:14), adolescents are eligible to use any method of contraception and must have access to a variety of contraceptive choices. Understanding young women's (including teenagers and adolescents) contraceptive behaviour is especially complex because of variability in young women's contraceptive needs and motivations. For example, while adolescents may choose to use any one of the contraceptive methods available in their communities, in some cases, using methods that do not require daily regimen may be more appropriate for the adolescents. In addition, method choice may also be influenced by factors such as sporadic patterns of intercourse and the need to conceal sexual activity and contraceptive use (WHO 2009:14).

Contraception is important amongst young women, especially those that are still learners because pregnancy can disrupt their studies. The South African Department of Education policy on measures for prevention and management of learner pregnancy allows school girls to remain in school during pregnancy and to return to school post pregnancy (South Africa 2007:5). However, only a third of teenage mothers return to school, most of them never return to school after delivery (Panday, Makiwane, Ranchod & Letsoalo 2009:11, 13).

1.2 BACKGROUND TO THE RESEARCH PROBLEM

Improving reproductive health is central to achieving the millennium development goals on improving maternal health, reducing child mortality and eradicating extreme poverty. This requires that women have access to safe and effective methods of contraception. Access to contraceptives have even further benefits to female learners in South Africa as it will enable them to finish schooling without being interrupted by pregnancy and child birth (Cleland, Bernstein, Ezeh, Fuandes, Glassier & Innis 2006:1811).

In South Africa modern contraceptives are freely available in public health care facilities. Contraceptive services are offered in these public health care facilities five days a week and 30.3% of the facilities offer the acceptable dual method, namely, condom and another contraceptive method (South Africa 2012:16). In an effort to reduce learners' pregnancies the Department of Education has introduced various intervention programmes to increase access to quality education and improve learner behaviour through life-skills programmes as well as HIV and AIDS programmes in schools (South Africa 2007:3). The healthy living curriculum programmes have been incorporated in the school curriculum to raise learner awareness and deal with behaviour change amongst learners (Creecy 2013:3).

The life skills curriculum has been implemented in schools which deal with the holistic development of the learner throughout childhood. It equips learners with knowledge, skills and values that assist them to achieve their full physical, intellectual, personal, emotional and social potential. Learner pregnancy and HIV/AIDS are covered in the Personal and Social Well-being of the subject (South Africa 2007:3). Besides education and information provided at schools there are clinics, television, radio and internet which also provide information about HIV/AIDS and pregnancy (Creecy 2013:5).

Despite the government's effort to prevent pregnancies amongst learners, pregnancies amongst female learners have continued to increase. In 2005 the number of learners that fell pregnant was 55.69 per 1000 enrolled learners; in 2006 the number increased to 56.34 per 1000 enrolled learners; in 2007 it further increased to 59.51 and in 2008 62.81 per 1000 enrolled learners. Learners aged 17-19 account for the high teenage pregnancies in South Africa. These pregnancies are significantly high among black (71 per 1000) and coloured (60 per 1000) adolescents (Panday et al 2009:41). This is

contradictory to the ideal situation where unintended pregnancy should be avoided by effective use of contraceptives.

Crede et al (2010:579) indicate that the uptake of contraceptives is high in South Africa, estimated at 65% of sexually active women. Identified limits to contraceptive use among young women in sub-Saharan Africa include lack of knowledge, obstacles to access and concern over side effects, especially fear of infertility (Williamson, Parkes, Wight, Petticrew & Hart 2009:5).

Additionally, Makiwane (2010:195-196) indicates that teenagers become sexually active in early puberty. During this time, the teenager is faced with various challenges such as the onset of menstruation in girls and wet dreams in boys. These teenagers become sexually active at an early stage and without using any form of contraceptives. A study conducted by (Jahnavi & Patra 2009:129) showed that 94.4% of school going adolescents were aware of contraceptives and their availability in public clinics and in pharmacies. However, very few adolescents were aware of the different types, names and how to use the contraceptives. According to the findings of the study these learners considered that the condom is an emergency contraception (Jahnavi & Patra 2009:130).

A study conducted by Manena-Netshikweta (2007:8) amongst secondary school learners in Limpopo found that permissive attitudes prevailed towards sex, characterised by casual sexual activities commencing at an early age. This study further found out that few of the female learners knew about contraceptives and the different types of modern contraceptives. In addition, about half of the female learners received contraceptive information from their friends while only about others received the information from their parents.

1.3 PROBLEM STATEMENT

Burns and Grove (2005:70) define a research problem as an area of concern where there is a gap in the knowledge base needed for practice. Despite the fact that different modern contraceptives exist worldwide, the problem of unplanned pregnancies, especially amongst teenagers still exist. This could be due to low awareness about contraception, negative attitudes towards contraception or low accessibility to contraceptives (Williamson et al 2009:8).

The researcher's interest was raised after observing young women, particularly teenagers, some in their school uniforms, coming to access services at the women's health clinic located within a specific Hospital in Mdantsane. Some of these girls were students of the neighbouring schools coming for termination of pregnancy offered in the women's health centre. The numbers of pregnancies terminated in this hospital and the number was 682 pregnancies terminated in a period starting 1 April 2012 to 31 March 2013, meaning approximately 56 pregnancies were terminated every month. The researcher looked into the ward records and found that 56% of the terminations of pregnancy requests were girls aged 18-20 years.

Young women, especially those that are learners are taught about contraception at school and at clinic and therefore they should be knowledgeable about contraceptives. Looking at the high unintended pregnancy and termination of pregnancy rate amongst these young women, in the presence of free contraceptives in public clinics, there is a need to conduct this study in order to get the perspective of the learners regarding contraception.

1.4 PURPOSE OF THE STUDY

Burns and Grove (2005:71) refer to the research purpose as a clear statement of the specific goal or aim of the study that is generated from the research problem. The purpose of this study was to attain an understanding of knowledge, attitude and use of contraception amongst female learners attending a high school in Mdantsane.

1.5 RESEARCH OBJECTIVES

Research objectives are clear, concise, declarative statements that are expressed in the present tense (Burns & Grove 2005:156; Van der Walt & Van Rensburg 2008:111). The objectives of this study were to

- explore the knowledge of contraception amongst female learners attending a high school in Mdantsane
- describe the attitudes of the learners towards contraception use
- assess use of and factors that affect use of contraception amongst female learners attending a high school in Mdantsane

1.6 DEFINITION OF KEY CONCEPTS

Attitude towards contraception: An attitude is an expression of the way a person thinks, feel and behave towards something. A person can have a positive or negative attitude towards something (*Oxford English Mini Dictionary 2007:31*).

For the purpose of this study, attitude is defined as a generalised idea or belief about contraception. Negative or positive attitude will be measured through consistent responses to questions.

Contraception: Contraception is defined as a process or technique for the prevention of pregnancy by means of a medication, device, or method that alters one or more of the process of reproduction in such a way that sexual union can occur without conception (WHO 2011:261). In this study, contraception is be defined as modern contraceptive method/s used to prevent or postpone pregnancy.

Knowledge of contraception: Knowledge is the state of familiarity with the information, understanding and skills that a person gains through education and experience (*Oxford English Mini Dictionary 2007:309*). For the purpose of this study knowledge is defined as familiarity with contraception, including descriptions and information acquired through its experience or education.

Knowledge will be measured in three categories: those with no knowledge, those with some knowledge and those with sufficient knowledge.

Use of contraception: To use is to do something with a method or an object for a particular purpose (*Oxford English Mini Dictionary 2007:612*). For the purpose of this study, use of contraception is defined as a measure of use of a method of modern contraceptive. Use was measured in three categories, namely, those who are not using any form of contraception; those who sometimes use contraception and those who use contraception continuously.

Learners: A learner is someone who is in the process of taking up knowledge and or beliefs from a teacher (*Oxford English Mini Dictionary 2007:612*).

For the purpose of this study, a learner is referred to a female learner in grade 10-12 in a high school in Mdantsane.

1.7 SIGNIFICANCE OF THE STUDY

The findings of this study gives an insight on how much knowledge do learners attending a high school in Mdantsane have on contraception. These findings also give an idea of those learners' attitude on contraception and their use of contraception. This study has a potential to inform the school to improve their curriculum content related to contraceptives. This, in turn could enable development of reality-based integrated programmes which will facilitate effective use of contraception by learners to prevent unplanned pregnancies. In addition, the findings helped develop recommendations that can enlighten the teachers about the knowledge, attitude and use of contraceptives by the female learners. These recommendations may be incorporated in the life-skills curriculum when teaching about teenage pregnancy and contraceptives.

1.8 INTRODUCTION TO METHODOLOGY

1.8.1 Research paradigm

A quantitative and descriptive research paradigm was followed. Quantitative research paradigm is defined as a formal, objective, systemic process in which numerical data is used (Burns & Grove 2005:239).

1.8.2 Descriptive research

Descriptive studies are used to quantify the extent of a health problem in a population (Joubert & Ehrlich 2007:78). Burns and Grove (2005:232-233) point out that a study is descriptive when it intends to describe a phenomenon accurately within its specific context and when it is based on collected data. The purpose of a descriptive survey is to provide the opinions of the respondents regarding the phenomenon being studied (Burns & Grove 2005:239). In this study, the researcher aimed at describing the knowledge, attitudes and use of contraceptives by a group of female learners, aged 18-20 years and attending a particular high school in Mdantsane.

1.8.3 Setting

The setting was a high School located at native unit 4 in Mdantsane. Mdantsane is in a township in East London which is located in Eastern Cape Province of South Africa.

1.8.4 Population

The target population was all female learners attending a particular high school in Mdantsane. The inclusion criteria were female learners doing grade 10-12 at a particular high school in Mdantsane during year 2013. These female learners were between the ages of 18-20 years

1.8.5 Sampling

A convenience sampling method was used to select the respondents for the study.

According to Brink, Van der Walt and Van Rensburg (2008:132), convenience sampling is a non-probability or 'availability' sampling technique. All available female learners aged 18-20 years and doing grade 11 or 12 during year 2013 were therefore be approached and asked to participate in the survey.

High school learners are within the ages of 13 and 20 years. From grade 7 to grade 10 the learners are aged between 13 and 16 years, very few are aged 18 years and above. The researcher therefore used grade 10 to grade 12 learners as their ages were mostly between the age of 17 and 20 years. Each high school class in Mdantsane had about 45 learners and there were 9 grade 10 to 12 classes in each high school. The number of grade 10 to 12 female learners between ages of 18 and 20 years was 168. The sample size was therefore 150 respondents in order to give provision for those who may not give consent (Burns & Grove 2005:350).

1.9 ETHICAL ISSUES

Ethical issues are the principles and values that help safeguard the rights and welfare of research participants (Joubert & Ehlich 2007:52). This study also considered ethical

issues because humans were included as study respondents and their rights and welfare needed to be protected.

Permission to conduct the study: Ethical clearance was sought from the Higher Degrees Committee of the Department of Health Studies, UNISA (Annexure A). Permission to approach the school was requested from the Eastern Cape Department of Education (ECDoE) and from the school principal and school governing body before conducting the study (Annexure B). Approval was obtained from the ECDoE (Annexure C).

Autonomy and respect for persons: According to Department of Health (South Africa 2006:12), potential respondents have to be well informed about the study prior participation. It states that informed consent is an essential component of ethical research. An information leaflet with all the study information was presented to the potential respondents. They were also given a copy of the information leaflet to read and take home if they wished to do so.

The respondents then signed informed consent before participating in the study (Annexure D). As part of the informed consent, it was explained to the respondents that they had a right to refuse participation in the study or withdraw at any stage without any penalty.

Confidentiality: The respondents were not asked to write their names on the questionnaire, therefore their responses could not be associated with individuals. All consent forms and case report forms were kept in a locked cupboard and only the researcher, supervisor and UNISA had access to the documents. Consent forms which were signed by the respondents were kept separate from the completed questionnaire so that they could not be matched with the responses. During publication of results, the names of the respondents will not be mentioned (Joubert & Ehrlich 2007:35).

1.10 DATA COLLECTION AND ANALYSIS

A semi-structured questionnaire was used to collect data from the respondents (Annexure E). The questionnaire was self-administered by the respondents. Data was captured on a computer on Microsoft excel and analysed by means of Stata. Means,

medians and ranges were used to describe continuous variables such as the ages, parity and school grades. For descriptive analysis of categorical variables frequency distributions and percentages were used. For data quality, validity and reliability of the data collection instrument will be explained in chapter 3.

1.11 CONCLUSION

This chapter described the background to and the research problem, purpose and the objectives of the study, defined concepts used in the study, significance and limitations of the study. Chapter 2 will discuss the literature review undertaken for the study.

1.10 ORGANISATION OF CHAPTERS

Chapter 1: Overview of the study

Chapter 2: Literature review

Chapter 3: Research methodology

Chapter 4: Data analysis and presentation

Chapter 5: Conclusions, limitations and recommendations

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Literature review is an organised written presentation of what has been published on a topic by a researcher. The purpose of literature review is to convey to the reader what is currently known regarding the topic of interest and it requires that the author critically analyse the available literature on the topic (Burns & Grove 2005:93). The literature of this study reviewed the general concept of contraception in South Africa; the availability and use of contraception; and the knowledge, attitude and use of contraception by high school learners. The review included sources available from books, journals, internet websites and government policies.

2.2 CONTRACEPTION

Contraceptive services availability and use have improved worldwide. The department of health of South Africa has committed in improving contraception services and education about contraceptives and sexual health in the schools. This was done in an effort to prevent unplanned pregnancies amongst young women, especially those who are still learners (South Africa 2007:2). This has reduced the number of pregnancies amongst female learners, but there is still a high number of them having unplanned pregnancies (Panday et al 2009:27). Lack of use of contraceptives by young women is associated with inaccessibility of contraception due to attitudes of health workers; partners who did not want it due to misconceptions and not thinking about contraception at the time of sexual activity.

The WHO (2011:261) defines contraception as a process or technique used for the prevention of pregnancy by means of a medication, device, or method that alters one or more of the process of reproduction in such a way that sexual union can occur without conception. There are different forms of contraception, namely natural/traditional ways of contraception and modern contraceptives.

Natural contraception is a method used to assist couples in determining the optimal time when to either achieve or avoid pregnancy (Dreyer 2012:87). Traditional family planning in the southern African region includes the use of various herbs and plants, religious beliefs and prayer, and the prevention of intra-vaginal ejaculation. Dreyer (2012:88) state that these methods are unfortunately not well studied and probably have limited varying contraceptive efficacy. Types of natural family planning include, but are not limited to; coitus interruptus; lactation amenorrhea method and ovulation method (Dreyer 2012:88). Modern contraceptives act by interrupting hypothalamic-pituitary hormonal axis to cause anovulation, others affect the fallopian tube function and on the cervical and uterine receptiveness causing failure of sperm transport, fertilisation and implantation (Dreyer 2012:17).

2.2.1 Advantages and disadvantages of contraceptives

Contraceptives, both natural and modern have their advantages and disadvantages.

2.2.1.1 Advantages of contraceptives

Modern contraceptives such as pills and injectables are relatively cheap and easily obtainable in health care centres in South Africa (Dreyer 2012:150). Long acting reversible contraceptives (LARC) such as injectables and IUCDs combine reversibility with highly effective contraception, as they do not rely on compliance and correct use in the same way as pills and barrier method (South Africa 2012:11). Injectable contraceptives also have an advantage of reducing the risk of endometrial and ovarian cancer (French 2009:44). They also reduce symptoms of endometriosis (Downey 2014). Male and female condoms have an added advantage of protecting against sexually transmitted infections (STIs) (Dreyer 2012:150). Emergency contraception can prevent unplanned pregnancy following unprotected sexual intercourse.

It may be an especially useful method for young women, because in this group sexual activity is often unplanned and sporadic (South Africa 2012:39). Unintended pregnancy incurs about \$4.6 billion in direct medical costs per year in the United States of America (Trussell, Henry, Hassan, Prezioso, Law & Filonenko 2013:160). A number of models have demonstrated that policies that increase contraceptive use offer considerable cost

savings to both public funds as well as to insurance companies (Burlone, Edelman, Caughey, Trussell, Dantas & Rodriguez 2013:146).

2.2.1.2 Disadvantages of contraceptives

Dreyer (2012:94) states that natural contraceptive methods are not sufficient in modern societies where high efficacy is expected and smaller families are the norm. When using natural methods couple will need to avoid sexual intercourse during the time pregnancy might occur, which some couples can find difficult (Dreyer 2012:94).

Oral contraceptives require daily compliance in order for them to be effective (Dreyer 2012:150). Progestogen-only oral contraceptives also require strict dosing in young women (Dreyer 2012:151). This can be a challenge for females that have a potential of forgetting to take the pill. Long-acting injectables have side effects such as amenorrhea, irregular bleeding and weight problems (Marshal & Jones 2011). These are often unwelcome to women. Intra-uterine contraceptive devices are usually inserted by doctors or a trained health care worker and is therefore not available everywhere (French 2009:43). In addition, the progestogen-only injectable contraceptives have a health risk of affecting the the bone mineral density, especially amongst women who have not reached their peak bone mass and those approaching menopause (French 2009:44). Emergency contraceptives (COC-based) are associated with nausea and vomiting. Additionally, these emergency contraceptive pills are not as effective as other methods of contraception when used regularly (WHO 2012:4)

The costs such as purchasing of contraceptives and payment service charges, indirect economic costs particularly among rural populations such as travelling expenses, foregone income from working time spent seeking contraceptive services and other related costs can discourage potential clients from using contraceptives.

For example an American study by Dusetzina, Dalton, Chernew, Pace, Bowden and Fendrick (2013:70) revealed that in 2010, patient out-of-pocket costs for initiating contraceptives was \$10 for generic oral contraceptives, \$112 for IUDs, and \$116 for implants. The same study revealed that, patient out-of pocket expenditures increased for LARC methods by approximately 40% for IUDs and 60% for implants between 2007 and 2010.

2.3 CONTRACEPTION IN SOUTH AFRICA

Contraception use in South Africa was officially initiated in 1930 as mothers' clinics were intended largely to provide white, poor married women with birth control methods (South Africa 2009:5).

In 1974 South African government developed a country-wide family planning program which received generous support from central government. This family planning program served millions of women, mostly black women (Kaufman 2000:107). The political rationale for this family planning service became black birth control (South Africa 2009:6). By the end of 1992 of 1992 the number of family planning service delivery points had greatly increased (South Africa 2009:6).

South African health legislation since the end of apartheid in 1994 has been characterised by a strong policy commitment to reproductive health, rights and equity. In 2010 the South African Minister of health committed himself to "a long healthy life for all South Africans". The health sector also committed to reducing maternal and child mortality. This commitment included an intention to increase the availability of contraceptives for all individuals requiring it and in all facilities in order to increase the availability of contraception for all individuals requiring it (South Africa 2012:13)

2.3.1 Availability and accessibility of contraceptives

Today in South Africa modern contraceptives are freely available in public health care facilities. They are also available privately in many pharmacies and private clinics and hospitals. Contraceptive services are offered in public health care facilities five days a week and the 2009 Department of Health report states that 30.3% of the facilities offer the acceptable dual method namely condom and a contraceptive method (South Africa 2012:16). Contraception services are, however, not available in many work places and school campuses. This makes contraceptive services to be inaccessible to these women as they normally leave these places very late in the day when the clinics have closed (Zungu & Manyisa 2009:72).

Reproductive health services in South Africa, specifically contraceptive services cater mostly for married women. Youth experience social issues, including fear, shame in

utilizing sexual health resources, lack of patient privacy and provider bias. These were commonly found to be the greatest barrier to accessing contraceptive services for youth population (Williamson et al 2009:5).

2.3.2 Young women and contraception

There has been a decrease in the number of unplanned pregnancies among young women between late 1990s and 2006 to 2008 in sub-Saharan countries. However, over 20% of young women in these countries still reported to have been mothers or pregnant with their first child during 2008 (Prata, Weidert & Sreenivas 2012:86; Panday et al 2009:27). The decrease in unplanned pregnancies has been attributed to the increased availability of contraceptives although there is still a substantial unmet gap in contraception among these young women (Panday et al 2009:27).

A survey of learners in grades 8 to 11 in public sector schools across the 9 South African provinces found that learners already had sex, of which some indicated that they did not use contraception. Overall, learners who had already had sex indicated that the method of contraception that they most commonly used was a condom. Some used injectable contraceptives and others used oral.

There were racial variations in the number of learners that had engaged in sexual intercourse with Black Africans and Coloured having significantly high numbers than Whites and Indians. The prevalence also increases with age, with more having sexual intercourse at the age of 19 years and older. The Eastern Cape Province had the highest prevalence of learners who reported ever having had sexual intercourse (Reddy, James, Sewpaul, Koopman, Funani, Sifunda, Josie, Masuka, Kambaran & Omardien 2008:30-32).

In an effort to reduce number of pregnancies occurring among learners in South Africa the Department of Education has introduced various intervention programmes to increase access to quality education and improve learner behaviour through life-skills programmes as well as HIV and AIDS programmes in schools. The healthy living curriculum programmes have been incorporated in the school curriculum to raise learner awareness and deal with behaviour change amongst learners (Creecy 2013:3; South Africa 2007:2).

The life skills curriculum has been implemented in schools which deal with the holistic development of the learner throughout childhood. It equips learners with knowledge, skills and values that assist them to achieve their full physical, intellectual, personal, emotional and social potential. Learner pregnancy and HIV/AIDS are covered in the Personal and Social Well-being of the subject (South Africa 2007:3). Besides education and information provided at schools there are clinics, television, radio and internet which also provide information about HIV/AIDS and pregnancy (Creecy 2013:5).

2.4 YOUNG WOMEN'S USE OF CONTRACEPTION

About 16 million adolescent girls worldwide give birth each year. Babies born to adolescent mothers account to an estimated 11% of all births worldwide; with 95% of these births occurring in developing countries. For some of these young women, pregnancy is planned and wanted, but for many others it is not (WHO 2011:ix).

Although young women do use contraceptives to prevent unplanned pregnancies, there are some who do not use contraceptives. Non-use of contraceptives is an important factor that results to unplanned pregnancies amongst young women. The factors influencing the use of contraception among young women can be grouped into service oriented factors and personal oriented factors.

2.4.1 Service oriented factors

Service oriented factors are those that relate to the services of contraception provided. The service oriented factors include such factors such as accessibility, availability, quality and affordability of contraceptive services. It also includes factors such as the attitude of health care workers.

2.4.1.1 *Availability and accessibility of contraceptive services*

Sexually active young women need access to appropriate and effective contraceptives to protect themselves against unplanned pregnancies. The 2009 Department of Health report states that 30.3% of the public health facilities offer the acceptable dual method namely condom and a contraceptive method (South Africa 2012:16). Contraception services are, however not available in many work places and schools. This makes

contraceptive services inaccessible to these women as they normally leave these places very late after work when the clinics have closed (Zungu & Manyisa 2009:72).

Reproductive health services in South Africa, specifically contraceptive services cater mostly for married women. Youth experience social issues, including fear, shame in utilizing sexual health resources, lack of patient privacy and provider bias. These were commonly found to be the greatest barrier to accessing contraceptive services for youth population (Williamson et al 2009:5). Studies have shown that access to transportation and proximity to urban areas influence women's interest in using contraceptives. Compared to other women, those in communities with motorable roads and proximity to urban areas were more interested in using contraceptives (Benefo 2006:497).

Stigmatising young women's sex is also one of the barriers to accessing contraceptive services. A study conducted by Wood and Jewkes (2006:113) reported that nurses generally felt very uncomfortable giving contraception to adolescent girls, particularly younger ones, whom they invariably thought of as "children". They perceived that sex was starting at a younger age and that the easy availability of contraception encouraged this.

2.4.1.2 Quality of contraceptive services

The quality of contraceptive services has an effect their usage. Health facilities providing good quality contraceptive services have better usage than those providing poor services. For example, studies have shown that contraceptive services linked to other services have better usage than unlinked services. The integration of contraceptive services with other services in order to improve their quality can boost the uptake of contraceptive services (Njagi & Maharaj 2006:117). For instance, a study in Ethiopia revealed that integrating family planning into voluntary counselling and testing clinics was feasible, cost-effective and increased both the uptake of voluntary counselling and testing and family planning services (Gillespie, Bradley, Woldegiorgis, Kidanu & Karklins 2009:868).

2.4.1.3 *Affordability of contraceptive services*

The affordability of contraceptive services is an important factor affecting contraceptive services' uptake. Health facilities providing affordable contraceptive services have better uptake than those providing unaffordable ones. In South Africa, public health facilities provide contraceptives free of charge whilst private health facilities provide contraceptives at a fee. The high cost of contraceptive services is a barrier to their uptake. A study in the United States of America showed that despite the superior effectiveness of long-acting reversible contraception (LARC), including implants and intrauterine contraception, their usage among women is still low because they are considerably more expensive to initiate (Trussell, Lalla, Doan, Reyes, Pinto & Gricar 2009:11).

2.4.1.4 *The attitude of health care workers*

Even though contraceptive services are available without charge from public health facilities in South Africa the attitude of health staff serve as a significant barrier of accessing family planning services especially for young women. Young women trying to access free contraceptives from clinics choose to never return because of the judgement and scolding of clinic staff (Wood & Jewkes 2006:113). In some cases, nursing staff, together with mothers, force young girls to use injectables, sometimes at the inception of menstruation to avoid early pregnancy (ibid). Nursing staff also do not educate young girls sufficiently enough on how to take contraceptive pills and on consequences of missed doses as well as potential side effects of injectables such as amenorrhoea and weight gain (ibid). As a result, girls use contraceptives incorrectly and sometimes stop contraceptive use altogether.

2.4.2 *Personal orientated factors*

Personal oriented factors are those that emanate from the individual. Personal oriented factors include: knowledge of contraception, attitudes towards contraceptive services, culture, religion and socio-economic status.

2.4.2.1 Knowledge of contraception

Poor knowledge is often cited as a reason for ineffective or non-use of contraceptives, but studies have shown that most young people are informed about modern methods of contraception (Bankole, Ahmed, Neema, Ouedraogo & Konyani 2007:203). Some studies indicate that learners (between 80%-90%) of both boys and girls were aware that contraceptives are available (Jahnavi & Patra 2009:229; Ahmed, Moussa, Patterson & Asamohoh 2012:110). These studies also indicate that more males than females knew about oral contraceptives, but both did not know any other forms of contraception (Jahnavi & Prata 2009:229).

Oni, Prinsloo, Nortjie and Joubert's (2005:56) findings concur with the other researches, stating that contraceptive knowledge amongst high school students in Jozini, KwaZulu-Natal was very low. These students were however aware of contraceptives and their availability. According to this study, more males than females reported to have engaged in sexual activity without using contraception. More males knew about condom as a form of contraception whereas more females knew about injectable contraceptive.

A qualitative study conducted in Taung, South Africa by Kanku and Mash (2010:568) however found contrasting results to the previously mentioned studies. This study found that teenagers knew almost nothing about contraception. This study further explains that teenagers shared that their parents never discuss contraception with them, they figure out things by themselves. This study further states that one of the teenagers during an interview shared that they are misinformed about effective contraception, for example there are people telling them that if they eat leaves from some tree they will not fall pregnant.

A study conducted in Ethiopia amongst women showed that sexually active women had heard about emergency contraceptives and had positive attitude towards it. Of the total sexually active women, about half of them had engaged in unprotected sex and most of those used EC (Ahmed et al 2012:110).

The consulted studies agree that the main source of contraceptive information for the young women is the peer groups, the media and internet. The school and clinic also

gives some information about contraception and very few get the information from their parents (Jahnavi & Prata 2009:230; Kanku & Mash 2010:568; Bankole et al 2007:203).

2.4.2.2 Attitudes towards contraception

Family planning services are provided to young people with the purpose of making available reproductive health services, providing contraception including condoms and improving their knowledge and skills to use them (Kirby 2007:28). Although this is the case, over half of sexually active young people did not use contraception when they have sex. While a range of socio-cultural factors determine contraceptive use, attitude towards contraception is one of the major factors that lead them to either use or not use contraceptives to prevent unplanned pregnancies.

Negative attitudes such as that using contraception would cause infertility, make users fat and/or reduces pleasure in sex often result in non-use of contraceptives (Kirby 2007:28, Manena-Netshikweta 2007:188). A study conducted by Akers, Schwarz, Borrero and Corbie-Smith (2010:165) agreed with this as adolescent females and their families reported to be very concerned about the safety of menstrual irregularities associated with many hormonal contraceptive methods. This concern often results in negative attitude and discontinuation of contraceptive use. However, a study conducted by Maja (2002:233) in Gauteng had contradicting results. This study found that majority of female respondents had positive attitude towards injectable contraceptives and pills, but had negative attitudes only towards IUDs. Level of female approval of family planning in the community was also found to be significantly associated with contraceptive use in both East and West Africa (Stephenson, Clements, Hennink & Madise 2007:1237).

The woman's decision to adopt a modern method of contraceptive is also influenced by how she perceives other community members will judge her actions. For example a study by Stephenson et al (2007:1237) revealed that, in Ghana and Tanzania, the level of community approval of family planning had a larger effect on contraceptive use than did the perceived approval of the woman's partner.

2.4.2.3 Level of education

The women's level of education is an important factor impacting reproductive behaviour. Community education levels may influence prevailing norms regarding contraceptive decision-making through increasing levels of female autonomy. A study focusing on contextual factors that may influence contraceptive use in 6 countries from East (Kenya, Malawi, and Tanzania) and West (Burkina Faso, Ghana, and Ivory Coast), revealed that women with a secondary education or higher were more likely to be using contraception than were women with no education (Stephenson et al 2007:1236).

Similarly, a study by Benefo (2006:498) on the community-level effects of women's education on reproductive behaviour in rural Ghana revealed that a woman's interest in regulating her fertility is affected by the education of other women in her community. The women's level of education may influence prevailing norms regarding contraceptive decision-making through increasing levels of female autonomy.

2.4.2.4 Culture and religion

In families and broader cultural and social environment, reactions to teenage women who become pregnant show diversity, particularly between racial groups. African traditional ideals are that pregnancy should be confined to marriage, but social norms have deviated from this for a long time. The delay and decline in formal marriage and the acceptance of sex outside marriage has led to extra-marital pregnancy becoming common (Jewkes, Morrell & Christofides 2009:680). Young women from different cultural backgrounds or traditions might be influenced by different factors not to use contraceptives.

According to Kaufman, De Wet and Stadler (2001:152), educated girls tend to fetch greater wealth (known as lobola) in many South African traditional cultures, which may encourage parents to support their daughters' schooling, and perhaps return to school following childbirth. However, encouraging their daughters to use contraceptives in order to complete their schooling prior to childbearing could be problematic for many parents as it is viewed as encouraging the girl to engage in sexual activity.

Marston and King (2006:1583) found that in many African cultures men are universally expected to be “highly heterosexually active and women chaste”, while young women’s good reputations are based on their virginity. Young women are generally considered responsible for preventing pregnancy, but stigmatised if they are known to be carrying condoms or using contraception. This inhibits communication between partners and promotes non-use of contraceptives.

In many African cultures women needs the approval of their male partners to use contraceptives. In these cultures, it is still a taboo to discuss issues on family planning. This hinders the use of contraceptives. Studies showed that women whose husbands approved of contraception and those who reported frequent discussion of family planning with their partners were more likely to be using contraception than women whose husbands did not approve family and those who reported never discussing family planning with their partners (Stephenson et al 2007:1236). A study by Stephenson et al (2007:1236) in West and East Africa revealed that in Malawi, Muslims were less likely to use modern contraception than were Catholics; in Ivory Coast, Protestants were less likely to use modern contraception than were Catholics.

2.4.3 Types of contraceptives used

In the UK, the contraceptive pill and condom are the most commonly used by young people while in South Africa they mostly commonly use a condom and an injectable-progestogen method (Oni et al 2005:55; Contraceptive choices for young people ... 2010:4). Similar findings were evident is a study conducted by Stephenson, Beke and Tshibangu (2008:65-66) in the Eastern Cape Province in South Africa which found that the majority of women were using injectable contraceptives and only few were using IUD and pills. This study further found that injectable contraceptives are mostly used in poorer communities and by younger aged women compared to older and more independent women. However, a study conducted by Mchunu, Peltzer, Tushana and Seutlwadi (2012:433) showed that majority of young female respondents were not using a condom when they were with their non-regular partner. This study further concluded that this could be an indication that even though women feel empowered to negotiate condom use, it might not be as easy when they are with their partners.

A study conducted by Maja (2002:243) in Northern Tshwane, Gauteng had different results altogether. This study found that the respondents were using a variety of contraceptive methods, such as the pill, injections, condoms and IUCDs.

2.4.4 Use of emergency contraceptives

Emergency contraception can prevent pregnancy after unprotected intercourse, method failure or incorrect method use, but studies on use of emergency contraception show that less than half of women who engage in unprotected sexual intercourse use emergency contraceptives. Only about half of sexually active women know about emergency contraceptives and relatively low percentage reported to have ever used it to prevent pregnancy after unprotected sexual intercourse (Adewunmi, Rabi, Tayo, Ottun, Adeboye, Akindele 2012:25; WHO 2012:3). A study conducted by Rocca, Schwarz, Stewart, Darney, Raine and Harper (2007:29) also revealed that most young women considered emergency contraceptives to be safe and effective.

Compared to women with clinic access, women with direct pharmacy access were more likely to use emergency contraception within 24 hours. According to this study, reasons for non-use of EC were inconvenience and fear of side effects.

2.5 CONCLUSION

The chapter presented the literature review used in the study. The aspects of the literature reviewed include; the general concept of contraception, advantages and disadvantages of contraception, contraceptive services among young people in South Africa and the factors influencing the use of contraceptive services among young people. The next chapter discusses the methodological aspects of the study.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter outlines the research design and methodology, including the target population from which the sample was drawn, selection criteria, research instrument, ethical considerations and data analysis procedures.

3.2 PURPOSE OF THE STUDY

The purpose of this study was to attain an understanding of knowledge, attitude and use of contraception amongst female learners attending a high school in Mdantsane.

3.3 STUDY OBJECTIVES

The objectives of this study were to

- explore and describe the knowledge of contraception amongst female learners attending a high school in Mdantsane
- describe the attitudes towards contraception use amongst female learners attending a high school in Mdantsane
- assess use of and factors that affect use of contraception amongst female learners attending a high school in Mdantsane

3.4 RESEARCH DESIGN

A research design is a plan according to which the research must be carried out. It specifies what observations to make, how to make them and when to make them (Stommel & Wills 2004:33). Grove, Burns and Gray (2012:195) define a research design as a blueprint for conducting the study that maximises control over factors that could interfere with the validity of the findings.

The research design guides the researcher in planning and implementing the study in a way that is most likely to achieve the intended goal.

This study used a quantitative, descriptive and survey research design. The purpose of selecting this research design was to describe prevailing knowledge, attitude towards contraception, as well as contraceptive use among female learners of grade 10 to 12 in a high school in Mdantsane. A survey method was used to collect data from the convenience sample of grade 10 to 12 female learners.

3.4.1 Quantitative research

Polit and Beck (2012:739) define quantitative research as the investigation of phenomena that lend themselves to precise measurement and quantification, often involving a rigorous and controlled design. Quantitative research emphasises on the quantification of constructs. The quantitative researcher believes that the best way of measuring the properties of phenomena is through assigning numbers to the perceived qualities of things (Babbie & Mouton 2001:49). This study attempted to quantify the knowledge, attitude and use of contraception amongst female learners of a particular school in Mdantsane.

3.4.2 Descriptive research

Burns and Grove (2005:232-233) point out that a study is descriptive when it intends to describe a phenomenon accurately within its specific context and when it is based on collected data. The purpose of a descriptive survey is to provide the opinions of the respondents regarding the phenomenon being studied (Burns & Grove 2005:239).

A descriptive study sets out to quantify the extent of a problem in a population and is limited to the description of the occurrence of that problem. Descriptive studies are useful to health service planners in that they provide information that will help them develop appropriate services, allocate resources, decide on priorities and decide on priorities and target certain populations (Joubert & Ehrlich 2007:78). The researcher therefore used a descriptive study to describe the knowledge, attitude and use of contraceptives by the female learners. The researcher used information from this study

to develop recommendations which may be incorporated in the life-skills curriculum when teaching about teenage pregnancy and contraceptives.

3.4.3 Survey

Surveys are used to describe a technique of data collection in which questionnaires or personal interviews are used to gather data about an identified population (Burns & Grove 2005:239). Polit and Beck (2012:744) define a survey as a non-experimental research which obtains information about people's activities, beliefs, preferences and attitudes via direct questioning. A survey was appropriate for this study as the researcher will gather information from a portion of a population for the purpose of describing the knowledge, attitude and use of contraception in that population.

3.5 RESEARCH METHODS

Research methods are the techniques that the researcher uses to structure a study and to gather and analyse information relevant to the research questions (Polit & Beck 2012:12). The researcher used the following methods:

3.5.1 Population

Brink (2011:213) defines a population as a complete set of persons or objects that possess some common characteristic that is of interest to the researcher. The target population of this study was all female learners attending a particular high school in Mdantsane during year 2014.

3.5.2 Setting

Polit and Beck (2012:743) define a setting as the physical location and conditions in which data collection takes place in the study.

The setting for this study was the high school premises. The high school is located in Mdantsane which is in the Eastern Cape Province.

3.5.3 Sample and sampling method

Joubert and Ehlich (2007:94) define a sample as a set of individuals selected from a population and is representative of the study population. The process of selecting a group of people in which to conduct a study is called sampling (Burns & Grove 2005:341). There are many sampling methods that can be used in research. Convenience sampling method was used to select respondents for this study. According to Burns and Grove (2005:350), convenience sampling is a non-probability. In convenience sampling method subjects are included in the study because they happened to be in the right place at the right time. Available subjects are entered into the study until the desired sample size is reached. All available female learners aged 18-20 years and doing grade 10 to 12 during year 2014 were approached and asked to participate in the survey.

3.5.4 Eligibility criteria

Eligibility criteria are the list of characteristics that are essential for membership or eligibility in the target population (Burns & Grove 2005:342). In order for the respondents to be selected for this study, the following eligibility criteria had to be met:

Inclusion criteria: To be included in the study the learners had to be registered students at the selected high school during the year of data collection which was 2014. The learners had to be between the ages of 18-20 and be able to give full consent to participate in the study. In addition these learners had to be females doing grade 10-12 during year 2014. Females were chosen because they are the ones using contraception to prevent pregnancy.

Exclusion criteria: This study excluded all female learners aged 18-20 years and doing grade 10-12 that were not at school on the day of data collection. The study also excluded all female learners aged 18-20 years and doing grade 10-12 that did not give consent to participate in the study.

3.6 DATA COLLECTION

Data collection is the precise, systemic gathering of information relevant to the research purpose or the specific objectives, questions, or hypotheses of a study (Burns & Grove 2005:42). In this study, data collection was done using a semi-structured questionnaire designed by the researcher. The questionnaire was self-administered by the research respondents. Data was collected from 14:00 when the school was already out.

The deputy principal requested the class teachers to request female learners to remain in class for few minutes after school. The deputy principal then gave the researcher a chance to explain the study to the female learners that had remained. After giving the explanation, the researcher discussed consent form and those learners who were interested signed the consent form. The researcher then handed the questionnaires to the female learners that were interested in participating; others were asked to leave the classroom. The researcher was standing by, available for any questions or explanations that may be required. The researcher waited for those female learners that took the questionnaire to respond and when they had finished, researcher collected the questionnaires.

Type of information collected by the questionnaire included data on knowledge of the types of contraception, attitude towards the various types of contraception and the use of contraception, current and past use of contraceptives and possible side effects experienced.

3.6.1 Development of the questionnaire

The questionnaire was based on the literature review (see chapter 2) and other research instruments used in similar studies. The questionnaire was compiled and discussed with the researcher's supervisor and a statistician. Changes suggested by the supervisor and statistician were implemented prior to administering the questionnaire.

3.6.2 Advantages and disadvantages of a self-administered questionnaire

The following were the advantages and disadvantages of using the questionnaire in this study:

3.6.2.1 Advantages

Self-administered questionnaire requires that the respondents fill in the questionnaire by themselves (Joubert & Ehlich 2007:107). The advantages of this were that the respondents were free to respond honestly without fear of being judged by the researcher. On the side of the researcher, the advantage was that many questionnaires were completed at the same time and this saved time and transport costs.

3.6.2.2 Disadvantages

The disadvantages of a self-administered questionnaire were that some of the questions were misunderstood by the respondents and therefore gave responses that were not answering the question. The respondents did not answer all the questions and the researcher only realised this later during data analysis.

3.6.3 Pretesting of the questionnaire

Pretesting is the trial administration of a newly developed instrument to identify problems or assess time requirements (Polit & Beck 2012:738). No matter how carefully a data-collection instrument such as a questionnaire is designed, there is always a possibility of error, such as an ambiguous question that people cannot answer. It is therefore important to pre-test a questionnaire to safeguard against such errors (Babbie & Mouton 2001:644).

The questionnaire was pretested to ensure that information about all identified issues would be collected. This was also done to establish whether the questionnaire was clearly worded and would be clearly interpreted by the respondents. A pre-test included 2 researcher's colleagues, a statistician and 10 high school female learners aged 18-20. The learners who participated in pretesting of the questionnaire were excluded from participating in the actual study. After pre-testing the data was used to detect questions

that did not give similar responses. Such questions were rephrased and a question on last sexual activity was added.

3.7 RELIABILITY AND VALIDITY OF THE QUESTIONNAIRE

To ensure quality of the questionnaire the following were observed:

3.7.1 Reliability

According to Burns and Grove (2005:374), the reliability of a measure denotes the consistency of a measure obtained in the use of a particular instrument and is an indication of the extent of random error in the measurement method. Babbie (2001:143) defines reliability as that quality of a measurement method that suggests that the same data would have been collected each time in repeated observations of the same phenomenon.

To ensure reliability, the data collection instrument was pretested. After pre-testing some of the questions were rephrased for clarification and more questions were added. The questionnaire was self-administered by the respondents and steps to ensure confidentiality were explained to the respondents (Burns & Grove 2005:374).

3.7.2 Validity

According to Burns and Grove (2005:376), the validity of an instrument is a determination of the extent to which the instrument actually reflects the abstract construct being examined. The term validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration (Babbie & Mouton 2001:648).

To establish validity for this study the researcher did literature search and read widely about contraception, adolescents and young adults' knowledge, attitudes and use of contraceptives to ensure clear identification of what is to be measured. The researcher developed a highlight of what is to be measured, which was 1. Knowledge of contraception; 2. Attitudes towards contraception and 3. Use of contraception and then developed questions which could measure those variables. The initial questionnaire

was reviewed by the supervisor and a statistician who had experience in the research field and they offered suggestions for rewording and clarifications, the items were revised to reflect their recommendations.

3.8 DATA ANALYSIS AND MANAGEMENT

After collection, quantitative data was then captured on Microsoft excel and analysed using Stata software. Demographic characteristics were tabulated and analysed using percentages. Frequency bar charts were also used to visualise the data. Outcomes (knowledge, attitude and use) were cross tabulated against sexual activity and calculated the percentages. The responses were tabulated in percentages. The questionnaire had 1 open-ended question. The researcher went through the responses and picked up the frequently used responses. The researcher then uploaded the data on INVIVO software and ran the themes as queries in order to get the number of people that used those words.

3.9 ETHICAL CONSIDERATIONS

Ethical issues are the principles and values that help safeguard the rights and welfare of research respondents (Joubert & Ehlich 2007:52). This study also considered ethical issues because human were used as study respondents and their rights and welfare needed to be protected.

The research proposal was submitted by the Department of Health Studies Higher Degrees Committee, UNISA who gave ethical clearance.

Permission to conduct study: The ethics committee's duty is to ensure that respondents' rights will be protected and that the study is compliant to ethics guidelines. Permission to collect data was sought from the Eastern Cape Department of Education and the high school management of the school where the questionnaires was administered (Annexures B and C). Informed consent to participate in the study was also obtained from the respondents (Annexure D).

Maintaining privacy and confidentiality: South African Good Clinical Practise guidelines (2006:10) states that respondents' right to privacy must be protected at all

costs. This should be maintained by the use of appropriate precautions regarding respondent identifiers. In this study the respondents were not asked to write their names on the questionnaire, therefore their responses could not be associated with individuals. All consent forms and case report forms were kept in a locked cupboard and only the researcher, supervisor, and UNISA had access to the documents. Consent forms which are signed by respondents were kept separate from the completed questionnaires so that they could not be matched with the responses. During publication of results, names of respondents will not be mentioned.

Beneficence and non-maleficence: Beneficence was ensured by making the research known to the school teachers so that all female learners can benefit from the researcher's recommendations. Teachers can incorporate the researcher's recommendations into their life-skills curriculum. The possible harm was that learners may fear that their parents and teachers will find out about their contraceptive use. In an attempt to ensure safety of the information learners were not asked to write their names on the questionnaire, therefore their responses could not be associated with individuals.

Autonomy and respect for persons: According to South African Good Clinical Practise Guidelines (2006:12), potential respondents have to be well informed about the study prior participation. It states that informed consent is an essential component of ethical research. Researchers have a responsibility to ensure that research respondents are treated with respect and that they are given the opportunity to take control over their lives and their bodies. This can be obtained by giving the potential respondents all information honestly and to obtain informed consent or refusal from them (Joubert & Ehlich 2007:32). An information leaflet with all the study information was explained to the potential respondents.

They were also given a copy of the information leaflet to read and take home if they wished to do so. The respondents then signed informed consent before participating in the study.

Using learners for a survey, especially within the school premises could have ethical issues as the learners may not be sure of their rights to refuse from an adult. The teachers and principal were the ones generally informing the learners about the survey and introducing the researcher and that may have made the learners to be even more

afraid to refuse. To ensure that respondents voluntarily participated in the study, the researcher emphasized to them they have a right to refuse and to withdraw from the study and assured them that there wouldn't be any punishment.

Act on findings and publishing: The work of others was acknowledged and the findings were reported. The findings of this study were reported to the school where the research was conducted and to the Eastern Cape Department of Education.

3.10 CONCLUSION

This chapter discussed the research methodology of the study and described the research design, population, sample, data collection instrument and ethical considerations. Chapter 4 covers data presentation and analysis.

CHAPTER 4

DATA ANALYSIS AND PRESENTATION

4.1 INTRODUCTION

This chapter presents the data analysis and the findings. This chapter begins with a description of how data was collected; and the final section presents the findings from the analysis of data. The purpose of this study was to attain an understanding of knowledge, attitude and use of contraception amongst learners attending a high school in Mdantsane. The information collected was related to the objectives of the study which were to

- explore the knowledge of contraception amongst female learners attending a high school in Mdantsane
- describe the attitudes of the learners towards contraception use
- assess use of and factors that affect use of contraception amongst female learners attending a high school in Mdantsane

4.2 DATA COLLECTION AND MANAGEMENT

A self-administered questionnaire was used to collect data. The questionnaires were distributed to the respondents on the same day. The respondents were requested to complete the questionnaires and the researcher collected them on the spot, upon completion learners.

The questionnaire consisted of a total of 27 questions and four sections were constructed in order to achieve the study objectives as follows:

- Section A of the questionnaire dealt with the demographic information of the respondents.
- Section B dealt with respondents' knowledge of contraception.

- Section C dealt with the respondents' attitude towards contraceptives and contraceptive use.
- Section D dealt with respondents' use of contraceptives.

On completion of data collection, the questionnaires were checked by the researcher for completeness and accuracy before analysis. Questions that were not answered were assessed to check if they would affect the findings. It was noted it was commonly one (1) question which would not have a response, and thus the researcher created a data analysis section to indicate the no response. The unanswered questions were statistically not significant to can affect the findings, and thus were included in the findings to balance the total number of responses.

Accessing the learners at school posed some challenges to the process of data collection. The following were the challenges encountered during data collection:

- The researcher had to collect all the data on the same day as instructed by the deputy principal, this limited the time that the researcher spent with the learners.
- The teachers were spending a lot of time with the grade 12 learners preparing them for their matric examinations, for this reason the researcher had access to only a few grade 12 learners.
- The learners were very excited about the topic of contraceptives, they had many questions which the researcher could not answer as some were the questions that were in the questionnaire, e.g. Do you think an implant is safe for contraceptive use?; why do you stop menstruating when you are using contraceptives?; do you know morning after pills?; How many children do you have? What is your profession? The researcher noted down the questions and only responded to them after the learners had completed the questionnaire.

4.3 DATA ANALYSIS AND PRESENTATION

The analysis of data was done using Stata data analysis and statistical software. The information from questionnaires was loaded on the SDASS. Data is presented using numbers, means and percentages on tables and graphs. A total of 150 female learners (n=150) responded to the questionnaires.

4.3.1 Demographic data

The demographic information includes the respondents' age, school grade, dating status and parity (number of children). This demographic data was important to include as it provide a context to consider the research results pertaining to knowledge, attitude and use of contraception.

4.3.1.1 Age of respondents

Table 4.1 Age distribution of the respondents (n=150)

Age	Frequency	Percentage	Cumulative percentage
18 years	99	66.00	66.00
19 years	28	18.67	84.67
20 years	23	15.33	100.00
Total	150	100.00	

This table shows that the majority 66% (n=99) of the respondents were aged 18 years and were distributed through the grades 10, 11 and 12. The mean age of the respondents was 18.5.

There were 34% (n=51) respondents of age 19 and 20; this probably because most learners have left high school at these ages.

4.3.1.2 School grade of the respondents

Table 4.2 displays the school grade of the respondents.

Table 4.2 School grade of the respondents (n=150)

School grade	Frequency	Percentage	Cumulative percentage
Grade 10	55	36.67	36.67
Grade 11	66	44.00	80.67
Grade 12	29	19.33	100.00
Total	150	100.00	

This table shows that 36.67% (n=55) were doing grade 10; 44% (n=66) of the respondents were doing grade 11, and 33% (n=29) were doing grade 12. There were fewer grade 12 learners who responded to the questionnaire. This was because the teachers were busy with the grade 12 learners, they even had extra classes. The researcher could therefore access fewer grade 12 learners. Data related to school grades of the respondents is further correlated with the knowledge and use of contraception later in this chapter.

4.3.1.3 Dating status of the respondents

Table 4.3 indicates the dating status of the respondents

Table 4.3 Dating status (n=150)

Dating status	Frequency	Percentage	Cumulative percentage
Single/unmarried	74	49.33	49.33
Not married and living with partner	2	1.33	50.67
Have a boyfriend, but not staying together	74	49.33	100.00
Total	150	100.00	

Table 4.3 shows that respondents who are single and those that have boyfriends, but not staying with them were equal at 49.33% (n=74). There were very few, 1.33% (n=2) of respondents that were not married, but staying with their partners.

Although it is known that sometimes learners do get married while still attending school, none of the respondents were married. Dating status is further compared with the use of compared with the use of contraception.

4.3.2 Sexual practices

Sexual practices included the last sexual activity and marital status vs last sexual activity. Figure 4.1 depicts the last sexual activity of the respondents. Table 4.5: Dating status vs last sexual activity.

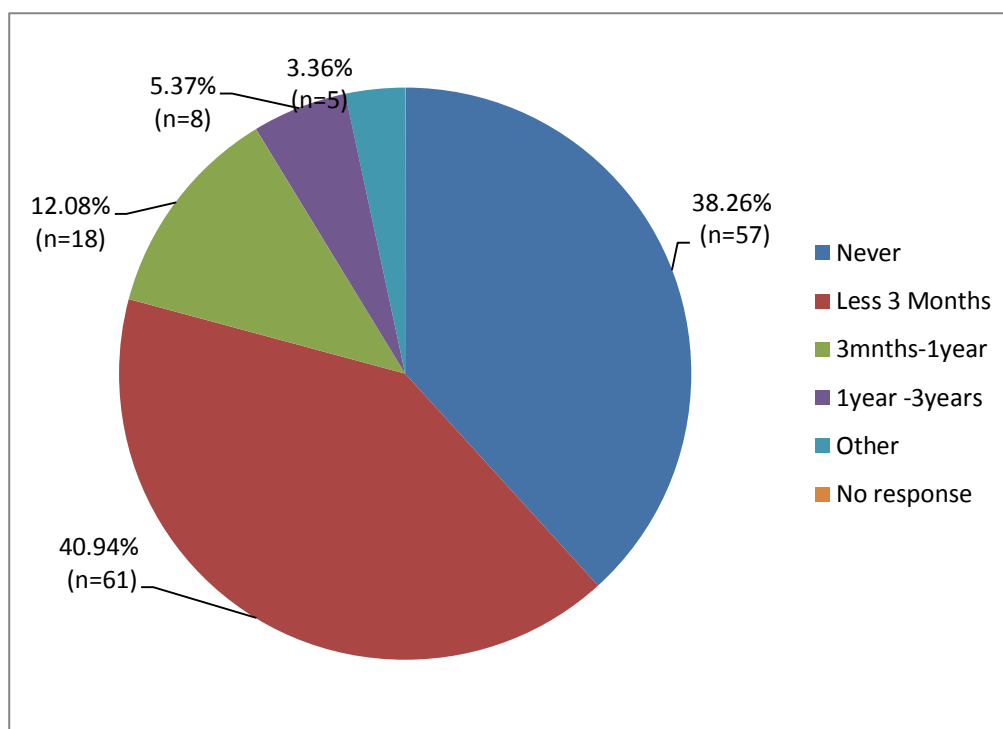


Figure 4.1 Last sexual activity (n=150)

4.3.2.1 Last sexual activity (n=150)

According to figure 4.1 62% (n=92), of the learners had engaged in sexual activity at some stage of their lives. A 3.3% (n=5) of the learners chose an option of “other”, which they did not further specify. A 38.26% (n=57) of the learners indicated they never had sexual activity. This could be related to the maturity and knowledge about sex.

It is important to note that nearly half of the total sample 40.94% (n=61) had engaged in sexual activity in a period of less than 3 months. This is especially important because this denotes a percentage of learners who are currently sexually active and would therefore be expected to be using contraceptives, unless they were planning to have children. The learners that last had sex in a period of 3 months-1 year (12.08%) were also regarded as being sexually active; because it is expected that a female that is still a learner and still staying with parents may go for about 3 months without getting a chance to engage in sexual activity.

A 5.37% (n=8) of the learners had last engaged in sexual activity within a period of 1 year-3 years. These learners were regarded as having been sexually active at some

stage of their lives. Some 3.3% (n=5) of the learners opted for “other” when answering this question. Therefore it means that these learners had also engaged in sexual activity sometime in their lives. Their period of last sexual activity was not clearly defined in this option of other, meaning that it might have been outside the periods indicated. Only one (n=1) respondent did not answer this question.

Table 4.5 Dating status vs last sexual activity (n=150)

Dating status	Last sexual activity						Total
	Never	< 3 months	3 months-1 year	1 year-3 years	Other	No response	
Single/unmarried	51	9	6	6	1	1	73
Not married, but living with partner	0	2	0	0	0		2
Have a boyfriend, but not staying together	6	50	12	2	4		74
Total	57	61	18	8	5	1	150

4.3.2.2 Dating status vs last sexual activity

According to table 4.5, a total of 48.99% (n=73) learners reported that they are single/unmarried. A 69.8% (n=51) of the single learners also never engaged in sexual activity, but 30.1% (n=22) did engage in sexual activity at some point in their lives. Only 1.3% (n=2) learners reported to be living with their partners, but not married. These learners also reported to have last had sex in less than 3 months. The number of learners that have boyfriends, but not staying with them was 49.66% (n=74). Fifty (67%) of these learners last engaged in sexual activity in less than 3 months and 16% (n=12) of the learners last engaged in sexual activity in a period within 3 months-1 year. Six (4.03%) of these learners reported to have never engaged in sexual activity, although they do have boyfriends. Only 2.7% (n=2) reported a last sexual activity of within 1 year-3 years.

4.3.3 Knowledge of contraception

Knowledge of contraceptives was tested by use of 5 questions. Four (4) of these questions were multiple choice questions and one (1) question was an open ended

question as the learners were required to answer it using their own words. The results to this section are as follows:

4.3.3.1 Understanding of contraception

Table 4.6 Understanding of contraceptives (n=150)

Contraception understanding	Frequency	Percentage
Pregnancy prevention	130	86.67
Prevention of STI	13	8.67
Other	6	4.00
No response	1	0.67
Total	150	100.00

Table 4.6 indicates that the majority of the learners, 87.67% (n=130) understood contraception as prevention of pregnancy. An 8.67% (n=13) of the learners understood contraception as prevention of sexually transmitted diseases (STI) and 4.00% (n=6) chose option "other". Out of these 6 learners that chose other, 1 specified that she understands contraception as condomising; another 1 specified that she understood contraception as sexual activity and 4 did not specify. 1 learner did not respond to this question.

4.3.3.2 Understanding of where contraceptives are accessed

Table 4.7 Contraceptives access (n=150)

Contraceptives' access	Frequency	Percentage
Clinic	117	78.00
Hospital	13	8.67
Pharmacy	4	2.67
Private doctor	2	1.33
Other	2	1.33
Multiple responses	11	7.33
No response	1	0.67
Total	150	100.00

Table 4.7 indicates that the majority 78.00% (n=117) of learners understood that contraceptives are accessed at clinics. This was expected as the main healthcare facility that has contraceptives services are the clinics. An 8.67% (n=13) of the learners

understood that contraceptives are access at hospital. A very small number of learners understood contraceptives to be accessed at pharmacy and at private doctor (see table 4.7). Two (1.33%) learners chose option ‘other’ and these learners did not specify where they understood contraceptives to be accessed. A total of 7.33% (n=11) learners indicated that contraceptives could be accessed at multiple places; 5 learners indicated that contraceptives can be accessed at clinics, hospitals, pharmacies and doctors; 3 chose clinic and pharmacy; 2 chose clinic and hospital; 1 chose clinic, hospital and pharmacy. This adds the number that chose a clinic to a total of 128; those that chose hospital to 21; those that chose pharmacy to 13 and those that chose private doctor to 7.

4.3.3.3 Familiar types of contraceptives

Table 4.8 Familiar types of contraceptives (n=150)

Familiar contraceptives	Frequency	Percentage
Oral contraceptives/pills	18	12.00
Injectables/(nuristerate/petogen)	106	70.67
Condoms	8	5.33
Intrauterine contraceptive device (IUCD)	0	0.0
Spermicide (film, tablet, foam, gel)	0	0.0
Other	8	5.33
Multiple responses	9	6.00
No response	1	0.67
Total	150	100.00

Table 4.8 indicates that the majority 70.67% (n=106) of learners were familiar with the injectable contraceptive. A 12.00% (n=18) learners were familiar with oral contraceptives/pills. Only few 5.33% (n=8) were familiar with condoms. This was probably because learners did not regard condoms as a type of contraceptive. This is therefore a reason for concern as it is expected that the clinics need to offer dual type of contraceptives, including full information on such. A 5.33% (n=8) chose an option ‘other’; 6 of these learners did not specify the other type(s) of contraceptives they were familiar with and 2 specified an implant as their familiar contraceptive.

Some of the learners, 6.00% (n=9) learners reported to be familiar with more than one type of contraceptive; 5 were familiar with oral contraceptives/pill and condoms; 2 were

familiar with oral contraceptives/pill and injectables (nuristerate/petogen) and the other 2 were familiar with injectables (nuristerate/petogen) and condoms. This increased the total that were familiar with oral contraceptives/pills to 25; total familiar with injectables (nuristerate/petogen) to 110 and to total that was familiar with condoms to 15.

None of the learners were aware of intrauterine devices and spermicides. 1 learner did not respond to this question.

4.3.3.4 Knowledge of contraceptives' side effects

Table 4.9 Contraceptives' side effects (n=150)

Contraceptives' side effects	Frequency	Percentage
Weight gain	38	25.33
Weight loss	5	3.33
Stops menstruation	69	46.00
Heavy menstruation	7	4.67
Loss of sexual mood	5	3.33
Acne/face pimples	5	3.33
Other	9	6.00
Multiple responses	11	7.33
No response	1	0.67
Total	150	100.00

Table 4.9 indicates that the majority of learners 46.00% (n=69) were aware that contraceptives stops menstruation as a side effect. The next familiar side effect was weight gain, known by 25.33% (n=38) of the learners. A 3.33% (n=5) were aware of weight loss; another 3.33% (n=5) were aware of loss of sexual mood and the other 3.33% (n=5) were aware of acne/face pimples. A 6.00% (n=9) learners chose an option of "other"; 7 of these learners did not specify the other side effects; 1 specified vomiting and the other 1 specified that contraceptives mess up uterus.

Some of the learners (n=11) chose more than 1 option of familiar side effects; 3 learners were aware of both weight gain and stops menstruation; 2 were aware of weight gain, weight loss, stops menstruation and heavy menstruation; other 2 were aware of heavy menstruation and stops menstruation and; other 2 learners were aware of weight gain, weight loss, stops menstruation, heavy menstruation, loss of sex mood

and acne/face pimples; and the other 2 learners were aware of weight gain, stops menstruation and heavy menstruation.

This increased the total number of learners that were aware of weight gain to 47; total aware of weight loss to 9; total aware of stops menstruation to 78; total aware of heavy menstruation to 13; total aware of loss of sexual mood to 7 and total aware of acne/face pimples to 7. One learner did not respond to this question.

4.3.3.5 Knowledge of how contraceptives work to prevent pregnancy

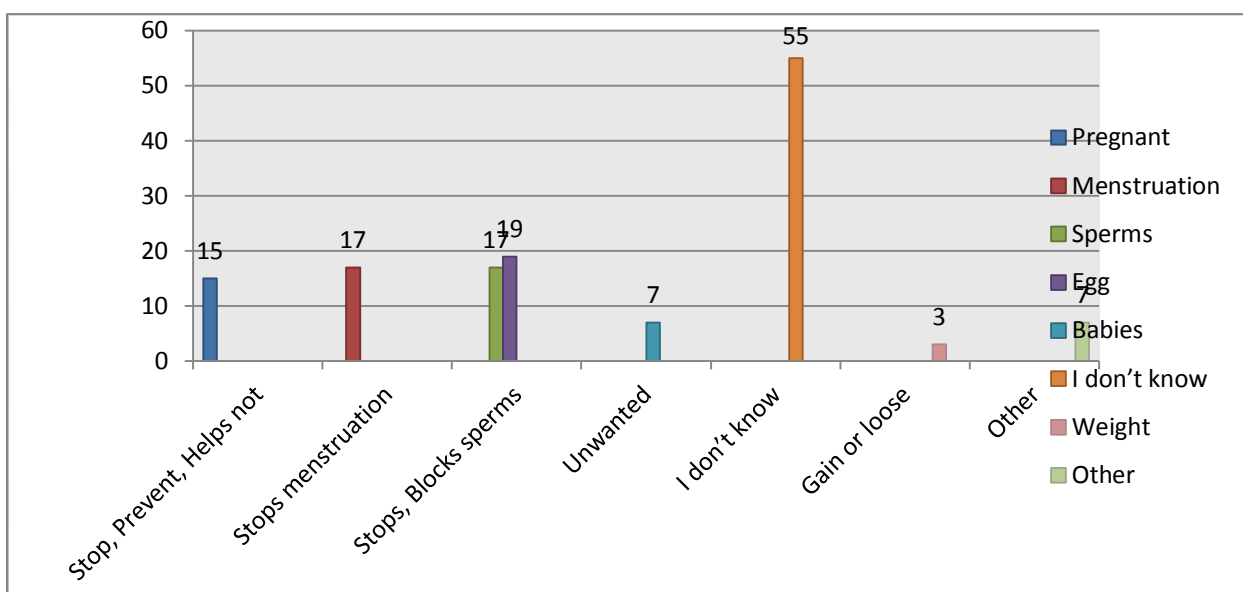


Figure 4.2 Knowledge of how contraceptives work to prevent pregnancy (n=150)

When learners were asked how contraceptives work to prevent pregnancy, the following responses were observed: stops pregnancy, prevents pregnancy, helps not to fall pregnant; by stopping menstruation; stops or blocks sperms; covers the egg; prevents unwanted pregnancy; gain or lose weight and other. The majority 36.67% (n=55) of the learners reported that they did not know how contraceptives work to prevent pregnancy (mechanism of action). Although many of the learners did respond to this question, their answers were incorrect. Only 24.00% (n=36) of the learners had an idea of how contraceptives work to prevent pregnancy.

4.3.3.6 Source of contraceptives' information

Table 4.10 Source of contraceptives' information (n=150)

Contraceptives information	Frequency	Percentage
Parents	42	28.00
School/teacher	43	28.67
Clinic/health facility/health worker	33	22.00
Media/TV/internet	8	5.33
Other	11	7.33
Multiple responses	12	8.00
No response	1	0.67
Total	150	100.00

Table 4.10 indicates that most of the learners got information on contraceptives from the school teacher/school 28.86% (n=43) and from parents 28.00% (n=42). A 22.15% (n=33) of the learners got the information from the clinic/healthcare facility/health care worker. There were few learners that got contraceptives information from the media/TV/internet (see table 4.10). A 7.38% (n=11) learners got the information from other sources namely; friends 5, different people 3, and the other 3 did not specify their source of contraceptives.

Some of the learners (n=12) reported to have received information on contraceptives from three sources, namely; parents; school/teacher; and clinic/healthcare facility/healthcare worker. This increases the total number of learners that received contraceptives information from parents to 54; total from school/teacher to 55 and total from clinic/health facility/healthcare worker to 45.

4.3.3.7 Knowledge of contraceptives among learners that reported to have engaged in sexual intercourse

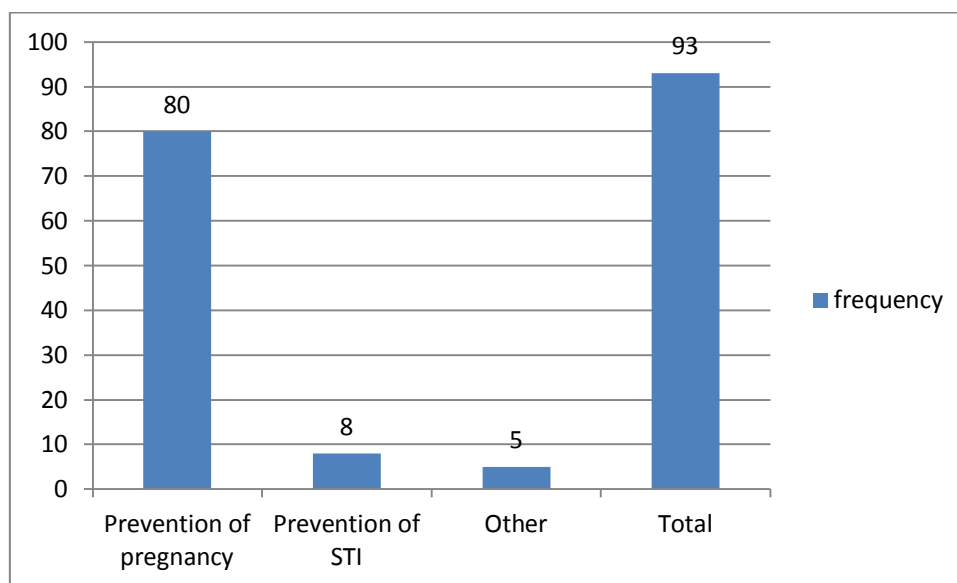


Figure 4.3 Understanding of contraceptives amongst learners that reported to have engaged in sexual activity (n=93)

Figure 4.3 indicates that the majority of these learners 86.02% (n=86) understood contraception as prevention of pregnancy. Only few learners 8.60% (n=8) understood contraception as prevention of STI. Five (5.38%) learners chose other options. Out of the 5 respondents that chose other, 4 did not specify any option and 1 specified that she understood contraception as “condomising”.

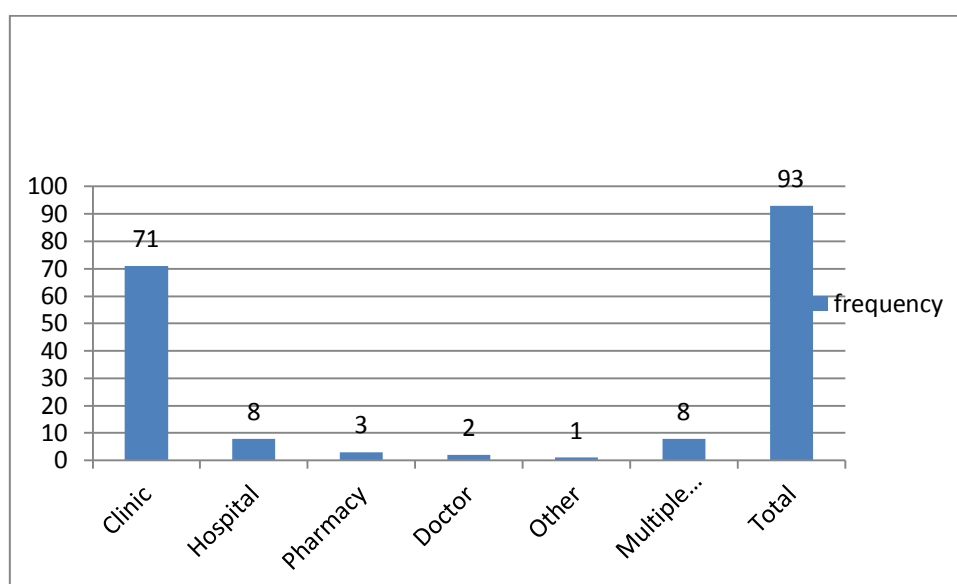


Figure 4.4 Knowledge of where contraceptives can be accessed amongst the learners that reported to have engaged in sexual activity (n=93)

Figure 4.4 indicates that the majority of the learners 76.34% (n=71) knew that contraceptives could be accessed in clinics. Only fewer learners 8.60% (n=8) knew that contraceptives could be accessed at hospitals. Very few learners 3.22% (n=3) knew that contraceptives could be accessed at pharmacies; 1.08% (n=1) knew that contraceptives could be accessed from a doctor. One (1.08%) learner chose option other and did not specify.

Some of the learners (n=8) reported that contraceptives could be accessed at multiple places; 5 indicated that contraceptives can be accessed at clinics, hospitals, pharmacies and doctors; 2 chose clinic and hospital; 1 chose clinic, hospital and pharmacy. This increases the total that knew contraceptives are accessible at clinics to 79; total that knew hospital to 16; total that knew pharmacy to 9 and total that knew private doctor to 6.

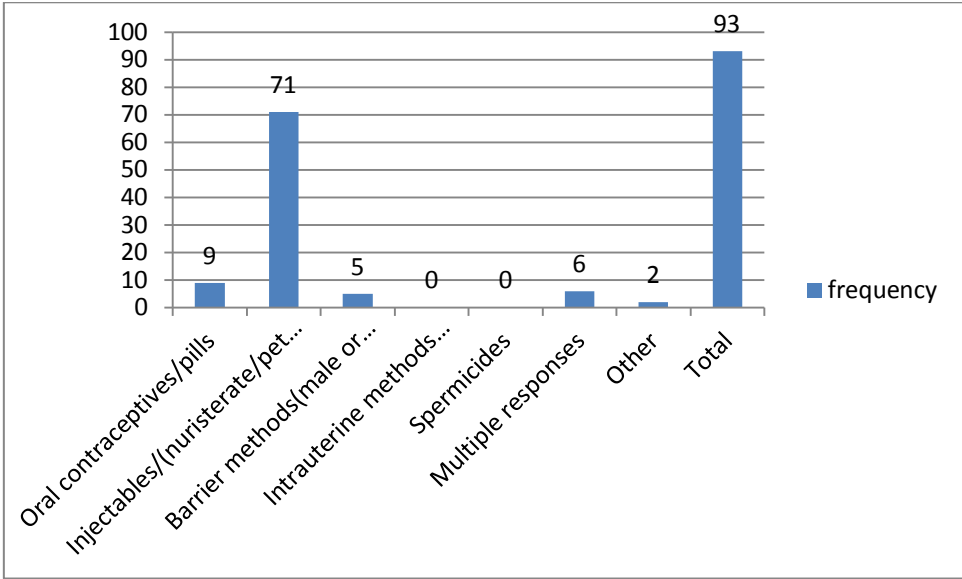


Figure 4.5 Types of contraceptives familiar to the learners that reported to have engaged in sexual activity (n=93)

Figure 4.5 indicates that the majority of these learners 76.34% (n=71) were familiar with injectable type of contraceptive, either nuristerate or petogen.

Only 9.68% (n=9) learners reported to be familiar with oral contraceptives/pills and even fewer 5.38% (n=5) were familiar with condoms. A 2.15% (n=2) of learners reported to

be familiar with other types of contraceptives, of which 1 specified that she was familiar with implant and the other learner did not specify the other type.

Some of these learners 6.45% (n=6) indicated that they were familiar with more than 1 type of contraceptive; 5 were familiar with oral contraceptives/pill and condoms and 1 was familiar with injectables (nuristerate/petogen) and condoms only. This increases the total of learners that were familiar with oral contraceptives/pills to 14; total familiar with injectables (nuristerate/petogen) to 72; total familiar with barrier methods/condoms to 11. None of the learners were familiar with Intrauterine Contraceptive Methods and Spermicides.

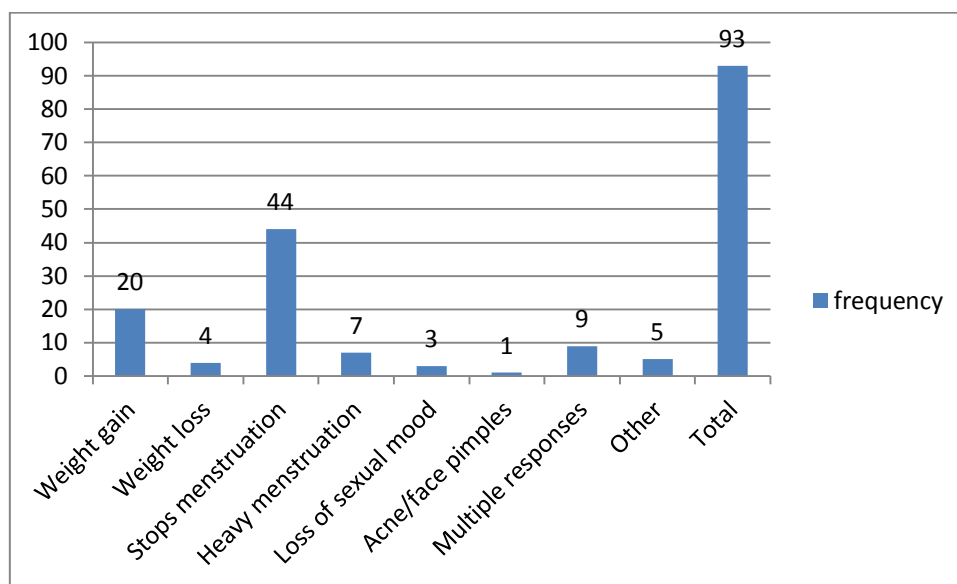


Figure 4.6 Contraceptives' side effects that were familiar to the learners that reported to have engaged in sexual activity (n=93)

Figure 4.6 indicates that the main side effect that majority of learners were aware of was that contraceptives stop menstruation, this was the case for 47.31% (n=44) of learners. The next side effect that 21.51% (n=20) of learners were aware of was weight gain. A fewer percentage 4.30% (n=4) of learners were aware of weight loss; 7.53% (n=7) learners were aware of heavy menstruation; 3.23% (n=3) learners were aware of loss of sexual mood and only 1.08% (n=1) were aware of acne/face pimples.

Some of these learners 9.68% (n=9) reported to be were aware of more than one side effects; 3 learners were aware of both weight gain and stops menstruation; 2 were

aware of weight gain, weight loss, stops menstruation and heavy menstruation; 2 learners were aware of weight gain, weight loss, stops menstruation, heavy menstruation, loss of sex mood and acne/face pimples; and the other 2 learners were aware of weight gain, stops menstruation and heavy menstruation. This increases the total number of learners that were aware of weight gain side effect to 29; total aware of weight loss to 8; total aware of stops menstruation to 53; total aware of heavy menstruation to 13; total aware of loss of sexual mood to 5 and total aware of acne/face pimples to 5.

4.3.4 Attitudes towards contraception

The learners' attitudes towards contraceptives were investigated by use of a 5 level qualitative scale. This scale was designed by the researcher after reviewing the literature. This scale contained 5 statements where the respondent would strongly disagree, disagree, be neutral, agree or strongly agree with each statement. This scale was designed in such a manner that those that agree and strongly agree with each statement would be those that have positive attitude.

Table 4.11 Learners' attitudes towards contraception (n=150)

Level of agreement/ statement	% Strongly disagree	% Disagree	% Neutral	% Agree	% Strongly agree	% No response	Total
I approve the use of contraceptives by school children.	4.00 (n=6)	17.33 (n=26)	8.00 (n=12)	47.33 (n=71)	22.67 (n=34)	0.67 (n=1)	100.00 (n=150)
It is better to use contraceptives than to fall pregnant.	3.33 (n=5)	2.00 (n=3)	2.00 (n=3)	48.66 (n=73)	42.67 (n=64)	1.33 (n=2)	100.00 (n=150)
Freely available contraceptives do not lead to promiscuity.	6.67 (n=10)	21.33 (n=32)	30.00 (n=45)	34.67 (n=52)	7.33 (n=11)	0	100.00 (n=150)
Contraceptives have more benefits than the problems they give.	0.67 (n=1)	21.33 (n=32)	16.00 (n=24)	46.67 (n=70)	14.00 (n=21)	1.33 (n=2)	100.00 (n=150)
There are enough contraceptive options to suit women's contraceptive needs.	2.00 (n=3)	17.33 (n=26)	12.67 (n=19)	42.67 (n=64)	24.67 (n=37)	0.67 (n=1)	100.00 (n=150)
TOTAL	25/5=5 (3.33%)	119/5=23.8 (15.87%)	103/5=20.6 (13.73%)	330/5=66 (44%)	167/5=33.4 (22.27%)	6/5=1.2 (0.8%)	750

Table 4.11 indicates that the majority of learners 47.33% agreed and 22.67% strongly agree with the statement that says they approve use of contraceptives by school children. Only fewer 17.33% disagree and even fewer 4.00% strongly disagree with this statement. The majority of learners agreed 48.66% and 42.67% strongly agreed with the statement that says it is better to use contraceptives than to fall pregnant. This gives a total of 91.33% (n=137) learners that agreed with this statement. Very few learners disagreed with this statement and only 2% were neutral.

There were more learners that agreed with the statement that says freely available contraceptives do not lead to promiscuity, 7.33 % (n=11) strongly agreed and 34.67 % (n=52) agreed. This gives a total of 42% (n=63) learners that were agreeing with this statement. There were also a significant number of learners that were disagreeing with this statement, 21.33 % (n=32) disagreed and 6.67 % (n=10) strongly disagreed. This gave a total of 28% of learners that were agreeing with this statement. There was also a big number 30% (n=45) of learners that were neutral in this statement.

The majority (60.67%) of the learners were agreeing with the statement that says contraceptives have more benefits that the problems they give, 46.67% (n=70) agree and 14.00% (n=21) strongly agree. There was a significant 22.00% of learners that disagreed with this statement, 0.67% strongly disagreed and 21.33% disagreed. The majority (67.34%) of learners were in agreement with the statement that said there are enough contraceptive options to suit women's contraceptive needs. Fewer learners disagreed with this statement, and 12.67% of the learners were neutral. Agreeing with this statement meant positive attitude, and there were also more than two thirds of the learners that agreed with it. In summary, 66.3% (n=93.4) of the learners had positive attitude towards contraceptives; 19.2% (n=28.8) of the learners had negative attitude towards contraceptives; 13.7% (n=20.6) were neutral and 0.8% (n=1.2) did not respond to the questions.

4.3.5 Use of contraceptives

This section was comprised of 10 quantitative questions of which some were multiple choices and some required yes/no answers. The aim of this section was to assess the number of learners who are currently using contraceptives and those that used contraceptives in the past. Amongst the learners that are currently using contraceptives,

this section also intended to assess the type of contraceptive in use and whether they are using contraceptives as prescribed. Amongst learners that used contraceptives in the past, this section also assessed the type of contraceptive that was used in the past and the reason for discontinuation of use. This section also assessed if learners were offered any other types of contraceptives other than the ones they are using or have.

Table 4.12 Use of contraceptives (n=150)

Use of contraceptives	Frequency	Percentage
Yes	66	44.00
No	84	56.00
Total	150	100.00

Table 4.13 Type of contraceptive in use (n=66)

Type in use	Frequency	Percentage
Oral contraceptives/pills	3	4.55
Injectable/(nuristerate/petogen)	51	77.27
Barrier methods/(male or female condoms)	7	10.61
Other	3	4.55
No response	2	3.03
Total	66	100.00

Table 4.14 Use of contraceptives in the past (n=84)

Past contraceptives use	Frequency	Percentage
Yes	30	36.59
No	52	63.41
No response	2	2.38
Total	84	100.00

Table 4.15 Type of contraceptive used in the past (n=30)

Type used in past	Frequency	Percentage
Oral contraceptives/pills	1	3.33
Injectables/(nuristerate/petogen)	28	96.55
No response	1	3.33
Total	30	100.00

Table 4.16 Reasons for discontinuation of contraceptives (n=30)

Reasons for discontinuation of contraceptives use	Frequency	Percentage
Side effects	16	53.33
Forgot to go to clinic	6	20.00
Long queues in clinic	2	6.67
Needed a break	4	13.33
Other	2	6.67
Total	30	100.00

Tables 4.1, 4.12, 4.13 and 4.14 indicate that out of 150 learners that responded to the questionnaire, 44.00% (n=66) were currently using contraceptives and 56.00% (n=84) were not using contraceptives. Out of the 66 learners that are currently using contraceptives; the majority 79.69% (n=51) were using injectable contraceptives; followed by only 10.94% (n=7) that were using condoms and even a smaller 4.69% (n=3) were using oral contraceptives. The other 4.69% (n=3) were using other type of contraceptive; 2 learners were using an implant and 1 did not specify the other type. Two (3.03%) of the 66 learners did not respond to this question.

Out of the 84 learners that are not currently using contraceptives, 36.59% (n=30) learners did use contraceptives in the past; 53.41% (n=52) learners never used contraceptives and 2(2.38%) learners did not respond to this question. Out of the 30 learners that used contraceptives in the past, 93.33% (n=28) were using injectables; only 3.33% (n=1) learner used oral contraceptives and 1 learner did not respond to this question. The 30 learners stopped using contraceptives and their reasons were; 53.33% (n=16) side effects; 20.00% (n=6) forgot to go to the clinic on their scheduled dates; 6.67% (n=2) long queues in the clinics and 13.33% (n=4) needed a break from the contraceptives. A 6.67% (n=2) learners had other reasons, 1 decided to abstain and the other learner did not specify the other reason.

Table 4.17 Learners that reported to have used contraceptives (n=96)

Methods	Frequency		Percentage		No response	Total
	Yes	No	Yes	No		
Were you ever offered other type of contraceptive?	23	71	24.47	75.53	2	96
Have you ever changed from 1 type of contraceptive to another?	17	77	18.09	81.91	2	96
Do you take contraceptives as prescribed?	48	46	51.06	49.46	2	96
Did you visit the clinic for contraceptives in the last 3 months?	53	41	56.38	43.62	2	96
Did you visit the clinic in the last 6 months?	51	43	54.26	45.74	2	96

Out of the 96 learners that were either using contraceptives at the time of the questionnaire and those that had used contraceptives in the past, 94 responded to the above questions and 2 did not respond. Of these 94 learners only 24.47% (n=23) learners were ever offered another type of contraceptive, the majority which is 75.53% (n=71) were never offered another type.

Only 18.09% (n=17) had changed type of contraceptive in use and majority of 81.91% (n=77) never changed the type of contraceptive.

Forty-eight (51.06%) of respondents were not taking contraceptives as prescribed, of which 62.50% (n=30) have reported to have stopped/discontinued use of contraceptives (see table 4.17). Fifty-three learners did visit the clinic for contraceptives in the last 3 months and 41 did not. 51 learners did visit the clinic in the last 6 months and 43 did not.

4.3.5.1 Use of contraceptives amongst learners who have engaged in sexual activity (n=93)

Table 4.18 Current use of contraceptives (n=93)

Use of contraceptives	Frequency	Percentage
Yes	51	54.84
No	42	45.16
Total	93	100.00

Table 4.19 Type of contraceptive currently in use (n=51)

Type in use	Frequency	Percentage
Oral contraceptives/pills	2	3.92
Injectables/(nuristerate/petogen)	39	76.47
Barrier methods(male/female condoms)	6	11.76
Other	2	3.92
No response	2	3.92
Total	51	100.00

Table 4.20 Use of contraceptives in the past (n=42)

Use of contraceptives in the past	Frequency	Percentage
Yes	28	66.67
No	14	33.33
Total	42	100.00

Table 4.21 Type of contraceptive used in the past (n=28)

Type of contraceptive used in the past	Frequency	Percentage
Oral contraceptives/pills	1	3.57
Injectables/(nuristerate/petogen)	27	94.42
Total	28	100.00

Table 4.22 Reasons for stopping/discontinuation of contraceptive use (n=28)

Reasons for discontinuation	Frequency	Percentage
Side effects	16	57.14
Forgot to go to clinic	4	14.29
Long queues in clinic	2	6.67
Needed a break	4	13.33
Other	2	6.67
Total	28	100.00

Tables 4.17, 4.18, 4.19, 4.20 and 4.21 indicate that out of the 93 learners that had engaged in sexual activity, 54.84% (n=51) were using contraceptives and 45.16% (n=41) were not using contraceptives. Out of the 51 that were using contraceptives, only 4.08% (n=2) were using oral contraceptives; the majority 79.59% (n=39) were using injectables and 12.24% (n=6) were using condoms. 2 of these learners were using other types of contraceptives, 1 was using an implant and the other 1 did not specify the type in use.

Out of the 42 learners that were not using contraceptives at the time of the questionnaire, 66.67% (n=28) reported to have used contraceptives in the past and 33.33% (n=14) never used contraceptives. Out of the 28 learners that used contraceptives in the past, the majority 94.42% (n=27) were using injectables and only 1 (3.57%) were using oral contraceptives. Reasons for discontinuation of use of contraceptives were mostly side effects (57.14%). Fewer learners quoted long queues, needed a break and forgot to go to the clinic on scheduled dates as their reasons. A 7.14% (n=2) learners had other reasons, of which 1 decided to abstain and the other 1 did not specify their reason.

Table 4.23 Cross tabulation of use of contraceptives amongst learners that had engaged in sexual activity (n=93)

Last sexual activity	Contraceptive use		No response	Total
	Yes	No		
<3 months	37	24		61
	60.66%	39.34%		100.00%
3 months-1 year	6	12		18
	33.33%	66.67%		100.00%
1 year-3 years	5	3		8
	62.50%	37.50%		100.00%
Other	3	2		5
	60.00%	40.00%		100.00%
Total	51	41	1	93
	55.43%	44.57%		100.00%

Table 4.23 indicates that out of the 61 learners that reported to have engaged in sexual activity in a period of less than 3 months, 60.66% (n=37) were using contraceptives and 39.34% (n=24) were not using contraceptives. This 39.34% is of serious concern as they are currently sexually active and therefore at high risk of falling pregnant while still at school. Out of the 18 learners that reported to have engaged in sexual activity in a period within 3 months – 1 year, 6 are using contraceptives and 12 are not using contraceptives. Out of the 8 learners that reported to have engaged in sexual activity in a period within 1 year – 3 years, 5 were using contraceptives and 3 were not using contraceptives. Out of the 5 respondents that had engaged in sexual activity in a period other than the ones that were specified in the questionnaire, 3 were using contraceptives and 2 were not using contraceptives.

4.8 DISCUSSION OF THE FINDINGS

According to the study findings, most of the learners knew the important basics around contraceptives. They had enough knowledge to influence whether to use or not to use contraceptives. This finding agrees with Bankole et al (2007:203) which states that most young people are informed about modern methods of contraception. These learners however did not know the details of the mechanism of action of contraceptives. There were few learners that did not even know that contraceptives are used to prevent pregnancy; this was rather a very low percentage contradicting the results of a qualitative study conducted by Kanku and Mash (2010:568) where they found that

teenagers knew almost nothing about contraception. The majority of learners in this study knew only clinic as a place to access contraceptives.

The type of contraceptive that was widely known and mostly used by the learners was the injectable contraceptives. These results concur with the results of a study that was conducted by Stephenson et al 2008:65 where the majority of women were using injectable contraceptives and only few were using pills and IUDs. These results however differ from the finding of study conducted by Jahnvi and Prata (2009:229) where more respondents knew about oral contraceptives, but did not know any other forms of contraception. A study conducted by Maja (2002:243) in Northern Tshwane, Gauteng found that the respondents were using a variety of contraceptive methods, such as the pill, injections, condoms and IUCDs. There is therefore conflicting evidence with regards to the most known and used type of contraceptive. This could be affected by the different areas in which the studies were conducted, meaning knowledge and use of different types of contraceptives differs from place to place.

Stopping of menstruation was the most commonly known side effect of contraceptives amongst these learners. This was expected as amenorrhea is the most commonly reported side effect of injectable contraceptives (Marshal & Jones 2011). There is a myth that when a person is not getting her menstruation, then the menstrual blood is blocked and this blockage is believed to cause back problems (Miller, Shane & Murphy 1998:16) this was possibly the reason why 57.14% of the 28 learners that reported to have stopped use of reported their reason as side effects. In a study conducted by Akers et al (2010:165) adolescent females and their families were also very concerned about the safety of menstrual irregularities associated with many hormonal contraceptive methods.

The main sources of contraceptives information for these learners were the school/school teacher followed by the parents. The school teacher was also the main source of contraceptives information in a study conducted by Mchunu et al (2012:431), followed by the clinic and then family. In this study there were very few learners that reported to have received the contraceptives information from the media. These results contradict the results from studies Jahnvi and Prata (2009:230), Kanku and Mash (2010:568) and Bankole et al (2007:203) which agreed that the main source of

contraceptive information for the young women is the peer groups, the media and internet.

There were not many researches in literature that investigated learners' attitudes towards contraceptives. Those studies that were there, there were no clear definitions of negative and positive attitude and how these were measured. This study found that the majority of learners had positive attitude towards contraceptives. The learners felt that contraceptives should be used by school children and that it is better to use contraceptive than to fall pregnant. There were, however some few learners that were categorised as having negative attitude and those that were neutral. These results were similar to those of a studies conducted by Onyensoh, Govender and Tumbo (2013:230) and Maja (2002:233) where female respondents had positive attitude towards contraceptives and would prefer not to have sex if their partners wanted to do so without contraception. Positive attitude from the community is also perceived to play an important role in an individual attitude towards contraception Stephenson et al (2007:1237).

According to the findings of this study, the majority of learners were not using contraceptives at the time of this study. There were, however those that did use contraceptives in the past, but had stopped using. As already indicated above, more than two thirds of the learners were using an injectable contraceptive. Even the learners that had stopped using contraceptives, they were using the same injectable contraceptives in the past. There were very few learners that were using other types of contraceptives.

The most common reason for stopping use of contraceptives was side effects. This was consistent with the study conducted by Frost, Lindberg and Finer (2012:115) where they found that fear of side effects was associated with reduced use of hormonal contraceptives. Only few learners mentioned the other service related factors as the reason for stopping use and none of the learners reported personal related factors. The finding which was also interesting in this study was that there were very few learners that were using condoms and there were no learners that reported to be using dual method.

This finding was similar to that of a study that was conducted by Mchunu et al (2012:433) which showed that very few young female respondents used a condom when they were with their non-regular partner. This is of utmost importance because the WHO (2009:6) emphasises use of both a contraceptive method and condom (dual method). The WHO (2009:6) states that health care providers should strongly recommend dual protection to all users that are at high risk of STI/HIV infection.

As expected, the majority of learners that reported to have engaged in sexual activity were using contraceptives and some have used contraceptives in the past. However, there are few learners that, although they had engaged in sexual activity, they reported to have never used contraceptives. These learners were at a high risk of falling pregnant. This study however did not check if any of these learners were planning to fall pregnant.

4.5 CONCLUSION

This chapter analysed and presented the results of the questionnaire that was given to the female learners of a high school in Mdantsane. The findings showed that the learners had good knowledge on contraceptives, especially the important basics.

The findings also revealed that majority of the learners have positive attitude towards contraceptives, although there are those few that have negative attitude. The findings also revealed that learners do use contraceptives, especially the learners that do engage in sexual activity. According to these findings, there are few learners that are not using or never used contraceptives and yet have engaged in sexual activity. The reasons for discontinuation of contraceptive were mainly side effects and learners most learners were never offered other types of contraceptives, which would be better than stopping altogether.

The next chapter discusses conclusions, recommendations and limitations.

CHAPTER 5

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter summarises the findings of this in order to draw conclusions and recommendations. This chapter will also mention the limitations of this study

5.2 SUMMARY OF THE STUDY

The study is divided into 5 chapters: chapter 1: overview of the study, chapter 2: literature review, chapter 3: research methodology, chapter 4: data analysis and presentation and chapter 5: conclusions, limitations and recommendations. All these chapters played a specific role in completion of the study.

5.2.1 Overview of the study

This chapter presented background to the research problem and problem statement, purpose and objectives of the study, and introduced the methodology which provided guidelines of how the study was to be conducted. Furthermore, this chapter defined the concepts that would be dealt with in the study. These concepts were attitude towards contraception, knowledge of contraception, use of contraception and learners.

5.2.2 Literature review

This was an important chapter as it provided a reflection of what other researchers have said in relation to the topic. This chapter provided description of contraception, including its advantages and disadvantages, an overview of contraception in South Africa, an overview of learners and contraception including their knowledge, attitudes and use. Amongst other things, this chapter provided the possible reasons why female learners do not use contraceptives to prevent unplanned pregnancies.

5.2.3 Research methods and design

This study used a quantitative, descriptive survey. Data was collected using a self-administered questionnaire which was administered to a total of 150 female learners.

These learners were doing grade 10-12 and were aged 18-20 years. After explaining the study, each learner was given their own questionnaire and the researcher was around to clarify any questions that may arise. A self-administered questionnaire was suitable for this study because there were sensitive questions on sexuality and use of contraceptives. The learners would've been uncomfortable discussing these kinds of questions with the researcher, who was an adult.

5.2.4 Summary of research findings

One of the key chapters of this study was chapter 4 which was the analysis and presentation of the research findings. This chapter used tables and figures to give more clarity to the presented data. There are some deductions after the tables and figures which summarised the findings on the table or figure.

The data that was presented in this chapter included demographic characteristics of the female learners. This chapter further presented data on knowledge, attitudes and use of contraception amongst these female learners.

5.2.4.1 Knowledge of contraception

This study found that most of the learners knew the important basics around contraceptives. They had enough knowledge to influence whether to use or not to use contraceptives. They, however, did not know the details on mechanism of action and side effects of various types of contraceptives.

5.2.4.2 Attitudes towards contraception

This study found that the majority of learners had positive attitude towards contraceptives, although there were some few learners that were categorised as having negative attitude and those that were neutral.

5.2.4.3 Use of contraceptives

This study found that the majority of learners were not using contraceptives at the time of data collection. There were, however those that did use contraceptives in the past, but had stopped. The main reason for stopping use of contraceptives was the side effects, of which the main familiar side effect is amenorrhea (stops menstruation).

5.3 CONCLUSIONS

This study used 150 female learners to conclude that the majority of learners have the basic knowledge on contraception and have positive attitudes towards contraception. The study also concluded that amongst those learners that are expected to be using contraception, the majority is using it. Only few learners are not using contraception and even the majority of those learners have used contraception in the past.

This study also concludes that the learners are mainly offered injectable contraceptives and most are never offered any other type of contraceptive. This is the main reason for discontinuation of contraceptive use because the injectable contraceptives cause amenorrhea, which is very unacceptable to most women. The results indicated a need for more intense education on contraception, specifically with regards to young women for all affected parties; parents, teachers and nurses.

5.4 RECOMMENDATIONS

Recommendations of this study have been categorised into educating learners, educating parents and teachers and more use of media.

5.4.1 Educating learners

The learners need to be educated about the mechanisms of action and side effects of various contraceptive options. This may increase uptake, decrease discontinuation of use and correct common myths. The learners need to know all available types of contraceptives in order to make an informed choice. This will also help them change from one option to another, instead of stopping contraception altogether. This is clearly stated by the WHO (2009:3), that clients should be given adequate information in order to make an informed, voluntary choice of a contraceptive method.

5.4.2 Educating parents and teachers

If parents and educators are the main source of contraceptives information for these learners, then they also need to be well informed on all types, mechanisms of action and side effects. This will help in making sure that the learners get correct information. Teachers need to have brochures with contraception information available at schools. These will serve as an aid when they are giving talks on contraception. Parents also need to be skilled and encouraged to talk about sexuality and contraception to their children. At the time of data collection, there were less than half of learners that got information from their parents.

5.4.3 Use of media to disseminate information

The government needs to ensure that information on contraception is made more available on the media, including television and radio. This information will help the learners whose parents are not comfortable in discussing such issues as the school can only dedicate so much time to such talks.

5.4.4 Recommendations for further research

More research needs to be done, especially in the Eastern Cape to find out why learners still have unplanned pregnancies when they know about contraception. Perhaps this research should focus on the learners that are attending the clinic for termination of pregnancy. The pregnancies of these learners are obviously not planned and unaccepted.

5.5 CONTRIBUTIONS OF THE STUDY

The findings of this study gave an insight on how much knowledge do learners attending a high school in Mdantsane have on contraception. These findings also gave an idea of those learners' attitude on contraception and their use of contraception. These study findings will inform the school to improve their curriculum content related to contraceptives. This, in turn could enable development of reality-based integrated programmes which will facilitate effective use of contraception by learners to prevent unplanned pregnancies.

5.6 LIMITATIONS OF THE STUDY

The limitations to this study were that the sampling method used was convenience sampling which did not give female learners an equal chance to be included in the study. Sample size was also small therefore the study results cannot be generalizable to all high school female learners. This study could also be limited by the sensitivity of the nature of questions as use of contraception is associated with sexual activity. The female learners may have therefore reported less or reported what they thought was acceptable to the researcher who was an adult (Hofstee 2006:117-118). Another limitation was that the questionnaire was in English. Although the researcher explained the questions in Xhosa, the learners may have misinterpreted some questions when they were responding. Also the male learners were not included in the study.

5.7 CONCLUDING REMARKS

The data presented in this study provided sufficient information regarding the objectives of the study. The findings showed that although the learners do not have sufficient knowledge on contraceptives, they do have basic information to influence attitude and use. The researcher hopes that the recommendations made in this study will help the teachers of the high school, the learners as well as the community of Mdantsane.

LIST OF SOURCES

Adewunmi, AA, Rabi, KA, Tayo, AO, Ottun, TA, Adeboye, BS & Akindele, RA. 2012. Knowledge of emergency contraception among students in a tertiary institution in a developing country. *Open Access Journal of Contraception* (3):23-26.

Ahmed, FA, Moussa, KM, Petterson, KO & Asamoah, BO. 2012. Assessing knowledge, attitude and practice of emergency contraception: A cross-sectional study amongst Ethiopian undergraduate female students. *BMC Public Health* 12:110. Available at: <http://www.biomedcentral.com/1471-2458/12/110> (accessed 17 January 2014).

Akers, AY, Schwarz, EB, Borrero, S & Corbie-Smith, G. 2010. Family discussions about contraception and family planning: A qualitative exploration of black and adolescent perspectives. *Perspectives on Sexual and Reproductive Health* 42(3):160-167.

Babbie, ER & Mouton, J. 2001. *The practice of social research*. USA: Oxford University Press.

Bankole, A, Ahmed, FH, Neema, S, Ouedraogo, C & Konyani, S. 2007. Knowledge of correct condom use and consistency of use among adolescents in four countries in sub-Saharan Africa. *African Journal of Reproductive Health* 11:198-220.

Benebo, KD. 2006. The community-level effects of women's education on reproductive behavior in rural Ghana. *Demographic Research* 14(20):485-508.

Brink, HI. 2011. *Fundamentals of research methodology for health care professionals*. 3rd edition. Cape Town: Juta.

Brink, H, Van der Walt, C & Van Rensburg G. 2008. *Fundamentals of research methodology for health care professionals*. 2nd edition. Cape Town: Juta.

Burlone, S, Edelman, AB, Caughey, AB, Trussell, J, Dantas, S & Rodriguez, MI. 2013. *Contraception* 87(2):143-148.

Burns, N & Grove, SK. 2005. *The Practice of nursing research: conduct, critique and utilization*. 5th edition. USA: Elsevier.

Cleland, J, Bernstein, S, Ezeh, A, Glassier, A & Innis, J. 2006. Family planning: The unfinished Agenda. *Lancet* 368:1810-1827.

Contraceptive choices for young people: Clinical effectiveness unit. 2010. Faculty of Sexual and Reproductive Healthcare. England.

Crede, S, Harries, J, Constant, D, Hoke, TH, Green, M & Moodley, J. 2010. Is 'planning' missing from our family planning services? *South African Medical Journal* 100(9):597.

Creecy, B. 2013. *The role schools and stakeholders can play in reducing teenage pregnancy: Keynote address by Gauteng Education MEC*. Available at: <http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=35427&tid=103254> (accessed 14 July 2013).

Curson, P. 2011. A world of 7 billion people. *Lancet* 378(9802):1527.

Downey, L. 2014. *Birth control advantages and disadvantages*. Available at: <http://www.livestrong.com/article/38427-birth-control-advantages-disadvantages/> (accessed 27 November 2014).

Dreyer, G. 2012: *Contraception: A South African perspective*. Pretoria: Van Schaik.

Dusetzina, SB, Dalton, VK, Chernew, ME, Pace, LE, Bowden, G & Fendrick, AM. 2013. Cost of contraceptive methods to privately insured women in the United States. *Women's Health Issues* 23(2):69-71.

French, K. 2009. Long-acting reversible contraceptives. *Primary Health Care* 19(4):40-46.

Frost, JJ, Lindberg, LD & Finer, LB. 2012. Young adults' contraceptive knowledge, norms and attitudes: Associations with risk of unintended pregnancy. *Perspectives on Sexual and Reproductive Health*. 44(2):107-116.

Gillespie, D, Bradley, H, Woldegiorgis, M, Kidanu, A & Karklins, S. 2009. Integrating family planning into Ethiopian voluntary testing and counselling programmes. *Bull World Health Organ* 87:866-870.

Grove, SK, Burns, N & Gray, JR. 2013. *The practice of nursing research: appraisal, synthesis and generation of evidence*. 7th edition. St Louis: Elsevier.

Jahnavi, G & Patra, S.R. 2009. Awareness regarding contraception and population control among school going adolescents. *East Africa Journal of Public Health* 6(3):229-231.

Jewkes, R, Morrell, R & Christofides, N. 2009. Empowering teenagers to prevent pregnancy: lessons from South Africa. *Culture, Health and Sexuality: An international Journal for Research, Intervention and Care*. 11(7):675-688. Available at: <http://dx.doi.org/10.1080/13691050902846452> (accessed 03 May 2014).

Joubert, G & Ehrlich, R. 2007. *Epidemiology: A research manual for South Africa*. 2nd edition. Cape Town: Oxford University Press.

Hofstee, E. 2006. *Constructing a good dissertation: a practical guide to finishing a masters, MBA or PHD on schedule*. South Africa: Interpak Books.

Hubacher, D, Mavranezouli, I & McGinn, E. 2008. Unintended pregnancy in sub-Saharan Africa: magnitude of the problem and potential role of contraceptive implants to alleviate it. *Contraception* 78:73-78.

Kanku, T & Mash, R. 2010. Attitudes, perceptions and understanding amongst teenagers regarding teenage pregnancy, sexuality and contraception in Taung. *South African Family Practice Journal* 52(6):563-572.

Kaufman, CE. 2000. Reproductive control in apartheid South Africa. *Population Studies* 54(1):105-114.

Kaufman, CE, De Wet, T & Stadler, J. 2001. Adolescent pregnancy and parenthood in South Africa. *Studies in Family Planning* 32(2):147-160.

Kirby, D. 2007. *Research findings on programs to reduce teen pregnancy and sexually transmitted diseases*. Washington, DC: The National Campaign to Prevent Teen and Unplanned Pregnancy.

Maja, TMM. 2002. Contraceptive practices in Northern Tshwane, Gauteng Province. Unpublished D Litt et Phil. Unisa. Pretoria.

Makiwane, M. 2010. The child support grant and teenage childbearing in South Africa. *In Development Southern Africa* 27(2):193-204.

Manena-Netshikweta, ML. 2007. Knowledge, Perceptions and attitudes regarding contraception among secondary school learners in the Limpopo province. Unpublished D Litt et Phil. Unisa: Pretoria.

Marston, C & King, E. 2006. Factors that shape young people's behaviour: a systematic review. *Lancet* 368:1581-1586.

Mchunu, G, Peltzer, K, Tushana, B & Seutlwadi, L. 2012. Adolescent pregnancy and associated factors in South African youth. *African Health Sciences* 12(4):426-434.

Miller, ER, Shane, B & Murphy, E. *Contraceptive safety: rumors and realities*. 2nd edition. Available at: http://www.prb.org/pdf/ContraceptiveSafety_Eng.pdf (accessed 27 November 2014).

Njagi, F & Maharaj, P. 2006. Access to voluntary counselling and testing services: Perspectives of young people. *South African Review of Sociology* 37(2):113-127.

Oni, TE, Prinsloo, EAM, Nortjie, JD & Joubert, G. 2005. High school students' attitudes, practices and knowledge of contraception in Jozini, Kwazulu-Natal. *South African Family Practice* 47(6):54-57.

Onyensoh, O, Govender, I & Tumbo, J. 2013. Knowledge of, attitude towards, and practices of contraception in high school pupils in Tswaing subdistrict, North West Province. *South African Journal of Epidemiological Infection* 28(4):227-232.

Oxford English Mini Dictionary. 2007. Sv "attitude", "knowledge", "learner", "use". New York. Oxford University Press.

Panday, S, Makiwane, M, Ranchod, C & Letsoalo, T. 2009. *Teenage pregnancy in South Africa – with a specific focus on school-going learners*. Child, Youth, Family and Social Development, Human Sciences Research Council. Pretoria. Department of Basic Education.

Polit, DF & Beck, CT. 2012. *Nursing research: generating and assessing evidence for nursing practice*. Philadelphia: Wolters Kluwer Health/ Lippincott Williams & Wilkins.

Prata, N, Weidert, K & Sreenivas, A. 2012. Meeting the need: Youth and family planning in sub-Saharan Africa. *Contraception* 88(1)83-90.

Reddy, SP, James, S, Sewpaul, R, Koopman, F, Funani, NI, Sifunda, S, Josie, J, Masuka, P, Kambaran, NS & Omardien, RG. 2008. *Umthente Uhlaba Usamila: The South African Youth Risk Behaviour Survey*. Cape Town: South African Medical Research Council.

Rocca, CH, Schwarz, EB, Stewart, FH, Darney, PD, Raine, TR & Harper, CC. 2007. Beyond access: acceptability, use and non-use of emergency contraception among young women. *American Journal of Obstetrics and Gynaecology* 196(1):29.

South Africa (Republic). Department of Health. 2006. *Good clinical practice guidelines in the conduct of clinical trials with human participants in South Africa*. Pretoria. Government Printer.

South African (Republic). Department of Education. 2007. *Measures for the prevention and management of learner pregnancy: Choose to wait for a brighter future*. Pretoria. Government Printer.

South Africa (Republic). Department of Health. 2009. *Policy framework for the provision and use of contraception*.

Available

at: www.sun.ac.za/ruralhealth/ukwandahome/rudasaresources2009/DOH/24.%20contraceptionPDF (accessed 14 Jan 2015).

South Africa (Republic). Department of Health. 2012. *National contraception and fertility planning policy and service delivery guidelines: A companion to the national contraception clinical guidelines*. Pretoria. Government Printer.

Stephenson, R, Baschieri, A., Clements, S, Hennink, M & Madise, N. 2007. Contextual Influences on Modern Contraceptive Use in sub-Saharan Africa. *American Journal of Public Health* 97(7):1233-1240.

Stephenson, R, Beke, A & Tshibangu, D. 2008. Contextual influences on contraceptive use in the Eastern Cape, South Africa. *International Family Planning Perspectives* 34(2):62-70.

Stommel, M & Wills, C. 2004. *Clinical research: concepts and principles for advanced practice nurses*. Philadelphia. Lippincott Williams & Wilkins.

Trussell, J, Henry, N, Hassan, F, Prezioso, A, Law, A & Filonenko, A. 2013. Burden of unintended pregnancy in the United States: potential savings with increased use of long-acting reversible contraception. *Contraception* 87(2):154-161.

Trussell, J, Lalla, AM, Doan, QV, Reyes, E, Pinto, L & Gricar, J. 2009. Cost effectiveness of contraceptives in the United States. *Contraception* 79:5-14.

Van der Walt, BH & Van Rensberg, G. 2008. *Fundamentals of research methodology for health care professionals*. Cape Town: Juta.

WHO see World Health Organization.

Williamson, LM, Parkes, A, Wight, D, Petticrew, M & Hart, GJ. 2009. *Limits to modern contraceptive use among young women in developing countries: a systematic review of qualitative research*.

Available at: <http://www.reproductive-health-journal.com/content/6/1/3> (accessed 23 June 2012).

World Health Organization. 2009. *Medical eligibility criteria for contraceptive use: A WHO family planning cornerstone*. 4th edition. Reproductive Health and Research. Report of the WHO Reproductive Health and Research Committee. Geneva: WHO.

World Health Organization. 2011. *Family planning: a global handbook for provider: evidence-based guidance developed through worldwide collaboration*. Geneva: WHO.

World Health Organization. 2012. *Emergency contraception. Fact sheet N 244*.

Available at: <http://www.who.int/mediacentre/factsheets/fs244/en/> (accessed 08 January 2014).

Wood, K & Jewkes, R. 2006. Blood blockages: Barriers to adolescent contraceptive use in South Africa. *Reproductive Health Matters* 14(27):109-118.

Zungu, LT & Manyisa, ZN. 2009. Factors contributing to pregnancies among student nurses at a nursing college in Mpumalanga province, South Africa. *Africa Journal of Nursing and Midwifery* 11(2):61-74.

ANNEXURE A: ETHICAL CLEARANCE CERTIFICATE



**UNIVERSITY OF SOUTH AFRICA
Health Studies Higher Degrees Committee
College of Human Sciences
ETHICAL CLEARANCE CERTIFICATE**

HS HDC/167/2013

Date: 6 March 2013 Student No: 4514-128-2
Project Title: Knowledge, attitude and use of contraceptives amongst female learners attending a high school in Mdantsane.
Researcher: Nolundi Thembisa Mshweshwe
Degree: Masters in Public Health Code: DIS4986
Supervisor: Dr MC Matlakala
Qualification: D Litt et Phil
Joint Supervisor: -

DECISION OF COMMITTEE

Approved



Conditionally Approved



**Prof L Roets
CHAIRPERSON: HEALTH STUDIES HIGHER DEGREES COMMITTEE**

Prof MM Moleki

ACTING ACADEMIC CHAIRPERSON: DEPARTMENT OF HEALTH STUDIES

PLEASE QUOTE THE PROJECT NUMBER IN ALL ENQUIRES

ANNEXURE B: LETTER TO REQUEST PERMISSION TO CONDUCT THE STUDY

750 n.u. 9
Mdantsane
5219

The School Management
Masixole High School
Mdantsane

Dear Sir/Madam

REQUEST TO CONDUCT A SURVEY IN YOUR SCHOOL

SURVEY TITLE: KNOWLEDGE, ATTITUDES AND USE OF CONTRACEPTIVES AMONGST LEARNERS ATTENDING A HIGH SCHOOL IN MDANTSANE

I am Nolundi Thembisa Mshweshwe-Pakela, currently doing master of Public Health with the University of South Africa. As part of my studies, I have to conduct a research project which is the thesis part of the course. I have come up with the above title and therefore request permission to conduct the survey at Masixole high school located at n.u. 4 in Mdantsane. The research proposal has been approved by the UNISA ethics committee and the Eastern Cape Department of Education (see attached documents).

I have also attached a copy of the protocol, consent form and the questionnaire.

Yours truly

Name: Nolundi Mshweshwe-Pakela
Student no.: 45141282

ANNEXURE C: APPROVAL TO CONDUCT A STUDY



STRATEGIC PLANNING POLICY RESEARCH AND SECRETARIAT SERVICES
Steve Vukile Tshwete Complex • Zone 6 • Zwelitsha • Eastern Cape
Private Bag X0032 • Bisho • 5605 • REPUBLIC OF SOUTH AFRICA
Tel: +27 (0)40 608 4773/4035/4537 • Fax: +27 (0)40 608 4574 • Website: www.ecdoe.gov.za

Enquiries: B Pamla

Email: babalwa.pamla@edu.ecprov.gov.za

Date: 08 May 2014

Mrs. Nolundi Thembisa Mshweshwe-Pakela

73 Albartos Cove

Firefinch Street

Albertsdal Heights

1448

Dear Mrs. Mshweshwe-Pakela

PERMISSION TO UNDERTAKE A MASTERS THESIS: KNOWLEDGE, ATTITUDES AND USE OF CONTRACEPTION AMONGST FEMALE LEARNERS ATTENDING A HIGH SCHOOL IN MDANTSANE

1. Thank you for your application to conduct research.
2. Your application to conduct the above mentioned research at Masixole Secondary School under the jurisdiction of East London District of the Eastern Cape Department of Education (ECDoE) is hereby approved on condition that:
 - a. there will be no financial implications for the Department;
 - b. institutions and respondents must not be identifiable in any way from the results of the investigation;
 - c. you present a copy of the written approval letter of the Eastern Cape Department of Education (ECDoE) to the Chief Directors and Directors before any research is undertaken at any institutions within that particular district;
 - d. you will make all the arrangements concerning your research;
 - e. the research may not be conducted during official contact time, as educators' programmes should not be interrupted;



ANNEXURE D: INFORMATION LEAFLET AND INFORMED CONSENT

STUDY NUMBER: 45141282

STUDY TITLE: Knowledge, attitudes and use of contraceptives amongst female learners of a high school in Mdantsane

DATE AND TIME OF INFORMED CONSENT DISCUSSION:

dd / mmm / yyyy:

Time:

Good day. My name is **Nolundi Mshweshwe** and I am a masters' student at UNISA. I am inviting you to participate in a survey titled the "knowledge, attitude and use of contraceptives amongst female learners of a high school in Mdantsane, which I am conducting for my Master of Public Health dissertation.

The purpose of the study:

The purpose of this study is to evaluate the knowledge, attitude and use of contraception amongst female learners attending a proposed high school in Mdantsane.

Risks & benefits:

This study collection tool is a questionnaire which will be administered by the researcher by interviewing female learners. The interview will take approximately 15 – 20 minutes and involves answering several questions with regards to contraception. Learners may fear that parents & teachers will find out about their use of contraception. In an attempt to ensure safety of the information learners will not be asked to write their names on the questionnaire, therefore their responses cannot be associated with individuals. All consent forms and case report forms will be kept in a locked cupboard and only the researcher, supervisor, and UNISA will have access to

the documents. Consent forms which are signed by respondents will be kept separate from the completed questionnaire so that they cannot be matched with the responses. During publication of results, names of respondents will not be mentioned.

Taking part in this study may not benefit you as an individual, but may help improve the service and use of contraception in Mdantsane in the future.

Your involvement in this study is entirely voluntary and if you decide not to take part, it will not affect you in any way. If you decide to participate in the study, you are free to withdraw from the study at any time without penalty.

Confidentiality:

All the records and data will be kept in a safe place and will only be available to researcher(s) involved in the study, the supervisor(s) and to UNISA. Your name will not appear on the study documents or in any report of the study.

Compensation:

There will be no payment for taking part in this study

Contacts: Should you need more information or further explanation, please feel free to contact the researcher; Nolundi Mshweshwe-Pakela at 073 363 3376 or send an email to nolundimshweshwe@yahoo.com. Alternatively you can contact the supervisor; Dr Mokgadi Matlakala at 012 429 6770 or email at matlamc@unisa.ac.za.

Rights:

Participation is voluntary and you may withdraw your consent at any time. Withdrawal or refusal will not involve any penalty.

All study information will be kept confidential and only accessible to people involved in the study.

Consent

This explanation of the study was given by

Signature of person explaining

Name of respondent

I agree to take part in this study and understand that my participation is voluntary and that withdrawing will not result to any penalty.

Signature Date D D M M M Y Y Y Y

Witness name.....

Witness signature..... Date D D M M M Y Y Y Y

ANNEXURE E: DATA COLLECTION INSTRUMENT

TITLE: KNOWLEDGE, ATTITUDE AND USE OF CONTRACEPTION AMONGST FEMALE LEARNERS ATTENDING A HIGH SCHOOL IN MDANTSANE

Please read the following carefully

1. This is not a test and therefore there are no right or wrong answers.
2. Ensure that you understand the question before attempting to respond, if you have any doubts please feel free to ask me for explanation.
3. Your honesty will be appreciated as it is important in interpreting the results.

Thank you for your participation

QUESTIONNAIRE

Choose only one answer

A. Biography

1. Age

Years	Alt
18 years	1
19 years	2
20 years and more	3
Other, specify	9

2. School grade

School grade	Alt
Grade 10	1
Grade 11	2
Grade 12	3

3. Where do you stay? (e.g. n.u. 4 Mdantsane)

.....

4. How many children do you have?

3.1 Number of children	Alt
None	1
One	2
Two and more	3

3.2 Age of children	Alt
<1 year	1
1– 3 years	2
>3 years	3

5. Dating status

status	Alt
Single / unmarried	1
Married	2
Not married, but living with partner	3
Have a boyfriend, but not staying together	4
Other, specify	5

6. When was the last time you engaged in sexual activity

Period	Alt
Never	1
<3 months	2
3months – 1year	3
1year – 3years	4
Other (specify)	9

B. Knowledge of contraceptives

7. Please indicate what you understand by contraception.

Meaning of contraception	Alt
Prevention of pregnancy	1
Prevention of sexually transmitted diseases	2
Prolonging child spacing	3
Other (specify)	9

8. Where can you access contraceptives?

Site	Alt
Clinic	1
Hospital	2
Pharmacy	3
Private doctor	4
Other (specify)	9

9. Which of the following contraceptive methods are you familiar with?

Familiar methods	Alt
Oral contraceptives (pills)	1
Injectable: (Nur Isterate)	2
Intrauterine contraceptive device (IUCD)	3
Barrier methods: (male or female condoms)	4
Spermicide (film, tablet, foam, gel)	5
Other (specify)	9

10. Which of the following side effects of contraception are you aware of?

Familiar side effects	Alt
Weight gain	1
Weight loss	2
Stops menstruation	3
Heavy menstruation	4
Loss of sexual drive/mood	5
Acne/pimples in the face	6
Other (specify)	9

11. Explain in your own words how you think contraceptives work to prevent pregnancy.

.....

12. Where did you get information about contraception?

Source of information	Alt
Parents	1
School/teacher	2
Clinic/health facility/health worker	3
Media/TV/internet	4
Other (specify)	9

C. Attitude towards contraceptives

Please indicate your level of agreement towards contraceptives in the following statements:

Level of agreement/ statement	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
13. I approve the use of contraceptives by school children					
14. It is better to use contraceptives than to fall pregnant					
15. Freely available contraceptives do not lead to promiscuity.					
16. Contraceptives have more benefits than the problems they give					
17. There are enough contraceptive options to suit women's contraceptive needs					

D. Use of contraception

18. Are you currently using any form of contraception? **(If no go to Q20)**

Yes	1
No	2

19. If yes, which of the contraceptive methods listed below are you using?

Methods used	Alt
Oral contraceptives (pills)	1
Injectable: (Nur Isterate)	2
Intrauterine contraceptive device (IUCD)	3
Barrier methods: (male or female condoms)	4
Spermicide (film, tablet, foam, gel)	5
Other(specify)	9

20. If no, have you ever used contraception in the past?

Yes	1
No	2

If no, end of questionnaire. If yes, proceed.

21. Which of the following best explains your reason(s) for stopping use of contraception?

Methods used before	Alt
Side effects	1
Forgot to go to clinic	2
Staff unfriendly	3
Long queues in clinics	4
Needed a break	5
Other (specify)	9

22. Which of the contraceptive methods listed below were you using?

Methods used before	Alt
Oral contraceptives (pills)	1
Injectable: (Nur Isterate)	2
Intrauterine contraceptive device (IUCD)	3
Barrier methods: (male or female condoms)	4
Spermicide (film, tablet, foam, gel)	5
Other, specify	9

Methods used	1 Yes	2 No
23. Were you ever offered any other types of contraceptives apart from the one you are using	1	2
24. Do you take contraception as prescribed	1	2
25. Have you ever changed from one form of contraception to another?	1	2
26. Did you visit the clinic for contraception in the last 3 months	1	2
27. Did you visit the clinic for contraception in the last 6 months	1	2

END OF QUESTIONNAIRE

Thank you for your participation.

ANEXURE A

ETHICAL CLEARANCE CERITIFICATE

ANNEXURE B

LETTER TO REQUEST PERMISSION TO CONDUCT THE STUDY

ANNEXURE C

APPROVAL TO CONDUCT THE STUDY

ANNEXURE D

INFORMATION LEAFLET AND INFORMED CONSENT

ANNEXURE E

DATA COLLECTION INSTRUMENT