KNOWLEDGE, ATTITUDES AND PRACTICES OF CONTRACEPTION AMONGST ADOLESCENT GIRLS FROM SELECTED HIGH SCHOOLS IN A LOW SOCIO-ECONOMIC COMMUNITY IN CAPE TOWN

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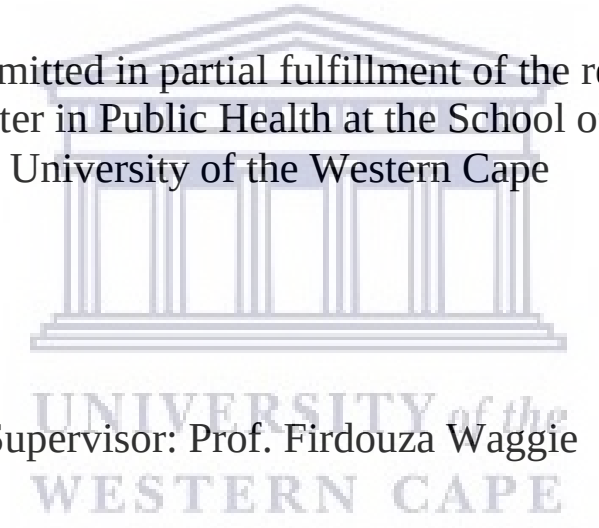
A mini-thesis submitted in partial fulfillment of the requirements for the degree of Master in Public Health at the School of Public Health, University of the Western Cape



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ABSTRACT

Adolescents account for 20% of the world's population, and the majority of them are inhabitants of developing countries. Increasing sexual activity amongst adolescents is a public health concern because it can lead to teenage pregnancy which in turn leads to an increase in relative poverty, unemployment, poorer educational achievements (for the adolescent) and poor health of unborn children. Contraceptive use gives females the ability to make informed decisions about their fertility as well as greatly reduce female morbidity and mortality. Despite freely available contraception and accessible reproductive health policies and facilities, a majority of adolescents still report unintended, unplanned pregnancies.

The aim of the present study was to describe knowledge, attitudes and practices associated with contraceptives, and the facilitators and barriers that influence contraceptive use amongst adolescent girls in selected public secondary schools in a low-socio-economic community in Cape Town, South Africa.

The researcher adopted a quantitative cross-sectional descriptive design – more specifically, a knowledge, attitudes and practices (KAP) survey. The study used a multistage sampling method. The sample size was calculated to be $N = 371$ (5% confidence interval and a confidence level of 95%).The data collection instrument was a survey in the form of a self-administered questionnaire with 4 sections that had been adapted for the South African context, from a previously validated instrument. The questionnaire was then pretested and finalised. All data was captured in Microsoft Excel and analysed using SPSS 25.0.

The study found that 97% of respondents had knowledge of contraceptives. The 3 most commonly known contraceptives were injection (81.1%), the pill (65.0%) and condoms (61.7%). Their main source of accessing contraceptives was a clinic (86.8%) and the biggest source of contraceptive knowledge was identified as school (82.7%). Their attitudes comprised positive and negative aspects. The respondents did not believe that it was difficult

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to obtain contraceptives but they were afraid of the side-effects of the pill and injection. Furthermore, they were aware that pregnancy was a consequence of unprotected sex and that it could affect completion of their schooling career.

The study also found that 23.8% of respondents were sexually active and almost 70% of those were not using contraceptives. This finding could explain why 8.1% of respondents had been pregnant.

The 2 main facilitators for contraceptive use were identified as prevention of pregnancy and prevention of STIs and HIV. The 3 most common factors also contributing to contraceptive use were identified as the fact that they had heard about it from friends or family, that it was free and that it had few side-effects. The 3 most common barriers to contraceptive use were fear of side-effects, wanting to have children and insufficient knowledge of contraception.

The study found that there was no significant relationship between knowledge and practice ($\chi 2=0.004$, p =0.95). However, there were significant relationships between knowledge and attitudes as well as between attitudes and practice. The strongest relationship between knowledge and attitude was the attitude that contraception was the responsibility of the couple ($\chi 2=19.36$, p=0.001). The strongest relationship between practice and attitude was the attitude that contraceptives should be made available at schools ($\chi 2=17.93$, p=0.001).

In conclusion, the study found that respondents possessed knowledge of contraception but the extent of this knowledge was not established. The respondents had both negative and positive attitudes towards contraceptives; however, the biggest fear expressed by respondents concerned the side-effects of hormonal contraceptives. The majority of sexually active respondents were not using contraceptives, which could be the reason for the adolescent pregnancies. Facilitators of contraceptive use were to avoid pregnancy and infections. However, the side-effects of contraceptives as well as lack of knowledge of contraceptive methods were identified as barriers to contraceptive use.

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This study recommends that interventions to increase knowledge and practice should be developed and implemented amongst adolescent girls and boys. These interventions could be done via the internet and social media to facilitate uptake by adolescents. Further research on this topic using either qualitative or mixed-method approaches is needed to develop the most appropriate interventions for adolescents.

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DECLARATION

I declare that *Knowledge, attitudes and practices of contraception amongst adolescent girls from selected high schools in a low socio-economic community in Cape Town* is my own work, that it has not been submitted before for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged as complete references.

Lameez Davids November 2019

Signed: ……

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ACKNOWLEDGEMENTS

I would like to firstly thank my creator for carrying me through. Then, my amazing mother, Amina, thank you for your lifelong support and showing me what hard work and determination looks like. You are my number one motivator and role model. I am nothing without you.

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I love you all, and I am eternally grateful…

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KEYWORDS

Adolescents

Attitudes

Contraception

Contraceptive Use

Females

Knowledge

Low-socioeconomic Community

Practices

Secondary Schools

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DEFINITIONS

Adolescents: According to the World Health Organisation (WHO), adolescents are defined as those individuals aged 10-19 years old. This period is characterized by spurt of growth and the development of secondary sexual characteristics such as pubic hair, enlarged breast, widen hips (for females) and facial hair and Adam's apple for males (Onyeonoro et al., 2011).

Respondents: Individuals that completed questionnaire, aged 12-19 years old.

Knowledge: A state of awareness and familiarity about methods, types and source of contraception (Nsubuga, Sekandi, Sempeera, & Makumbi, 2016).

Attitudes: The respondents' opinion or view about contraceptive practice (Nsubuga et al., 2016), side effects and pregnancy.

Practices: The actual application or use of contraceptive methods (Nagamala, Muthulakshmi, & Kayalvizhi, 2018).

Low socio-economic community: A community that has limited resources (as defined by educational attainment, income generation, work opportunities) to buffer against negative health outcomes that may lead to further decline of resources as well as cognitive and functional impairment (Leonard & Pruitt, 2018).

Contraception: The deliberate prevention of conception through the use of devices, sexual practices, drugs, or surgical procedures that interfere with the normal process of ovulation, fertilization and implantation (Rakhi & Sumathi, 2011; Thapa, Pokharel, & Shrestha, 2018).

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CHAPTER ONE

INTRODUCTION

1.1. Background of the study

Adolescence is generally seen as a period of good health. However, adolescents face health risks, and especially in relation to sexual practices. They are particularly vulnerable to unintended pregnancies and unsafe abortions (Denno *et al*., 2015). Teenage pregnancy is a health promotion problem that not only affects adolescents but also their families and communities at large, in both developing and underdeveloped countries. Adolescents, unmarried and still at school, have become pregnant from as early as 10 years old (Mchunu, Pelzer, Tutshana, & Seutlwadi, 2012). According to the World Health Organization (WHO), adolescents are defined as individuals aged 10 - 19 years old. This period is characterised by growth spurts and the development of secondary sexual characteristics such as pubic hair, enlarged breasts, wider hips (in girls) and facial hair and the Adam's apple in boys (Onyeonoro *et al*., 2011). Adolescents account for 20% of the world's population, and a major proportion of this 20% inhabit developing countries (Onyeonoro *et al*., 2011). In 2012 there were 721 million adolescents in the world (12 - 17 years old), of whom 639 million were from developing countries (United Nations, 2012). Increasing sexual activity amongst adolescents is a public health concern, because it can lead to teenage pregnancy which in turn leads to an increase in relative poverty (i.e. lacking a minimum income), unemployment, poorer educational achievements (for the adolescent) and poor health of the unborn child (Onyeonoro *et al*., 2011).

A total of 16 million female adolescents (ages 15 - 19) give birth each year worldwide; this accounts for 11% of all births, 95% of which are from developing countries (Denno *et al*., 2015; Masemola-Yende & Mataboge, 2015; Morris & Rushwan, 2015). Half (50%) of this figure is from sub-Saharan countries (Morris & Rushwan, 2015). In South Africa, for the year 2017 - 2018, 12.4% of all live births were from adolescents aged 10 - 19 years (Statistics South Africa, 2018). In sub-Saharan Africa, young women (15 - 24 years) are at increased risk of unwanted pregnancies owing to unmet contraceptive needs (United Nations, 2012). According to the WHO (2009), pregnant adolescents are more likely than their older counterparts to have unsafe abortions. Approximately 3 billion unsafe abortions are done globally each year on adolescent females (ages 15 - 19) (WHO, 2009), which contributes substantially to health problems and child and maternal deaths worldwide. In lower- and

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middle-income countries, complications during adolescent pregnancies are a major cause of death amongst girls (WHO, 2009).

Unwanted or unintended pregnancy is associated with negative socio-economic and health outcomes such as mortality, morbidity, unsafe abortions and depression, which are all public health issues (Politi *et al*., 2016). Contraceptive use promotes reproductive health as it reduces the chances of unwanted pregnancies and high pregnancy rates (which may lead to child and maternal mortality and morbidity (WHO, 2018) and can also improve overall health and wellbeing by protecting against adverse pregnancy effects (Politi *et al*., 2016). Contraceptive use may also decrease adolescents' school dropout rates while reducing mortality and morbidity associated with unwanted pregnancies (Gray & Vawda, 2016). According to Statistics South Africa (2016), contraceptive use in South Africa has not significantly changed from 1998 to 2016. In 1998, the contraception level amongst all unmarried sexually active females was 62.1%, compared with 64.2% in 2016 (Statistics South Africa, 2016).

Adolescent sexual and reproductive health has been historically overlooked although it forms a significant part of the global burden of sexual ill-health. This neglect leads to problems for adolescents, such as during their transition into adulthood, increased exposure to infection, and implications for their overall health and that of their families and communities. A total of 10% of adolescent girls will be mothers by the age of 16 in low- and middle-income countries, with the highest rates being in sub-Saharan Africa. Pregnancy amongst adolescents is more likely to end in abortion because of its being unintended (Morris & Rushwan, 2015).

It is estimated that more than 220 million women globally each year have an unmet need for contraception, but there is little progress in increasing the uptake. Although the uptake amongst adolescent females has been slightly higher than for older women, the former are more prone, however, to contraceptive failure and the use of traditional methods. The consequences of this unmet need are high levels of unsafe abortions and complications during childbirth, and comprise the leading causes for death amongst 15 - 19-year-old girls worldwide (Morris & Rushwan, 2015).

There are many barriers perpetuating the non-use of contraceptives amongst female adolescents. Some are deep-rooted political issues that filter down into the education and health systems. Cultural and religious norms and practices also create negative attitudes around the

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use of the contraceptives, thus limiting access. Further restrictions are lack of funds and physical access to contraceptives. Limited knowledge of contraception and sources of information available to adolescents, may create further barriers to use. Adolescents receive information from various sources such as peers, parents, family, teachers and healthcare workers (Morris & Rushwan, 2015).

In 1994, the International Conference on Population and Development explicitly called on governments to provide sexuality education within schools to promote the wellbeing of adolescents. Such education is required to be age-appropriate and foster mature decision-making, and one of its aims is to enhance gender equality and equity and to protect adolescents form early and unwanted pregnancies. In 2009 and 2012, the Commission of Population and Development highlighted that provision of education is a human right (Haberland & Rogow, 2015). Knowledge of contraception is seen in part as a preventative factor in combating teenage pregnancy (Masemola-Yende & Mataboge, 2015). However, even with Life Orientation as a school subject and national adolescent-friendly clinics as forms of prevention, teenage pregnancy remains a health problem. In South Africa, Life Orientation forms part of the life skills function, which is popularly implemented in educational settings. The subject is aimed at improving overall wellbeing so that learners can achieve their full potential (Jacobs, 2011). The Life Orientation curriculum provides information on contraception *inter alia* (from grade 7); however, some girls have a number of pregnancies even after receiving information on contraception (Masemola-Yende & Mataboge, 2015).

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Naidoo (2005) argues that even if adolescents have knowledge of numerous contraceptive methods, it does not follow that they will use them, especially if they do not know how to access them. In addition, adolescents are prone to poor decision-making which may be influenced by their peers and sexual partners. Furthermore, culture also influences attitudes. Thapa *et al*. (2018), however, argue that knowledge influences attitudes, and the combination of that influences practice. Thus an increase in knowledge will lead to positive attitudes about contraceptives and then lead to an increase in contraceptive use. Therefore, identifying the knowledge and attitudes concerning contraceptives will provide a useful measure of the success of educational programmes and health initiatives to identify areas that need strengthening. Adolescents require adequate knowledge of contraception because poor knowledge may lead to ineffective contraceptive use (Müller, Röhrs, Hoffman-Wanderer, & Moult, 2016). Misconceptions may lead to irrational fears that then affect attitudes (Pritt, Norris, & Berlan,

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2017), which may also lead to non-use of contraceptives to avoid supposed side-effects.

1.2. Research setting

The community in which the study was conducted is a low socio-economic area in Cape Town that was established during the apartheid era to accommodate non-white people who were relocated from the city centre and other more affluent communities. During this time, there was a deficit in resources including basic healthcare (Boonzaier & De La Rey, 2003). According to Census 2011, the community in question comprises about 310 500 people with an average household consisting of 4.57 people (Statistics South Africa, 2011a).

The research was conducted within schools in this low-socio-economic community. The schools each have approximately 1 200 - 1 500 learners, with girls and boys on average in equal numbers. Class sizes range from 35 - 55 learners. All the schools were public government schools and fell under the Western Cape Educational Department Metro South. In grades 8 and 9, all learners have to do generic subjects. They can then select their own stream subjects for grades 10 - 12. All grades have to do Life Orientation every year until grade 12. Sexual reproductive health and contraceptives are included in the Life Orientation curriculum.

1.3. Problem statement

The South African General Household Survey in 2015 found that 473 159 girls (between the ages of 12 - 19 years) drop out of school. Almost one-fifth of these girls (18.1%) dropped out due to falling pregnant in the preceding 12 months. In the same survey, only 0.4% of boys who dropped out was attributed to the pregnancy of their partners (Draga, Stuurman, & Petherbridge, 2016). This finding shows that schoolgoing girls are more likely to drop out of school as a result of pregnancy than their male counterparts (as a result of their partners' pregnancy).

Statistically expressed, 40% of girls in South Africa would become mothers by the age of 20 (Masemola-Yende & Mataboge, 2015).

Contraception empowers girls with the ability to make informed decisions about their fertility as well as greatly reducing female morbidity and mortality (Chersich *et al.*, 2017). Despite freely available contraception and accessible reproductive health policies, a majority of adolescents still report unintended, unplanned pregnancies. Approximately 80% of teen mothers have reported that their last pregnancy was unintended (The University of Cape Town, 2011). South Africa has free access to contraceptives. Furthermore, two-thirds of South

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Africans live 2 km from a public clinic and over 90% within 7 km, which assists with access to contraceptives (The University of Cape Town, 2011). Despite this proximity, contraceptives are not accessed or used consistently, leading to unwanted pregnancies. This phenomenon has not been clearly studied amongst adolescent females within schools in low-income communities in Cape Town and is therefore not well understood. Furthermore, very little research has been done around adolescent reproductive behavior in South Africa. Current research in the field does not highlight factors (facilitators and barriers) that contribute to effective use of contraception (Naidoo, 2005).

1.4. Aim and objectives

The present study aimed to describe the knowledge, attitudes and practices associated with contraception as well as facilitators and barriers to contraceptive use amongst adolescent females at secondary schools in a low socio-economic community in Cape Town.

The objectives of the study are as follows:

1. To describe female adolescents' knowledge of contraception.
2. To describe female adolescents' attitudes towards contraception use.
3. To describe female adolescents' contraceptive practices.
4. To identify facilitators and barriers that influence contraceptive use amongst adolescent girls.

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1.5. Significance of the study

By exploring the knowledge and attitudes of adolescent females that influences contraceptive practices, as well as the girls' actual contraceptive practices, the research can provide a body of knowledge that may influence policymakers, particularly regarding schools. This in turn could lead to appropriate interventions in schools that could be implemented to address the high rate of unintended pregnancies. These interventions would be influenced by actual gaps identified by the target population, and might then lead to more effective contraceptive practices, leading to more girls staying in school, finishing school and furthering their studies to provide them with wider career opportunities. The increase in contraceptive use may also reduce unsafe abortions and protect young girls against mortality, morbidity and psychosocial issues that comes with unwanted adolescent pregnancies. This approach is in line with the aim of the National Adolescent and Youth Policy (2016-2020) (Hodes *et al*., 2015; National Department of Health, 2017).

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1.6. Outline of the thesis

In this chapter, the background to the topic as well as an overview of the study is presented. The focus is on adolescent pregnancy and contraception. A gap was identified in the research with regards to the magnitude and description of the problem within low socio-economic communities such as the targeted community. The research questions, aim and objectives are introduced as well as a brief introduction to the setting.

In Chapter 2, literature is reviewed under the headings of: South African policies; Types of contraception available in South Africa; Social determinants of adolescent pregnancy; Knowledge of contraception; Attitudes towards contraception; Sexual activity and contraceptive practices; School environment; Barriers and facilitators of contraceptive use; and the conceptual framework

In Chapter 3, the research questions, aim and objectives are again highlighted. The methodology is then described, detailing the research paradigm, study setting, study design, study population, sampling strategy, data collection instrument, validity and reliability as well as limitations of the study, and ethics statement.

In Chapter 4, the results of the study are presented highlighting: demographic information of respondents, knowledge, attitudes, practices, facilitators and barriers to contraceptive use, and relationship between variables.

Chapter 5 is a discussion based on the main findings from Chapter 4.

In Chapter 6, the study is summarised and recommendations are presented for interventions and future research.

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CHAPTER TWO

LITERATURE REVIEW

2. Introduction

The literature review in this chapter comprises 10 sections. The first section summarises the policies that influence adolescent sexual and reproductive health including contraception. The second section briefly discusses types of contraceptives. Section three deals with the social determinants of adolescent pregnancy. Sections 4 to 6 cover knowledge, attitudes and practices concerning contraception. Section 7 deals with the school environment. Sections 8 and 9 discuss barriers and facilitators to contraceptive use. Finally, section 10 discusses the knowledge, attitudes and practices (KAP) framework

2.1. South African policies that influence adolescent sexual reproductive health including contraception

There are many international commitments addressing women's and girls' sexual and reproductive health. Unfortunately they do not translate well into practice but they do play a critical role in giving prominence to sexual and reproductive health (Müller *et al*., 2016).

In South Africa, there are several policies that are important to note for the present study.

Firstly, in the South African Constitution, all females have the right to reproductive healthcare and access to contraception. The South African Constitution was adopted on 8 May 1996 and amended on 11 October 1996 by the Constitutional Assembly. The Constitution protects the rights of females to make their own decisions around reproduction. This means that all females (and males) have the right to decide whether or not they want to have children. To protect all citizens from unwanted pregnancies, all citizens have the right to knowledge of and access to safe, effective, affordable and acceptable methods of contraception. Thus they can make informed decisions on which methods to use and if they choose to. Women have the right to complete reproductive healthcare including contraception or family planning, termination of pregnancy, sexual education and counselling. Furthermore, women, if they choose to, have the right to access appropriate healthcare to ensure safe pregnancy as well as childbirth (The Republic of South Africa, 1996b).

Secondly, the Children's Act of 2005 of South Africa came into effect in April 2010, which allows children over the age of 12 to access contraceptive services without parental consent. This act states that all children have the right to 'have access on health promotion and prevention and treatment of ill health and disease, sexuality and reproduction'. This

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information has to be shared with children in a language that they understand. Furthermore, all children have the right to access contraceptive methods from the age of 12 without parental knowledge or consent. All children who access advice or actual contraceptives are entitled to confidentiality. Contraceptives may not be refused to such children, given that there is no existing medical reason as to why they cannot have access (The Republic of South Africa, 2005).

The act attempts to decrease the unmet contraceptive need in the country and in turn decrease unwanted pregnancies and unsafe abortions, thus protecting the sexual and reproductive health of children by regulating their access to contraceptives. A study concerning this policy was done in Durban in 2015. A sample was selected from parents, educators, youth, community leaders and church leaders based on their roles in community functions. The study was a qualitative one, with 47 participants who were interviewed and took part in focus group discussions (Zondi, 2015). The study found that educators stated that, despite the availability of contraceptives, pregnancy was high amongst adolescents and was mostly unplanned; many pregnancies were terminated. The authors attributed this tendency to fear and lack of knowledge. Increased sexual activity may be due to the promotion of early sex in the media. They reported being concerned about the Children's Act providing access to contraceptives, saying that children should focus on school. In other words, they encouraged education over sexual interaction; yet the reality is that most adolescents are sexually active (Zondi, 2015).

The learners had various opinions; some were in favour of the Act and some were against it. Those against the act said that the Act encouraged sexual activity amongst children, even as young as 12. They viewed this age as far too young to engage in sex. They encouraged abstinence and its promotion via the media. Furthermore they argued that the age of consent should be raised to 18 years. Learners in favour of the Act argued that children develop the capacity to engage in decision-making regarding their own health. They encouraged access to contraceptives at age 12 because they viewed this as helping to reduce unwanted teen pregnancies, which could improve teenage health and promote safe sex. They shared that teenagers were scared to talk to their parents about contraception or sex, and that if the Act were not in force, they would not have access to safe options for practicing safe sex. These learners also felt that sufficient and accurate information should be provided to learners when accessing contraceptives. However, they believed that teens were aware of the negative consequences of sex (Zondi, 2015).

Thirdly, in an attempt to retain girls in school, the South African Schools Act of 1996 permits

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adolescent females to stay in school while pregnant and return after delivery. In fact, the Act says that it is compulsory for all children to be in school from age 7 to age 15 or grade 9, whichever comes first. Furthermore, the Act encourages compulsory attendance unless it is in the best interest of the child to be absent. To ensure that learners feel comfortable at school, the Act states that no learner may be discriminated against in any way. *Inter alia*, this means that pregnant girls are allowed to attend school during pregnancy, especially during the compulsory years of 7 - 15. A school may not refuse access to or the return of a learner, based on their pregnancy status; this would not only violate their right to basic education but also infringe on their right to equality and dignity (The Republic of South Africa, 1996a). Further, learners may not be punished for being pregnant or have difficult demands put on them, as this would be discriminatory (Draga *et al*., 2016). According to Davids and Waghid (2013), the Act gives clear legal rights to the pregnant girl but fails to address the rights of the school. They argue too that learners are in fact still turned away from schools, creating a gap between policy and practices by the Department of Basic Education, thus leaving schools to interpret the Act as best they can. They further state that the 'Measures for the prevention and management of learners' pregnancy' document of 2007 provides more explicit information about the rights and obligations of schools, teacher and also learners. However, both these documents are said to exclude the impact of gender roles and inequality, as pregnancy is seen as being extremely gender-oriented, leaving young girls open to particular discrimination and chauvinism, with less negative effects upon their male counterparts.

Fourthly, the National Department of Health also updated the National Contraception Policy Guidelines in 2012. The policy is in line with the Children's Act regarding age of access to contraceptives for adolescents. It is also in line with the National HIV Counseling and Testing Policy Guidelines of 2010 that allow adolescents to test at age 12 without parental consent (Department of Health, 2012). The Act includes new contraceptive technologies, aiming to offer a wider contraceptive choice and multiple mixed methods in public facilities. For example, the introduction of the implant increased access to the copper IUD with antibiotics at the time of insertion and increased access to female condoms through ward-based and community interventions. The guidelines also include aims of improved service delivery, health provider training and user-friendly adolescent clinics. All these policies aim to improve service delivery for marginalised groups including adolescents; sex workers; lesbians; gays; bisexual, transgender and intersex people; and migrants (Department of Health, 2012).

The policy was revised in 2012 owing to the global Family Planning Summit held in London, when the importance of contraception was re-emphasised. This revision was also directly

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linked to the 're-engineering' of primary healthcare. The emphasis was on health systems strengthening, implementing national care standards, and introducing national health insurance The policy has a specific focus on the incorporation of HIV interventions and technologies (Department of Health, 2014).

Noting that adolescents have specific needs different to those of adults regarding their reproductive and sexual health, and due to their vulnerability, the policy argues that every effort should be made to avoid pregnancy and HIV infection as these have negative consequences for adolescents. Hence, services are structured in such a way as to mitigate access barriers by providing youth-friendly services (Department of Health, 2012), which are discussed further below.

The fifth policy document is the Integrated School Health Policy (Department of Education & Department of Health, 2012). This policy is in line with South Africa's pledge (at the United Nations Convention on rights of the child) to put the child first. Children face many challenges as a result of infectious diseases, malnutrition, violence, injuries and non-communicable diseases, which are all social (UNFPA, 2014). In 2012, the Department of Basic Education and the Department of Health launched this policy to ensure that sexual and reproductive health services and rights are addressed in schools through school health programmes (Müller *et al*., 2016). A school health programme is defined as a combination of health services to maximise learner capabilities. This new Integrated Health Programme aims to build and strengthen existing school health services. The primary target group is grades 1 - 12 as well as grade R learners who form part of the formal school. The secondary target population is the rest of the school community, including staff and parents or caregivers (UNFPA, 2014).

The school health service package of particular relevance to adolescents includes health education and health promotion. Health education provides an opportunity for behaviour change amongst children and youths, and is incorporated into the Life Orientation curriculum. This curriculum should, however, be supplemented with either co-curricular or school-based activities to fully address issues related to sexual and reproductive health, menstruation, contraceptives, infectious disease, teenage pregnancy and termination of pregnancy. Furthermore, there are screening programmes that aim to assess all learners in various phases. Specifically in the senior and further education and training (FET) phases, all learners should be counselled about sexual and reproductive health. Those who are sexually active should be offered dual protection contraception, HIV counseling and screening for sexually transmitted illnesses. These services may be provided onsite by the school health nurse or learners can be

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referred to the closest facility to receive these services. Although learners can consent to treatment, they are advised to consult and discuss treatment with their parent or caregiver (UNFPA, 2014).

The sixth policy is the National Adolescent and Youth Policy of 2015 which addresses overall adolescent health but has a major focus of sexual reproductive health. The aim of the policy is to promote health and wellbeing of adolescents and youth aged 10 - 24 years. It takes a proactive and preventative approach to health promotion and management of adolescent and youth health. The policy has 6 objectives aimed at promoting the health of adolescents and youth (National Department of Health, 2017). These objectives are:

1. the use of innovative, youth-orientated programmes and technologies to promote the health and wellbeing of adolescents and the youth
2. to provide comprehensive, integrated sexual and reproductive health services
3. to prevent, test and treat for HIV/AIDS, TB and NCDs
4. to reduce substance abuse and violence
5. to promote healthy nutrition and reduce obesity
6. to empower adolescents and youth to engage with policy and programmes on youth health and be responsible for their health and wellbeing – excluding no one, such as those with disabilities.

Objective two is most applicable to the present study as it is aimed at ensuring that the needs of marginalised and vulnerable individuals are met. This includes adolescents, the disabled, people with chronic illnesses, lesbian, gay, bi-sexual, transgender and intersex (LGBTI) individuals and adolescents in risky sexual relationships. It attempts to do this through comprehensive and targeted sexual and reproductive health services based on the needs of these individuals. This objective has three interventions (National Department of Health, 2017): the first is the implementation of a single service point for both HIV and sexual reproductive health services for the identified individuals. These services should be free, confidential, non-judgmental and youth friendly. To achieve these objects, they should include the psychological needs for this vulnerable population and also be aligned to school timetables. The second intervention is to expand the use of dual-method contraception and increase access to male circumcision by having school-friendly opening hours. The third intervention is the provision of free education, meals, social grants and apprenticeship schemes to girls to prevent HIV by making them less vulnerable to transactional sex or exploitation that may lead to HIV infection (National Department of Health, 2017).

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The final policy is the Termination of Pregnancy Act. During the apartheid era, women could not terminate their pregnancy without statutory medical and judicial permission. This only changed with the advent of a fully democratic South Africa. This denial of termination lead to thousands of illegal abortions, resulting in extra mortality and morbidity amongst women. However, there were loopholes for white South African women to access legal abortions. In 1996, a draft bill was drawn to ensure that women have access to termination of pregnancy services. At the time, many prolife activists and groups including religious bodies were against this bill; they viewed it as legalising murder. The ANC's rebuttal was that they were pro-choice; by establishing this act, they were providing females with a choice (Haroz, 1996).

The act allows any female to have an abortion during the first 12 weeks of pregnancy, and also from week 13 - 20 if medically justified or as a result of rape or incest. The act requires consent from the female in question but no parental or spousal consent is required unless the woman has a severe mental disability (Department of Health, 1996).

In the study referred to previously that was conducted in Durban (Zondi, 2015), participants' views on the Termination of Pregnancy Act were contrasting; some were in its favour because it might decrease the number of 'backyard' abortions and also provide teens with an alternative choice after finding they were pregnant. Other participants were opposed to the use of contraceptives as it went against their religious beliefs, and others held that prevention of pregnancy through consistent use of contraceptives was better than termination of pregnancy. Some participants opined that it infringed on the rights of the unborn child and others felt that it was acceptable but should be based on a case-to-case basis. Religious affiliation was seen as being a predictor for being for or against termination of pregnancy (Zondi, 2015).

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2.2. Types of contraceptives available in South Africa

There are various contraceptive options available free of charge in public facilities (clinics, community health centres, and secondary and tertiary hospitals) for adolescents to access (Hodes *et al*., 2015). These include hormonal contraceptives (such as the pill, injection, hormonal ring, implant), emergency contraceptive (commonly referred to as the morning-after pill, condoms (male and female) as well as intrauterine devices and the more permanent form which is sterilisation (Lince-Deroche *et al*., 2016; WHO, 2004). It is important to note that sterilisation is not one of the recommended methods for adolescents *(*Lince-Deroche *et al*., 2016; WHO, 2004). Adolescents can also access these services through private pharmacies, clinics and hospitals at a fee.

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2.3. Social determinants of adolescent pregnancy

2.3.1. Contraceptive use

The unmet need for contraception is one of the key determinants of unwanted pregnancy amongst adolescent girls (WHO, 2010). A study in the USA found that adolescents are more likely to use condoms and injections that have higher failure rates as compared with other contraceptives. Furthermore, they may experience situations where they are unable to consistently use contraceptives due to lack of support from their partner, inexperience, erratic sexual activity and lack of communication with sexual partners. Women are also likely to use more than one type of contraceptive. Those who stopped one contraceptive and then took a break before starting a new one were most at risk for unwanted pregnancy than those who had no delay. Poor women were found to be more likely to abandon contraception altogether than switch to a different method (WHO, 2010) which may be attributed to difficult access or limited financial resources.

2.3.2. Poverty

Poverty is seen as both a contributor and a consequence of teenage pregnancy. Poverty may also lead to unhealthy relationships that can provide economic benefit. However, it decreases a female's ability to negotiate contraceptive use (WHO, 2010). In South Africa, poverty is a possible explanation for teenage pregnancy. Both household- and community-level poverty increase the likelihood of teenage pregnancy (Mkwananzi, 2013); this could be attributed to the fact that poverty is directly related to lower levels of education and contraception and is also related to fewer options for protective activities and higher levels of social ills (Mkwananzi, 2013). Some adults use poverty of adolescent girls as a tactic to prey on them and initiate transactional relationships with them. Adolescent females were found to engage in such relationships with elderly men to meet their basic needs (Wood & Hendricks, 2017).

2.3.3. Education in schools

In a qualitative study with 20 schoolgoing parents, it was found that almost all of them had sex education at school but 30% admitted that these lessons contributed to their teenage pregnancy. A total of 70% said that it had no bearing on their practices but instead their educational goals were more likely to ensure their effective use of contraceptives (Thobejane, 2015).

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2.3.4. Media

In the same study as above (Thobejane, 2015), access to adult TV shows with no supervision influenced 80% of the participants' sexual behaviour and contraceptive practices. This was usually because they had easy access to pornography (Thobejane, 2015). The internet and social media have dramatically changed the way people communicate, especially the youth, by providing new ways of knowledge generation and information sharing about sexual and reproductive health. The media also provide new opportunities for intervention (Guse *et al.*, 2012). The internet was found to significantly increase condom use amongst adolescents and youth in America; it was also found to increase knowledge in countries such as China, Kenya and Brazil, as well as increase positive attitudes towards contraceptive use in China amongst adolescents (Guse *et al*., 2012).

2.3.5. Peer pressure

Thobejane (2015) found that 80% of participants said that their friends influenced their decision to fall pregnant either because they had children or were sexually active. The remaining 20% said that their friends had no influence on their decision to fall pregnant. In sub-Saharan Africa, peers were found to not only influence romantic and sexual relationships but also encourage adolescent girls to get boyfriends (Yakubu & Salisu, 2018).

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2.3.6. Parental influence and religion

Thobejane (2015) found that although 90% of participants lived with their parents, a total of 70% did not discuss sexual matters with parents, yet parents were disappointed about them falling pregnant. Parental guidance for teenagers is seen as an important factor in preventing pregnancy. Lack of parental relationships among adolescents was also found to be a risk factor for teenage pregnancy. Improved parental and child communication is seen as a preventive influence in adolescent pregnancy (Silk & Romero, 2014). Furthermore, high rates of adolescent pregnancy may also be attributed to religion and cultural beliefs leading to non-use of contraceptives (Parsons *et al*., 2015).

2.3.7. Gender inequality

Contraceptive use often falls upon the female (Müller *et al*., 2016). Females are seen as the subordinate gender but they still possess the ability to make choices around contraception. In this way, girls are discouraged from being sexual but on the other hand encouraged to protect themselves against teenage pregnancy by using contraceptives. A female who carries a

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condom may be seen as sexually promiscuous but a male carrying a condom is seen as being responsible or prepared. Gender dynamics play a role in contraceptive use and the sexual experiences of adolescent girls (Müller *et al*., 2016). Sexual and reproductive health was seen as a female priority in a study in Johannesburg in 2014 (Mmari *et al*., 2014).

2.4. Knowledge of contraception

A South African study (Müller *et al*., 2016) found that adolescents, especially adolescent girls, required accurate and complete information about reproduction and contraceptive use, as teenage girls had low levels of knowledge of contraceptives; but other studies have shown that their knowledge was high. However, their awareness about emergency contraception was high (Müller *et al*., 2016). Furthermore, poor knowledge is cited as being the reason for inconsistent or ineffective contraceptive use; but most adolescents are well informed about modern contraceptives. Müller *et al*. further argue that 99.2% of unmarried sexually active females and 85.5% of inexperienced women were knowledgeable about modern contraceptives. Most of this knowledge was acquired through Life Orientation at school (Müller *et al*., 2016).

Müller *et al*. (2016) report that 34% of teenage mothers did not know about contraception and had gaps in accuracy regarding correct use. One complaint from adolescents were that teachers did not effectively relay sexual and reproductive health information, causing these knowledge gaps. Vujovic *et al*. (2014) also argue that there is limited information available and adolescents are reluctant to communicate with their parents about contraceptives. Pritt *et al*. (2017) reported that there was a lack of awareness about contraceptive use. In a survey in 2009 with 106 adolescent females, 70% did not know what an intrauterine device was. Furthermore, of those who knew (30%), half did not know its features. A South African study by Chersich *et al*. (2017) found that 92% of women in the study were aware of injectable contraception, 89.9% were aware of oral contraception, 73.3% about female sterilisation, 50% were aware of intrauterine devices and 47.3% were aware of emergency contraceptives. Furthermore, adolescent knowledge was found to be less than that of adult women on average.

In another study (in the USA) reported by Pritt *et al*. (2017) of 129 women, 60% had never heard of a contraceptive implant. Misconceptions about contraceptives may lead to irrational fears, preventing adolescents from using contraceptives. Jewkes *et al.* (2001) also argue that there is considerable misinformation about sexual health matters including contraceptive use by health professionals. In a Nigerian study by Onyeonoro *et al.* (2011) with 280 female

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adolescents, 92.1% of them had knowledge of various forms of contraception. Of these, 100% knew about condoms, 41.4% knew about the rhythm method, 27.6% about the pill only, and 1.3% knew about intrauterine devices. There are, however, adolescents who know nothing about contraception or are misinformed or have poor understating (Kanku & Mash, 2010). Adolescents acquire sexual reproductive health information through peers (86.8%), media (82.9%), teachers (73.7%), parents (61.8%) and religious groups (55.3%). Of the respondents, 56.9% had had sex at least once and most (95%) of them at the age of 16 (Onyeonoro *et al*., 2011). Mchunu *et al.* (2012) report similar statistics, that the majority of adolescents get information about reproductive health from teachers (85%), clinic nurses (74.1%), mothers (68.5%), sisters (67.9%) and other females (58.3%).

2.5.Attitudes towards contraceptive use

A study in Limpopo by Ramathuba, Khoza and Netshikweta (2012) found that 60% of respondents (*N*=273) preferred condoms, 19% injection and 5% the pill. These aligned with their attitudes, as almost half of the respondents (46%) had a negative attitude towards the pill and injections, due to side-effects, family beliefs, culture, peer pressure and not seeing a need for contraception (Ramathuba *et al*., 2012). In the same study, it was found that 72% of respondents never discussed contraceptives with their parents. More than half (51%) did not even discuss it with their partners. Their reasons were various, such as attitudes associated with peer recognition, acceptance that comes with natural sex (sex without contraception), wanting to 'look cool', being afraid to talk about it, feeling uncomfortable about it, and their attitudes to contraception as a threat to cultural values and norms (Ramathuba *et al*., 2012). In another study in Brazil, it was found that the majority of adolescents (89.7%, *n*=507) had positive attitudes towards contraception (Paiva *et al*., 2014).

A study in the Tshwane District (with pregnant teenagers aged 15 - 19), it was found that respondents supported the use of contraception but were afraid of side-effects such as weight gain or change in appearance. They were also afraid of not having their period, increased hunger or having 'dirty blood' in their body from contraceptive use. Some participants were unsure of the need for contraceptive use. Respondents also said that they did not think they would fall pregnant and therefore chose not to use contraception. Non-use was also attributed to nurses' behaviour and difficulty accessing contraception even though they had prior knowledge of contraception. However, they did share that they required more information from parents, teachers and health professionals. Peer pressure was also found to influence their

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attitudes towards contraception; if their parents or boyfriends had negative attitudes, they would also adopt those attitudes (Tabane & Peu, 2015).

2.6. Sexual activity and contraception practices

Globally, early sexual debut remains a public health problem. It is defined as having had sexual intercourse at or before the age of 14. A study in Nigeria involving 365 schools with adolescent pupils (mean age 14) found that 16.2% of respondents had had sex, of whom 67.8% were early sexual debuts. The mean age for early sexual debut was 13. Furthermore, two-thirds of respondents (64.4%) had between 1 and 2 sexual partners. Boys were found to be more likely than girls to have had their sexual debut under the influence of alcohol, or have friends who drank alcohol (Durowade *et al*., 2017).

A South African study (Panday, Makiwane, Ranchod, & Letsoalo, 2009)reports that the median age for sexual debut is between 10 and 17 years and, by the age of 20, half of all South African females would have had a child. The study further reports that 52.25% of females aged 15 - 24 years were in fact using contraceptives. Of these participants, 66.6% were using hormonal contraceptives, 26.5% using condoms and 6.8% using dual methods. For adolescents specifically, 28.5% were using the pill, 0.1% an intrauterine device, 22.9% an injectable and 2% using condoms. This condom use peaked around the age of 16 (Panday et al., 2009) which could be attributed to sexual debut, as previous studies above have reported this as an average age. A counter to this finding is that contraception is hardly ever used at sexual initiation but adolescents use it at some stage. A total of 88.4% of adolescents did not use any form of contraception at initiation (Vundule, Maforah, & Jewkes, n.d.).

Another South African study of 1 149 females found that their median age of sexual debut was 16 years. By the age of 15, 14.2% of females had had sex. Between ages 15 and 17, a majority of females had their sexual debut which peaked around 16 years (Richter, Mabaso, Ramjith, & Norris, 2015). Mmari *et al*. (2014) also report that in sub-Saharan Africa, a study found that the urban poor have lower condom use. They also found that amongst adolescents, physical health, which influences health-seeking behaviour and lack of condom use, was not a top priority (Mmari *et al*., 2014). According to Osaikhuwuomwan and Osemwenkha, (2013), a study of 163 adolescents found that 38.1% of them used condoms, 25.5% had used emergency contraception, and 7.4% the rhythm method. Of these methods, 69% reported poor uptake of contraceptives, 19.6% adequate use and 11.1% were neutral. Females said that they perceived contraception to be 92% effective, 79% of them were satisfied with the contraceptive they used, and 76% were extremely sure it would prevent pregnancy (Brown, Ottney, & Nguyen, 2011).

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In 2014, the implant was introduced in South Africa, with the aim of increasing uptake. It was found to be highly acceptable amongst adolescents, with approximately 80% continuation rates after 12 months in sub-Saharan Africa (Richter *et al.*, 2015).

2.7. School environment

Adolescent pregnancy may lead to termination of schooling; however, in South Africa these pupils postpone completing school instead of dropping out. Teachers and the school environment act as facilitators for teenage mothers to remain in or return to school (Willian, 2013). There have been many intervention programmes aimed at behaviour change in adolescents to prevent unintended pregnancies and HIV infection in sub-Saharan Africa; these include school-based education on sexual reproductive health, HIV/AIDs and other STIs (Mda, O'Mahony, Yogeswaran, & Wright, 2013) which all form part of health-promoting school initiatives. These initiatives are aimed at 'achieving healthy lifestyles for the total population, by developing supportive environments conducive to the promotion of health' (Mohlabi, Van Aswegen, & Mokoena, 2010:249). They offer opportunities to provide a health-enhancing social and physical environment. However, owing to lack of clear policy guidelines, the implementation of health services is negatively affected, which is contrary to the government's commitment of prioritising the health of children. Since 1994, several programmes have been implemented by various sectors; these include HIV/AIDS life skills education, mental health and substance abuse programmes (Mohlabi *et al*., 2010).

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These programmes and the subject of Life Orientation have, however, not been able to change behaviour in respect of delaying sexual initiation, uptake of contraception and even teenage pregnancy (Panday *et al*., 2009). The Life Orientation curriculum introduced in 1999 by the South African National Department of Education was intended to address educational, health and social needs of learners. The curriculum includes sexuality, gender, school safety, and health and skills development. This subject is currently compulsory for all grades (1 - 12) (Mda *et al*., 2013). Within school programmes, Life Orientation is given 2 hours per week of contact time per grade (8 - 12) (Department of Basic Education, 2011, 2018). Furthermore, as part of the integrated health policy, contraception education is taught from grades 8 12, and sexual and reproductive health counselling, including referral, is done from grades 4 - 12 (Department of Education & Department of Health, 2012).

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A study in KwaZulu-Natal in 2013 of 43 black secondary school staff members at 19 different schools found that, due to the fact that Life Orientation is a national mandate, teachers are required to receive one week's training in preparation to teach the subject. However, many of them were still uncomfortable with the topics they were supposed to discuss, but they admitted that there was a need for HIV/AIDS education in schools. Furthermore, pregnant learners may leave school when they become pregnant but by law should be allowed to complete their schooling, regardless of their pregnancy. Participants also shared that romantic and sexual behaviour was discouraged at school and instead they encouraged abstinence and suggested that virginity testing should be used as a method to ensure this (Smith & Harrison, 2013).

2.8. Barriers to female adolescent contraceptive use

Social factors that prevent adolescents from accessing contraceptives were reported to be related to stigmatisation by health professionals. Some adolescents reported being scolded and physically abused by staff when seeking contraceptives (Guo, 2013; Hagey et al., 2015; Netshikweta, 2007; The University of Cape Town, 2011). Lack of accurate sexual knowledge was reported as creating mistrust and fear amongst adolescents; only 12% of girls in the study reported knowing their fertile period (The University of Cape Town, 2011).

Adolescents also reported that long waiting times at clinics cause limited access, especially as they need to return to school after appointments (The University of Cape Town, 2011; WHO, 2004). A study of Ghanaian students found that they had many fears about being seen as sexually promiscuous and of mechanical failures such as breaking condoms, failure of intrauterine devices, or condoms lodging in the uterus. These fears were influenced by past experiences, hearsay and knowledge they might have picked up from peers (Appiah-Agyekum & Kayi, 2013).

Hagey *et al.* (2015) also reported the stigma of being sexually active as a barrier to contraceptive use. Not being in a serious relationship is also a barrier as adolescents said that they were more likely to access services if their partner was with them as this would make them feel more at ease and they would feel less judged. They also shared that lack of knowledge around methods and provider bias in not providing them with a pill option were further barriers. It was also reported that scheduling of appointments can be tricky as they have to attend school (Hagey *et al*., 2015). Misinformation from healthcare providers and nurses trying to persuade adolescents to use a specific method were also reported as barriers

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(Guo, 2013; Lince-Deroche *et al.*, 2016). Lack of counselling, confidentially, parental and nurse attitudes as well as risk perception and lack of affordability were all cited as important barriers (Mushwana, Monareng, Richter, & Muller, 2015; Pritt *et al*., 2017; Vujovic, Struthers, Meyersfeld, Dlamini, & Mabizela, 2014). Cultural beliefs, norms and family and peer perceptions were seen as social barriers that prohibit even open conversation around sexuality and this influences contraceptive use (Guo, 2013; Netshikweta, 2007; Western Cape Department of Health, n.d.).

A study in the USA found that possible health effects (such as weight gain and spotting), mistrust around efficacy, ambivalence of pregnancy, access and bad experiences were all barriers to adolescents accessing contraceptives (Chernick *et al*., 2015).

2.9. Facilitators of female adolescent contraceptive use

Brown, Ottney and Nguyen (2011) reported that effectiveness of contraception was the prime facilitator of contraceptive use; this was followed by cost, limited side-effects and return to fertility. Some girls also reported facilitators that included the recommendations of healthcare providers, menstruation suppression, and ease of use. All these factors can be influenced by partners, peers and family practices or perceptions. However, the study further revealed that encouragement from close relationships also facilitated the use of contraceptives. The WHO (2004) reported that counselling from non- judgemental nurses facilitated adolescent contraceptive use, as well as the provision of adequate knowledge and good past experiences (Appiah-Agyekum & Kayi, 2013). Adequate knowledge to make an informed decision, peer encouragement, positive staff attitudes and guaranteed confidentiality were all reported as facilitators of contraceptive use (Hagey *et al*., 2015). Adolescents said that if clinics were more adolescent friendly with age-appropriate counselling and ease of access, they would access contraceptives more readily (Hagey *et al*., 2015).

Lince-Deroche *et al.* (2016) agree with these findings, adding that attitudes and training of health education filters into appropriate counselling that motivates adolescents' contraceptive use, who also want to have the ability to choose their method; affordability was also important to them. Another study found that social media, peer relationships and encouragement as well as education and plans for the future facilitate the use of contraceptives. Girls who want to finish school or wait until they are financially secure before having babies were more likely to use contraceptives correctly (Chernick *et al*., 2015).

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2.10. Knowledge, attitudes and practices framework (KAP)

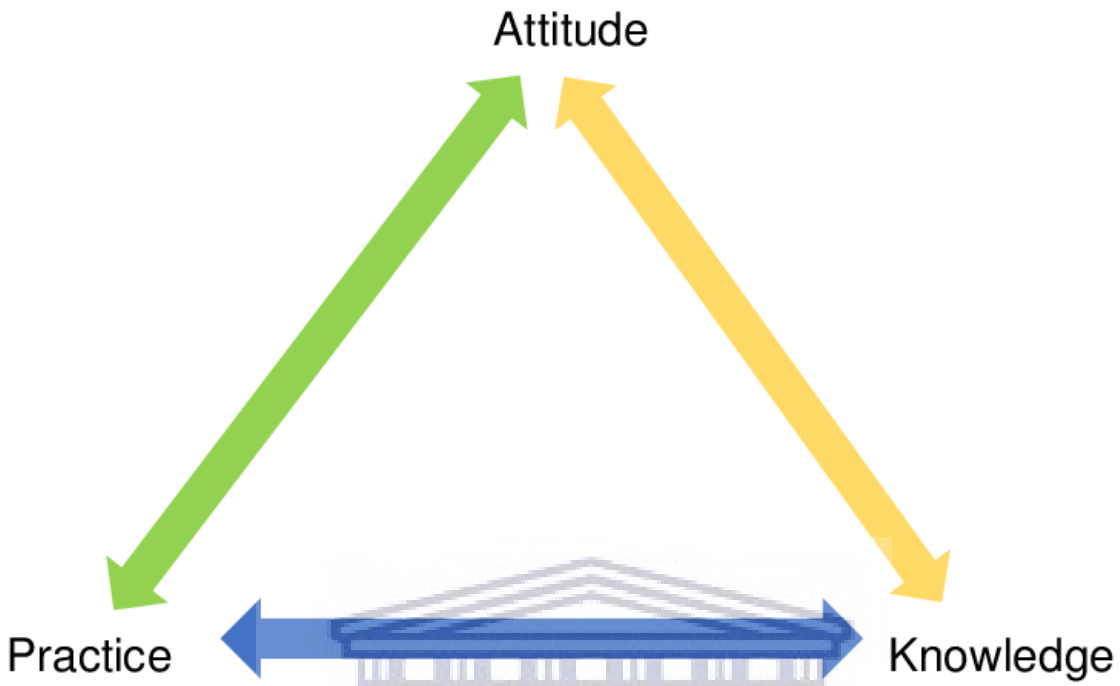

Figure 1: The KAP model

Information about which public health programmes have been developed is usually collected through cross-sectional studies, of which the most widely used is the KAP survey. This model was initially developed in the 1950s for family planning and population studies. The KAP for family planning was used as a basis for interventions in the 1960s and 1970s in Africa to describe family planning perspectives (Luaniala, 2009). This model is used to structure questionnaires and to explain the relationships between knowledge, attitudes and practices, by collecting information from both patients and health workers (Kishore, 2016). An assumption of this model is that there is a relationship between the variables, as illustrated above (Bano, Al-Shammari, Fatima, & Al-Shammari, 2013).

The KAP model includes predisposing factors and actual behaviour. There are two exposure variables: the first is knowledge of a disease or health outcome; the second one attitudes towards a disease or health outcome. The third variable – practice – is an outcome variable as a result of the exposure variables. However, the third variable may lead to a further outcome variable such as being free or disease (Rav-Marathe, Wan, & Marathe, 2016).

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The model states that all variables have an impact on each other. It is advantageous to use when looking at causation or the relationship between knowledge, attitudes and practices. Understanding the knowledge and attitudes of individuals are important factors that influence outcomes. This information can guide interventions and programmes to target knowledge and attitudes to obtain the preferred or desired outcome (Rav-Marathe *et al*., 2016). The model posits that an increase in knowledge will lead to behaviour change, suggesting that ignorance is viewed as the main reason for lack of practice. This perspective is a weakness of the model because knowledge alone cannot determine practice. Another weakness of the model is that attitudes are often analysed in isolation, with no linkage to the nature of the attitude (WHO, 2012). However, on the other hand, the model is easy to interpret and the method is easy to conduct. Furthermore, the results are easy to interpret (Luaniala, 2009).

In the present study, the description of knowledge of contraception and attitudes toward contraception, as well as the related practices, provides a knowledge base to inform future interventions. No interventions have been implemented. The knowledge variable is the question in the study where participants are asked about their familiarity with contraceptives; it does not determine the degree to which their knowledge is accurate. The attitude variable is broad in this study as it looks at 18 different attitudes about contraceptives and pregnancy to determine how participants feel about contraceptives as well as the possibility of pregnancy. The final variable in the study is contraceptive practices, and this is in fact the outcome variable of the study. This variable considers whether respondents use contraceptives or not. The practices also include barriers and facilitators to using contraceptives.

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2.11. Summary of the chapter

This chapter discusses the policies that affect adolescent sexual and reproductive health. Two of these policies focus directly on contraceptive education. This is the Integrated School Health Policy and the National Adolescent and Youth Policy. The text then briefly discusses the types of contraceptives available to adolescents in South Africa. There is a wide variety of hormonal and barrier methods. Sterilisation is available in South Africa but is not recommended for adolescents. The social determinants relating to adolescent pregnancy are then discussed. Poverty and the impact it has on both negotiating contraceptive use with sexual partners and the limitations on access to contraceptives is a strong determinant of adolescent pregnancy. Media also play a big role, especially with the increase of internet access that adolescents have nowadays. This review also considered knowledge, attitudes and

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practices relating to adolescent contraceptive use. Adolescents were found to be knowledgeable about contraceptives and this knowledge was acquired through teachers, peers, family members, and health professionals. Their attitudes were both negative and positive, and were also influenced by peers and family members. Adolescents highlighted that their fear of the side-effects of contraceptives had a negative impact on their use. The school environment was then discussed to provide a context, and it was highlighted that policies and programmes exist which are designed to keep girls in school by both providing education and also attempting to change their sexual and contraceptive practices. Barriers to contraceptive use were identified as stigma and lack of knowledge. Adolescents also said that facilitators to their use of contraceptives were their educational goals, efficacy of contraceptives, and knowledge of various contraceptive methods. Lastly, the KAP conceptual framework was discussed to highlight the relationship between knowledge, attitudes and practice variables. This framework is also used in the discussion section.

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CHAPTER THREE

METHODOLOGY

3. Introduction

This chapter introduces the research questions, aims and objectives. It also discusses the methodology of the study as well as the limitations of the study and ethical considerations.

3.1. Research questions, aim and objectives

Research questions

1. What is the knowledge, attitudes and contraceptive practices amongst adolescent schoolgoing girls in a low-socio-economic community in Cape Town?
2. What are the facilitators and barriers to contraceptive use amongst adolescent schoolgoing girls in a low-socio-economic community in Cape Town?

Aim

The aim of this study is to describe the knowledge, attitudes and practices associated with contraception as well as the facilitators and barriers that influence contraceptive use amongst adolescent girls in selected public secondary schools in a low-socio-economic community in Cape Town.

Objectives

1. To describe female adolescents' knowledge of contraception.
2. To describe female adolescents' attitudes towards contraceptive use.
3. To describe female adolescents' contraceptive practices.
4. To identify facilitators and barriers that influence contraceptive use amongst adolescent girls.

3.2. Research paradigm

A research approach is a belief system or theory that guides practice. The two main paradigms in research are positivist and naturalist approaches (Mukherji & Albon, 2014). The present study adopts a positivist approach. Positivism is a branch of philosophy that believes in one reality that exists independently. The ontological position of this approach is realism; researchers within this paradigm believe in a cause-effect relationship between phenomena. The epistemological quality of this approach is objectivity. Researchers act as objective observers and do not attempt to manipulate what is being observed (Rehman, 2018). The

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empirical evidence gathered via this approach can be used to develop theories and explain phenomena. The method of analysis is deductive, with the purpose of measuring and predicting causality. Positivist research produces numerical data which can be collected via questionnaires (Rehman, 2018), as done in the present study.

Although the positivist approach is objective and scientific, it is criticised for not being able to describe social phenomena because these are very complex and cannot always be described by the rules of one true factuality (Rehman, 2018).

3.3. Research setting

The study was conducted in a low-socio-economic community in Cape Town that was established during the apartheid era for non-whites. During this time, limited resources, including health care, were provided for the non-white racial groups, and hence the low socio-economic status of the community. This community is known for crime and gangsterism (Boonzaier & De La Rey, 2003). According to Census 2011, it houses close to half-a-million people with an average of 4.57 people per household. A total of 10.4% of the residents have no income. A further 12.9% have a total income of R1 601 - R3 200 a month. This paints a bleak economic picture, considering that approximately 14 800 people fall into this category. When considering the two highest categories of income (R51 201- R 102 400 and >R102 400), only 0.9% of residents fall into this category which is approximately 624 people (Statistics South Africa, 2011a). A total of 57% of the population is unemployed (The Department of Provincial and Local Government, 2011).

The community is a predominately coloured community, with 90.8% of the population being of coloured ethnicity (Statistics South Africa, 2011a). It is self-sustaining and consists of numerous sub-areas, some more affluent than others (The Department of Provincial and Local Government, 2011). Only 5.9% of the population have a qualification higher than grade 12 (Statistics South Africa, 2011a). There are approximately 95 churches and 22 mosques in the community.

In this study, participants were sourced from secondary schools, and the research was also conducted in this setting. All three schools were public government schools that fall under the Western Cape Educational Department Metro South District. Schools one and three are in communities that are less affluent while school two is in a more affluent area within the community. All schools' class sizes range from 35 to 55 learners per class. All three schools are fee-charging.

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School one. This school is dual medium (English and Afrikaans). It is in an area known as a red zone, i.e. an area with high crime and therefore medical services such as ambulances are not allowed to enter the area without a police escort. The school is secured and access controlled. Only with permission from the principal are cars allowed inside the school grounds. Once inside, access must be obtained at a gate by the secretary before visitors are allowed inside the administration building. The school has 1 124 learners, of whom 560 are female. The school has both English- and Afrikaans-medium classes. It is surrounded by houses and situated close to a shopping mall.

School two. This is an English-medium school situated in a more affluent area within the community. It is surrounded by three other schools, one being a special needs school. One of the community's biggest parks is walking distance from the school. The park is very popular and has Sunday markets and music shows and also hosts weddings. The school has 1 017 learners, of whom 505 are female. The school is access-controlled but, once inside the grounds, access to the administration area is much easier than at school one.

School three. This is a dual-medium school with 1 161 learners, of whom 512 are female. It is situated close to two big hospitals and two shopping malls. This area is less affluent than the area where school two is situated but more affluent than the area where school one is. This school is access controlled at the gate and visitors are not allowed to park inside the grounds but they can park around the border of the school (which is where the researcher had to park on her visits).

3.4.Study design

The researcher employed a quantitative cross-sectional descriptive design – more specifically, a knowledge, attitudes and practices (KAP) survey. Cross-sectional studies are aimed at determining frequencies or levels of various attributes. They sometimes attempt to go further and look at risk factors that influence a health phenomenon. More specifically, cross-sectional studies are useful in assessing knowledge, attitudes, beliefs and practices relating to a health event/phenomenon. In this way, one is able to provide an indication of the magnitude of a health problem at one point in time and provide a basis for health interventions (Setia, 2016) – which is why this design was the most appropriate, as it aligns with the purpose and aim of the study. There are a few weaknesses in this particular study design. It is difficult to determine

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whether the outcome came before exposure or if exposure came before outcome. Although it can determine associations, these associations may be difficult to interpret due to the collection of exposure and outcome variables at one point in time. This design is also unable to measure rare diseases or diseases of short duration, and unable to measure incidence, and is susceptible to bias due to low response rates and recall bias (Hennekens & Buring, 1987).

3.5. Study population

The study population was adolescent girls enrolled at all secondary schools in the target community from January to July 2019 who were between the ages of 12 and 19 years. The study population size during this period was 10 768 (WCED, 2018).

3.6. Study sample

As previously mentioned, adolescents are individuals of age 10 - 19 years; they usually start secondary school around age 12 - 13 years. Therefore the study sample was adolescent girls aged 12 - 19, who were currently enrolled at selected secondary schools in the targeted community.

3.7.Inclusion and exclusion criteria

Inclusion criteria are those adolescent girls currently enrolled at selected secondary schools in the targeted community, in all grades (8 - 12), and of age 12 - 19 years. Exclusion criteria are those under 12 years old and over 19 years old. The schools, however, requested that no grade 12s participate in the study. Thus only grades 8 - 11 were included in the final sample.

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3.8.Sampling strategy

The researcher employed a multistage sampling method (Alvi, 2016). The rationale for this is that the study population was scattered over a large geographical area and drawing up a sample frame would prove challenging. There were 17 secondary schools in the targeted community. In stage one, the researcher randomly selected 6 schools and requested access to them from the WCED. Three schools were sufficient for the sample size but, to minimise the need to reapply for permission from the WCED if schools declined, 6 schools were initially selected. In stage two of the sampling process, all 6 schools were contacted for a meeting to discuss the process of the research and to obtain commitment. Three of the schools declined to participate and were not included in the final sample. Two of the schools were situated in areas that were less affluent and 1 in an area that was more affluent. Of the schools who agreed to participate, one was randomly selected for doing the pretesting. When the researcher met with the schools after their commitment, a co-ordinating teacher was named by the principal to be the contact for the

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researcher. In stage three of the sampling, the co-ordinating teacher selected learners for pretesting. However, when choosing the actual participant sample, all girls at the schools were informed about the study and the first 371 girls who responded were chosen. At schools 1 and 3, there were 124 participants each, and at school 2 there were 123 participants who agreed to participate and returned the consent forms.

3.9. Sample size

The study population was *N*=10 768 female learners in the targeted community's secondary schools. With a 5% confidence interval and a confidence level of 95%, the ideal sample size would be 371 learners. This calculation was done using STATCALC in EPI info version 7.2.1.0. See manual Cochran's sample size formula calculation below:

z (z-score) = 1.96
e (margin of error) = 0.05
N (population size) = 10 768
p (*p*-value in decimal) = 0.5
N (sample size) = 371

$$\text{Sample size} = \frac{z^2 \times p\,(1-p) \div e^2}{1+\left(\frac{z^2 \times p(1-p)}{e^2 N}\right)} = \frac{1.96^2 \times 0.5\,(1-0.5) \div 0.05^2}{1+\left(\frac{1.96^2 \times 0.5(1-0.5)}{0.05^2 \times 10768}\right)} = \frac{384.16}{1.0356760772659} = 370.9$$ **i.e. 371**

The sample size was divided by the 3 selected schools (school one = 124, school two = 124 and school three = 123). All girls in grades 8 - 11 were informed about the study to ensure a wider pool of participants. This over-sample helped to not have to resample due to spoiled/incomplete surveys. The first of these participants to return their forms were included in the final sample.

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3.10. Research instrument

The outcome variable was contraceptive practices, and the four most important exposure variables were: knowledge, attitudes, barriers and facilitators.

The questionnaire consisted of 4 sections. The first section had 7 items that captured participant characteristics and socioeconomic status. The second section had 5 items that captured respondents' knowledge. The third section focused on attitudes and included 19 items. The fourth section was about practices relating to contraceptives and also included barriers and facilitators to contraceptive practices. This section had 13 items.

The data were collected by means of a self-administered questionnaire. Questionnaires usually contain carefully constructed questions that are either ranking or closed-ended questions (Celano, 2014). Paiva *et al.* (2014) and Santoso and Surya (2017) developed questionnaires for

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their studies. These 2 instruments were the most comprehensive and inclusive to address the study objectives and were adapted for the present study. Alone they were insufficient but in combination they were ideal.

The first questionnaire was developed in Brazil for schoolgoing girls at risk of pregnancy and focused on capturing their attitudes. Fifteen items from this questionnaire were included. The second questionnaire was developed in Indonesia for pregnant adolescent girls and adult women attending primary healthcare facilitates. This questionnaire focused on contraceptive knowledge and practices. Fourteen of the items in this questionnaire were included. These questionnaires were adapted for the South African context and for the objectives of the proposed study before administration (see Appendix A and B).

The researcher then added demographics to section one. In section two, both questionnaires above did not have any items asking about contraceptive knowledge acquired at school, and so item 12 was added. In section four, items 40 and 41 were added because the original instruments asked about how many pregnancies the respondent had but not whether they had ever been pregnant or the age at which they first fell pregnant.

3.11. Pretesting

In order to ensure validity and reliability of the questionnaire, it was pre-tested. One of the participating schools was contacted to take part in the pre-testing. A co-ordinating teacher assisted in identifying learners. Those who agreed to participate were then part of this initial phase. There was a total of 18 participants, their ages ranged from 12 - 15 years, and they were in grades 8 - 10. After collection of consent forms, participants gathered in the library where they were again reminded about the purpose of the study and that they could ask questions for clarity, and that this was the pre-testing phase for the questionnaire. They then completed the questionnaire and were asked again about any items that they might have felt were unclear or could have a dual meaning for them. There were 4 objectives for pre-testing the questionnaire:

- Test if the content and language use was appropriate for the participants and context and then adapt the questionnaire.
- Test clarity of items.
- Estimate the time it takes to complete the questionnaire.
- Test if items were able to be analysed appropriately as they are set out in the questionnaire.
- Test if additional items are needed.

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The questionnaire took 10 - 15 minutes to complete. Most participants finished within 10 minutes which was ideal as this was done during break time to ensure that there was no disruption of class time. Even though learners had to sacrifice their break time, they participated fully and engaged with the researcher when they struggled to interpret item 12 which was later removed as it was not significant to the study aim.

The content and language were found to be appropriate and learners were able to easily move from one item to another with minimal hassle. Changes in Appendix A are noted in the table below.

Item number	**Issue/concern**	**Old item**	**Adapted item**
5	Participants were unsure to include grade R or not	How many years of school have you completed up to now?	How many years of school have you completed up to now *(excluding grade R and current year)*?
8	Grammar	Have you ever heard about birth control/family planning?	Do you know what birth control/family planning is?
13	Grammar	Is it difficult to get access to birth control/family planning	It is difficult to get access to birth control/family planning
14	Grammar	The sex with a condom is not good.	Sex with a condom is not good.
26, 27, 30 and 31	Participants noted that there were no direct items about pregnancy and schooling.	None	• Birth control/family planning should be made available at school • I gain enough knowledge around

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			contraceptives at school • You can fall pregnant if you do not use birth control/family planning when sexually active • Falling pregnant may affect my school completion
33 - 36	This question was difficult to capture because it was five questions embedded in one.	Have you ever used birth control/family planning before? If yes, what method and how long? If no, are you planning on starting soon?	• Have you ever used birth control/family planning before? • **If no, ignore questions 34-35** • **If yes, ignore question 36** • If yes, what method? • If yes, how long? • If no, are you planning on starting soon?
37	Participants still answered this question even when it was not applicable to them.	What are your reasons for using birth control/family planning? *(Can choose more than one)*	What are your reasons for using birth control/family planning? *(Can choose more than one)* **Ignore if you are not using contraception or not sexually active**
38	Participants still answered this question even when it was not applicable to them.	What factors support your choice in the use of birth control/family planning? *(Can choose more than*	What factors support your choice the use of birth control/family planning? *(Can choose more than*

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		one)	*one)* **Ignore if you are not using contraception or not sexually active**
40 and 41	This confused participants because there was an embedded question in the original question.	Have you ever been pregnant? If yes, at what age?	Have you ever been pregnant? If yes, what age?

3.12. Data collection procedure

Ethical clearance for this study was received from the University of the Western Cape and the Western Cape Education Department, and the principals at the schools that were sampled were contacted to obtain approval. Six schools were randomly selected and the first 3 that agreed to participate were included in the study. Three schools refused to participate based on time and exam issues. The questionnaire was pre-tested at one school (these participants were not included in the final study) and then adjusted before the actual study commenced. After the instrument was finalised, it was then administered to the sample population.

The school principal or Life Orientation teacher/co-ordinating teacher assisted with recruitment of participants. All girls were informed about the study and, if they agreed to participate, were all given information sheets, parental consent and assent forms or just information sheets and consent forms. They were all informed that they should return these documents to the school secretary or co-ordinating teacher at an agreed date. Once all these documents had been returned to the school, the researcher sought a venue big enough for all participants at the school. At schools one and two, this was not possible. The researcher then arranged gatherings at different times in a designated classroom. To minimise time disruptions, arrangements was made to complete the questionnaire during the Life Orientation class as the topic of contraception was in line with the Life Orientation curriculum as outlined in the literature review, and the questionnaire only took 10 - 15 minutes to complete. On a set date, the researcher returned to the school and participants completed the questionnaire in the agreed venue. Participants were then informed that they could ask questions for clarity or choose not to participate further. Once the questionnaires were collected, they were checked for completeness before data capture and analysis.

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3.13. Validity

Validity refers to accuracy and the extent to which an instrument measures what it was intended to measure (Turnock & Gibson, 2001). Content validity was ensured by using items from previous studies in similar settings (Paiva *et al*., 2014; Santoso & Surya, 2017). Furthermore, construct validity was ensured by pretesting the instruments with participants who met the criteria. Selection bias was reduced by providing all girls with an equal opportunity to participate, and they had the choice to participate or not. A clearly defined population and inclusion and exclusion criteria also reduced selection bias. Because a cross-sectional study simultaneously collects exposure and outcome variables, loss to follow-up was not an issue. Measurement bias was minimised by pre-testing the instrument and then making changes before the actual survey took place. Furthermore, the questionnaire was available in both English and Afrikaans as these are the two dominant languages in the targeted community (39.5% and 52.92% respectively) (The Unit for Religion and Development Research, 2004). The primary researcher did all the data collection, which further minimised bias in the process.

3.14. Reliability

An instrument is reliable when it can be used by different researchers under stable conditions. Also related is whether the outcomes will be the same if the instrument is repeated. Furthermore, a reliable test is free of measurement errors (de Bruin, 2003). The instrument was standardised, meaning that all participants received the same questionnaire and in the same format, thus all questionnaires were recorded in the same manner. The original instruments were deemed reliable and they were then adapted for the South African context. The reliability of the adapted instrument was pre-tested by 18 participants with a similar profile and each item investigated after the pre-testing phase and appropriately revised. The instrument was then adapted for the context and the specific aims and objectives of the proposed study. The participants in the pre-test were not included in the final study but were used to determine the precision of the questionnaire in measuring contraceptive knowledge, attitudes and practices.

3.15. Data analysis

All data were captured in Microsoft Excel and analysed using the Statistical Package for Social Sciences (SPSS) 25.0.The study is a descriptive quantitative study. Therefore, most analysis was descriptive, consisting of frequency tables (percentages), measures of central tendencies, charts and cross tabulation, and data presented as such. Inferential statistics used to describe relationships between variables were the chi-square and *p*-values.

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To create a snapshot of the respondents, demographic information of respondents was presented in frequency tables. Measures of central tendencies for age were also calculated and presented in a table and bell-shaped curve.

The responses relating to knowledge of contraceptives was organised in either frequency tables or graphs, depending on the information presented. Frequencies and percentages were calculated for the Likert scale of attitudes, and presented in table form. The variables related to practices were presented in frequency tables, charts and cross tabulation (to determine possible association) depending on the information presented. Thereafter, frequency tables or charts were used to describe facilitators and barrier variables. Lastly, cross tabulations were done on knowledge, attitude and practices variables to look for possible associations, and then the chi-square was done on these variables to test statistical significance of the relationships.

3.16. Limitations of the study

The study focused on determining the knowledge, attitudes and practices of contraceptive use amongst female adolescents. It looked at associations too, but these cannot confirm causation. Furthermore, interventions are beyond the scope of the study, but it can inform interventions.

After receiving approval from the WCED, the schools also needed to agree to participate in the study; this took some time owing to various factors such as school holidays, Easter holidays and exam times. During these periods, limited access to school teachers and principals caused delays in having access to the learners. Some schools refused to participate in the study. Parental consent (a requirement owing to age of participants) also took some time to return to schools before the researcher could even have access to the learners. Due to these factors, an extension of approval from the WCED had to be sought as no data collection besides pretesting could be done during the first two terms of school. This left only the third school term to complete the collection of consent and assent forms as well as data collection as the WCED imposed restrictions on access to schools in the fourth term.

The researcher was careful to take a representative sample from the schools that were selected. However, this may not have been a representative sample of the whole community or the adolescent girls in the community who were not at school. Thus, caution should be applied when attempting to generalise the study findings to the larger South African population. The results are generalisable to the adolescent girls currently at schools in the selected community.

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Possible participants who were not present when the study was explained did not have the same information or opportunity to participate in the study as those who were present. Possible participants who later decided to take part in the study (i.e. after data collection had been completed) were also not able to participate.

3.17. Ethics statement

Before data collection commenced, ethical clearance was sought from the University of the Western Cape's Biomedical Research Ethics Committee (BM19/8/21) and the WCED's research directorate. Once clearance was received, the principals at selected schools were contacted to request permission. When they agreed, the learners were recruited. Those schools that declined were not included in the final sample.

The questionnaire does not have questions that may cause participants to experience emotional discomfort; however, if this were to happen, the researcher would contact a mental health professional to provide debriefing (one-on-one single session followed by further referral if necessary); alternatively, a referral to an appropriate organisation would be made. Fortunately, there was no need for debriefing. The researcher assured informed consent by beforehand providing adequate information to all participants and parents of the nature of the study, potential impact of the research, anonymity and confidentiality. Participants aged 12 - 17 required parental consent. Therefore, parents were provided with information sheets (Appendix E and F) and a parental consent form (Appendix G and H). Participants were provided information sheets (Appendix C and D) as well as assent forms (Appendix I and J). Participants 18 years and older were provided with an information sheet and a consent form (Appendix K and L).

Throughout the research process, participants were informed that they had the right to withdraw from the study at any time. To assure anonymity and confidentiality, identifying information was not collected from participants, and no information was given to a third party. Once the questionnaires were collected, they were kept in a secure locked cabinet until they were captured and analysed and returned to this cabinet after analysis. The electronic data were kept on a computer that was password protected and only used by the researcher, and do not include any identifying information about participants. Findings were disseminated by means of a mini-thesis and also by journal articles. Anonymity of participants would still be maintained as no identifying information was entered at the point of data collection.

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CHAPTER FOUR

RESULTS

4. Introduction

The chapter is divided into five sections. The first section outlines the demographic information of respondents in order to create an overall view of them; this is presented in frequency tables. Measures of central tendencies and of age are also presented in tabular form and a bell-shaped curve. The second section outlines the responses of participants relating to their knowledge of contraceptives. This is arranged in either frequency tables or graphs, depending on the information presented. The third section highlights the attitudes and perceptions of respondents in tabular form with frequencies and percentages. The fourth section deals with the practices of respondents; this is presented in frequency tables, charts and crosstabs. The final section highlights factors contributing to contraceptive use or non-use and is presented by frequency tables or charts. All data analyses in this section were done on SPSS 25.0.

4.1. Demographic information

All respondents (*N*=371), were schoolgoing adolescent girls from a low-socio-economic community in Cape Town. School one and three had 124 respondents each and school two had 123 respondents.

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4.1.1. Age, grade and relationship status of respondents

Respondents were aged 12 - 19 years. They were all currently enrolled at three secondary schools. Girls over the age of 19, and under 12, were excluded from the study. Table 1 illustrates that most of the girls were aged 13 - 18, with the biggest age group being 15 years old (26.1%, *n* = 97). Five respondents did not fill in their age. The mean, median and mode of the ages are not equal, as illustrated in figure 2 below. The ages of respondents follow somewhat of a natural curve, however in reality it is slightly skewed to the right.

Table 1: Ages of respondents

Age	**Percentage (*N*=371)**
12	2.4
13	14.6
14	23.7
15	26.1
16	16.7
17	7.8

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18	5.7
19	1.6
Missing	1.3

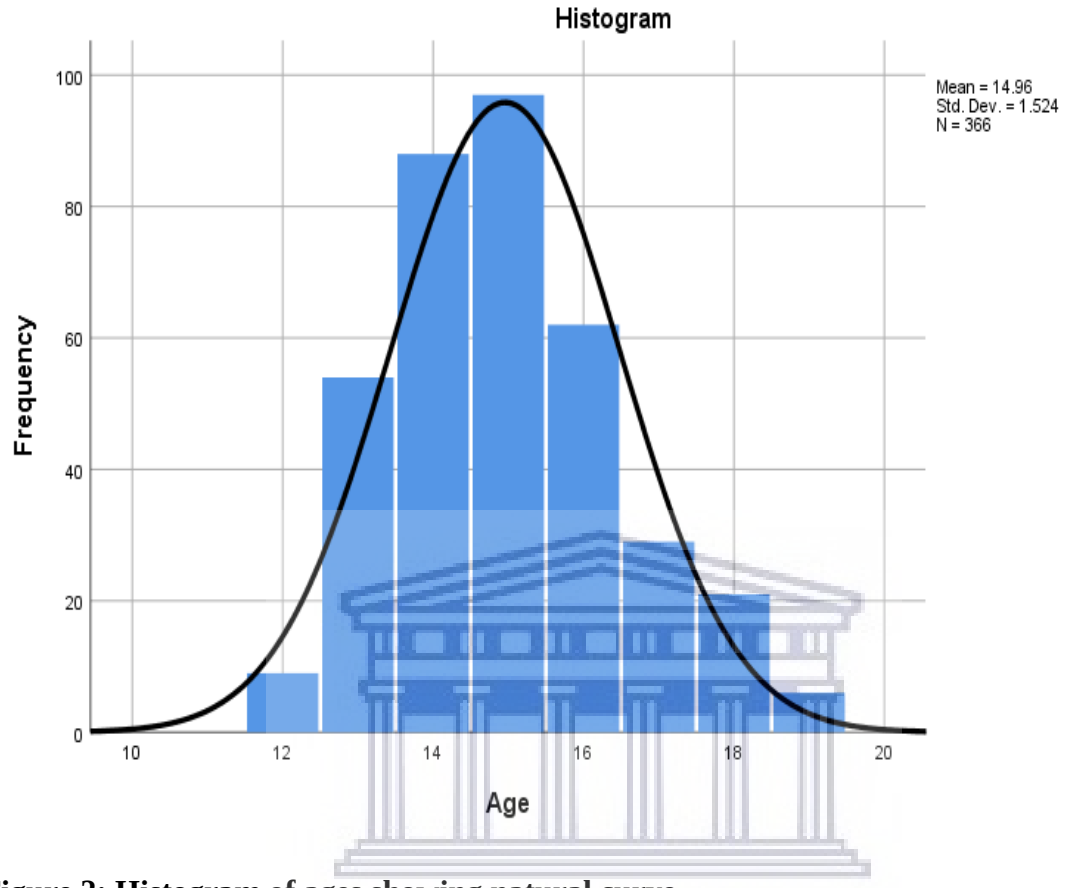

Figure 2: Histogram of ages showing natural curve

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In Table 2 the grades of respondents are presented. These ranged from grade 8 to grade 11 (*N*=371). The schools requested that no grade 12s participate to ensure that there is no disruption in their contact time as they are gearing up for exams. Majority of the respondents were grade 8 (29.6%, *n*=110) followed by grade 9 (22.4%, *n*=83) and then 10 (29.4%, *n*=109). Grade 11(17.3%, *n*=64) had the least respondents.

Table 2: Frequency of grades of respondents

Grade	**Percentage (*N*=371)**
8	29.6
9	22.4
10	29.4
11	17.3
Missing	1.3

In Table 3, most of the respondents as seen above are single (61.7%, *n*=229). Next are almost a quarter (23.5%, *n*=87) who are in a serious relationship. This figure is followed by 11.3%

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(*n*=42) of the participants who are in a non-serious relationship. Respondents who are engaged and married make up 1.3% (*n*=7) of the sample population.

Table 3: Relationship status of respondents

Relationship status	Frequency (*N*=371)	Percentage (*N*=371)
Single	229	61.7
Non-serious relationship	42	11.3
Serious relationship	87	23.5
Engaged	2	.5
Married	3	.8
Missing	8	2.2

4.1.2. Race, home language and religion of participants

Figure 3 illustrates that the majority of respondents were coloured (88.4%, *n*=328) with blacks being 9.7% (*n*=36) and whites (1.1%, *n*=4). There is a missing value for 3 respondents. No other races were identified even though respondents had the opportunity to select others.

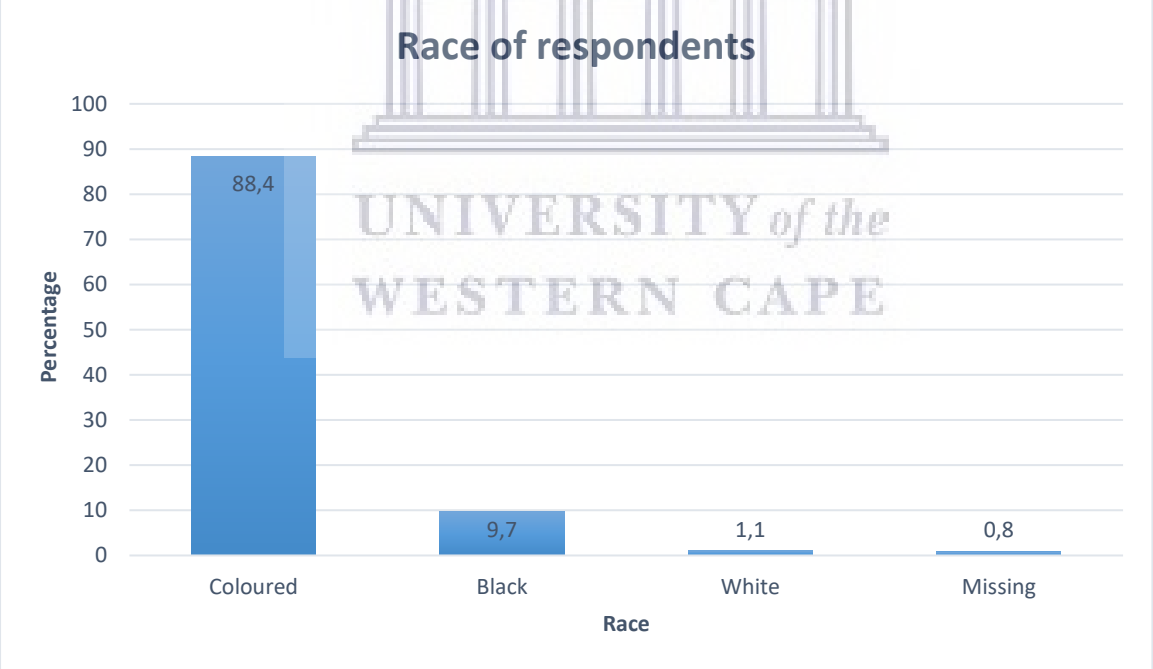

Figure 3: Race of respondents

Figure 4 illustrates that the most common religion was Christianity (63.9%, *n*=237), then Islam (32.9%, *n*=122), followed by 'Other' for 0.6% (*n*=2) of respondents, whilst 2.7% (*n*=10) of respondents did not answer the question.

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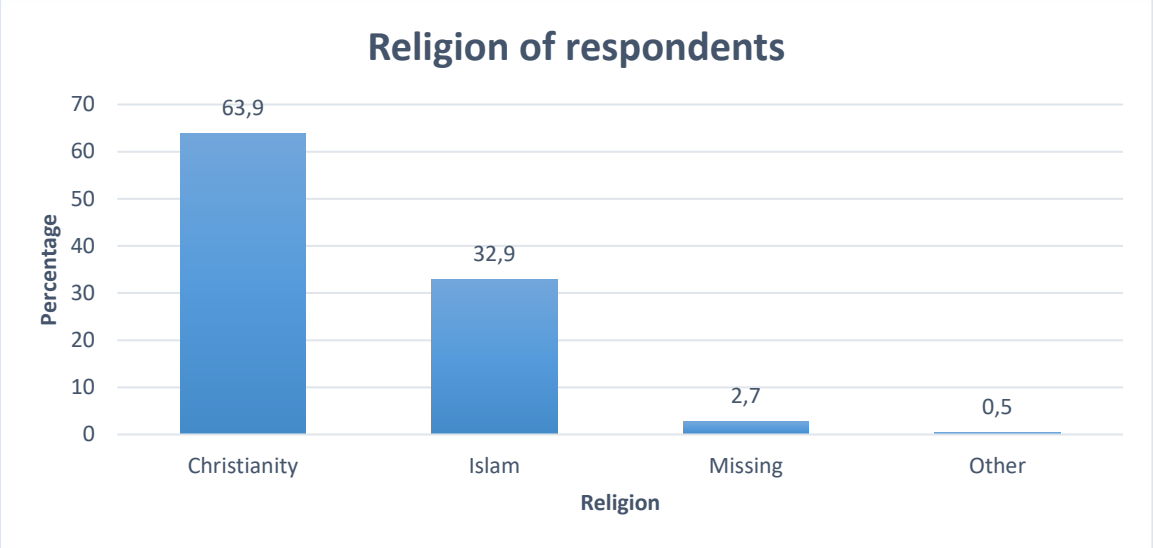

Figure 4: Religion of respondents

Figure 5 illustrates that English was the predominant home language amongst respondents (73.0%, *n*=271), followed by Afrikaans (17.8%, *n*=66) and then isiXhosa (6.2%, *n*=23). There were 3% (*n*=11) respondents who did not answer this question.

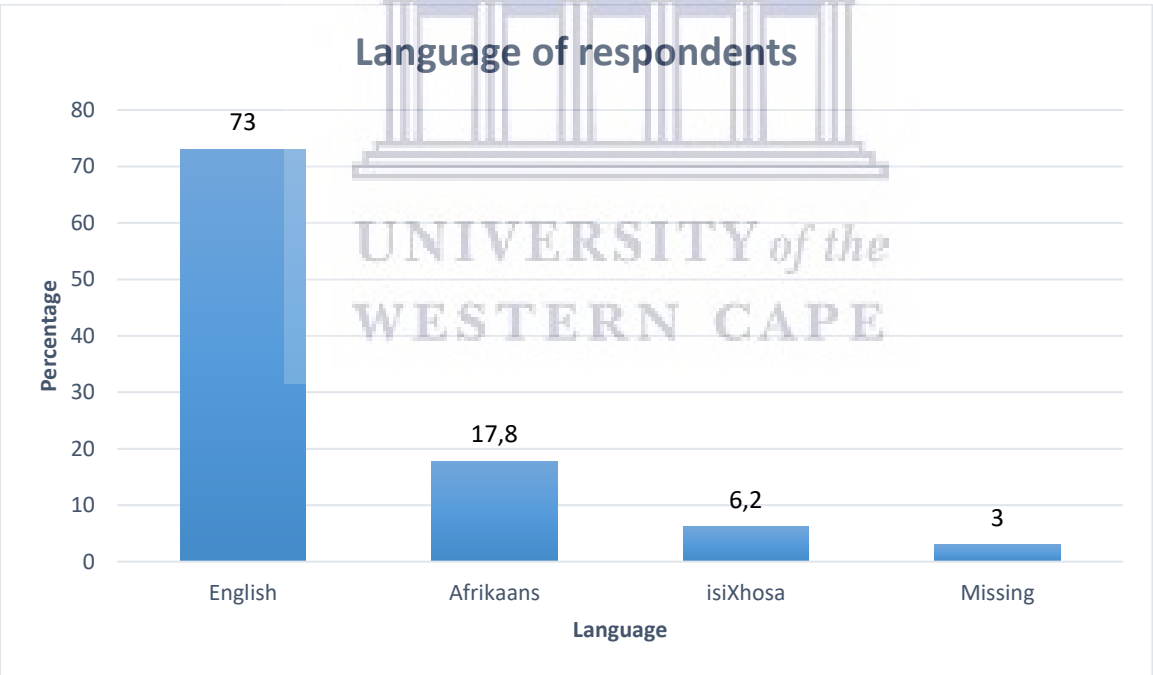

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Figure 5: Home language of respondents

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4.2. Contraceptive knowledge

4.2.1. Knowledge of contraceptives

Figure 6 shows that the majority (97%, *n*=360) of respondents answered Yes when asked if they knew what contraceptives were; only 3% (*n*=11) answered No.

Figure 6: Knowledge of contraceptives

4.2.2. Knowledge of various methods of contraception

Those respondents who answered Yes to knowing what contraceptives were had to then select the method of contraception they had knowledge of. Table 4 illustrates that very few respondents knew about intrauterine devices (6.5%, *n*=24), the calender method (7.8%, *n*=29) and lactation amenorrhea (0.3%, *n*=1)). There were also low figures for the withdrawal method (18.1%, *n*=67), sterilisation (15.9%, *n*=59) and implant (15.9%, *n*=71). More than half of the respondents knew condoms (61.7%, *n*=229) and the pill (65%, *n*=241).The majority (81.1%, *n*=301) of participants knew about the injection. The morning-after pill also showed a high percentage, with 41.0% (*n*=152) of respoindents knowing what it was.

Table 4: Knowledge of various contraception methods

Contraception method	**Yes (*N*=371)**
Intrauterine device	6.5%
Calendar method	7.8%
Lactation amenorrhea method	0.3%
Condom	61.7%
Pill	65.0%

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Injection	81.1%
Morning-after pill	41.0%
Withdrawal method	18.1%
Sterilisation	15.9%
Implant	15.9%

4.2.3. Knowledge of access to contraceptives

The respondents then had to select places where they could obtain contraceptives. The first four were correct and the last one (school) was incorrect as they were not allowed to obtain contraceptives at school. However, 3.5% (*n*=13) of respondents still said Yes to school even though this was a trick option. No contraceptives were distributed at schools. Most of the respondents said one can access them at a clinic (86.8%, *n*=322). Almost half (47.4%, *n*=176) of the respondents said one can obtain them at a hospital. And 35.0% (*n*=130) said one can obtain contraceptives from a doctor. Only 28.6% (*n*=106) of respondents said one can obtain them at a pharmacy. There was an option for 'Other' but no respondents chose that.

Table 5: Sources of contraceptives

4.2.4. Sources of information about contraceptives

Contraceptive sources	**Yes (*N*=371)**
Clinic	86.8%
Hospital	47.4%
Pharmacy	28.6%
Doctor	35.0%
School	3.5%

Figure 7 illustrates the sources of contraceptive knowledge. Respondents said that they acquired their contraceptive information from all the sources listed below, with school being the main source (82.7%, *n*=307). More than half (66.3%, *n*=246) of the respondents said that Health Works was a source of contraceptive information. Almost half (48.8%, *n*=181) of respondents said that family members provided them with contraceptive information. The other figures were all less than half (TV=27.5% (*n*=102), friends= 28.1% (*n*=108), newspaper/magazines= 19.9% (*n*=74)) and radio 7.5% (*n*=28). Most (83.6%, *n*=310) respondents said they learned about contraceptives at school. Only 16.4% (*n*=61) said they did not learn about them at school.

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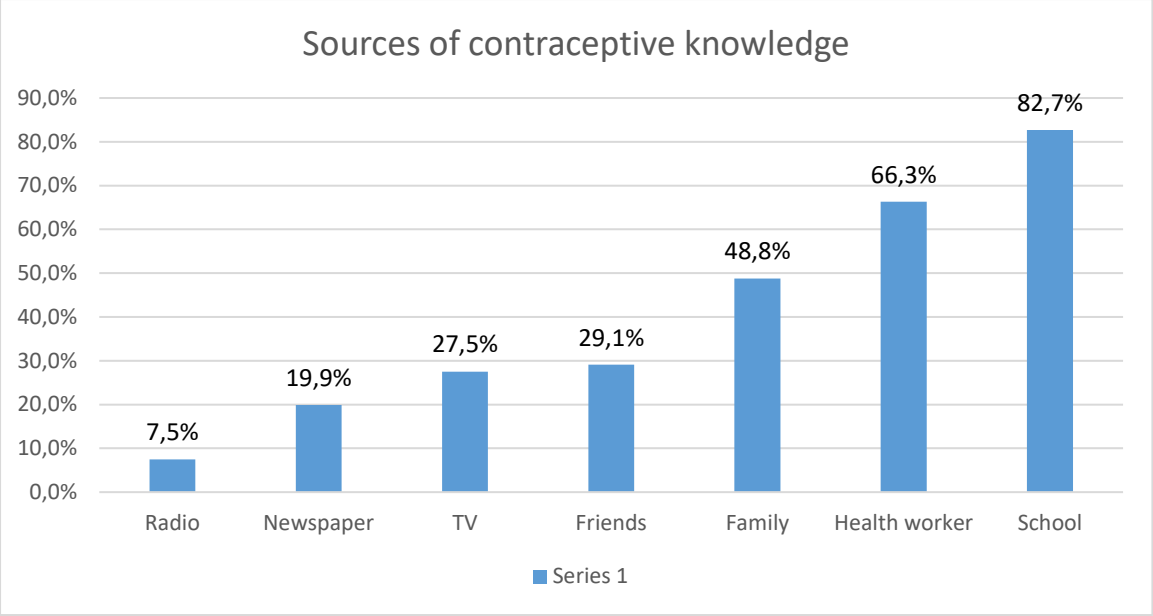

Figure 7: Sources of contraceptive knowledge

4.3. Attitudes towards contraceptives and pregnancy

Almost 55% of respondents (53.9%, *n*=195) said that contraceptives were not difficult to access. Less than half (34.5%, *n*=124) said that it was difficult. More than half (57.3%, *n*=211) disagreed (or strongly disagreed) that sex with a condom 'is not good'. Only 23.9% (*n*=88) of respondents said that it was not good. Half of the respondents (50.9%, *n*=177) said that using contraceptives did not show mistrust, and only 22.1% (*n*=77) said that it did. When asked if contraceptives increase commitment in the relationship, the number of respondents who agreed (37.4%, *n*=130) and disagreed (32.2%, *n*=112) were close. Almost 50% (46.7%, *n*=171) of respondents said that they did not have difficulty talking about sex with their friends and partners. A total of 38.8% (*n*=142) of respondents said that they did have difficulty talking about sex with their friends or partners.

Almost half of the respondents (45.7%, *n*=166) said that the pill and injection affect female health. Less than a third (22.8%, *n*=83) said it did not. Similarly, half of the respondents (50.5%, *n*=182) said that the pill and injection were fattening, and only 13% (*n*=47) said it was not. A majority of respondents (43.7%, *n*=161) said that it was difficult to become pregnant after using contraceptives whilst 20.2% (*n*=74) said it was not. Less than half of respondents (44.5%, *n*=160) thought that contraceptives were a female problem. But 30.8% (*n*=111) disagreed and said that it was not only a female problem. More than half (53.7%, *n*=195) of respondents thought that contraceptives provide them with increased sexual freedom. Only 17% (*n*=65) thought that it did not. Most of the respondents (45.2%, *n*=163)

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thought that pregnancy was more fattening than contraceptives; and less than a third (21.6%, *n*=78) said that contraceptives were more fattening than pregnancy. Almost 80% of respondents thought that contraceptives were the responsibility of the couple (76.9%, *n*=279) and not just one person (8.9%, *n*=32).

Most respondents (75.3%, *n*=286) agreed that knowledge of contraceptives should be taught at school. A small percentage of respondents (8.5%, *n*=31) thought it should not be taught at school. Almost 50% of respondents thought that contraceptives should be available at school (43.5%, *n*=159), with more than a third saying they should not be available at school (39.4%, *n*=144). Respondents were divided when asked if they had learned enough about contraceptives at school. Almost 40% thought they did (39.1%, *n*=142) v. 35.2% (*n*= 128) saying they did not. Almost 90% of respondents thought it was important to know the methods of contraception before starting a sexual relationship (84.3%, *n*=311) whilst a minority (6.5%, *n*=24) thought not. More than a third of respondents (38.8%, *n*=140) thought there were no difficulties using contraceptives, with less than a third (22.7%, *n*=82) saying there were. Most respondents (78.1%, *n*=289) said that one can fall pregnant if one is sexually active and not using contraceptives, with a minority of 9.5% (*n*=35) saying one cannot fall pregnant under those circumstances. Lastly, almost 90% of respondents thought that falling pregnant would affect their school completion (86.2%, *n*=319) with a minority saying it would not (6.3%, *n*=23).

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Table 6: Attitudes of respondents

Attitude	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
It is difficult to get access to contraceptives.	27.5%	26.4%	11.7%	12.8%	21.7%
Sex with a condom is not good.	30.4%	26.9%	18.8%	14.4%	9.5%
Using contraceptives shows mistrust in your partner.	25.3%	25.6%	27.0%	13.5%	8.6%
Using contraceptives increases commitment in your relationship.	14.1%	18.1%	30.5%	23.0%	14.4%
I have difficulty talking about sex with my friends/partners.	22.1%	24.6%	14.5%	19.9%	18.9%
The pill and injection affects female health.	8.5%	14.3%	31.1%	22.6%	23.1%
The pill and injection are fattening.	3.3%	9.7%	36.4%	37.2%	13.3%
After using contraceptives it is difficult to become pregnant.	6.8%	13.4%	36.0%	23.7%	20.2%
Contraception is a female problem.	11.4%	19.4%	24.7%	30.3%	14.2%
Contraception provides more sexual freedom.	6.3%	11.6%	28.4%	30.0%	23.7%
Pregnancy is more fattening than the use of the pill or injection	8.3%	13.3%	33.2%	26.6%	18.6%
Contraception should be the responsibility of the couple.	3.9%	5.0%	14.3%	33.9%	43.0%
Knowledge around contraception should be taught at school	2.7%	5.8%	13.2%	34.5%	43.8%
Contraception should be available at schools.	21.9%	17.5%	17.2%	21.9%	21.6%
I gain enough knowledge about contraception at school.	11.8%	23.4%	25.6%	25.3%	13.8%
It is important to know the methods of contraception before starting sexual relationships.	3.0%	3.5%	9.2%	31.7%	52.6%
There are no difficulties in using contraceptives.	7.5%	15.2%	38.5%	24.1%	14.7%
You can fall pregnant if you do not use contraceptives while sexually active.	4.9%	4.6%	12.4%	28.1%	50.0%
Falling pregnant may affect my school completion.	4.1%	2.2%	7.6%	25.1%	61.1%

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4.4. Practices

4.4.1. Sexual practices and pregnancy statistics

More than three-quarter (75.2%, *n*=279) of respondents were not sexually active, and approximately a quarter (24.3%, *n*=90) were sexually active. Most respondents (90%, *n*=334) had never been pregnant, and 8.1% (*n*=30) had been pregnant. Two respondents left these two questions unanswered.

Table 7 below illustrates that of the respondents who were sexually active, a third (33.7%, *n*=30) fell pregnant.

Table 7: Cross tabulation between sexual activity and pregnancy

Respondent data			**Ever pregnant**		**Total**
			Yes	**No**	
Are you sexually active?	Yes	*n*	30	59	89
		% of total	33.7%	66.3%	100%
	No	*n*	0	274	274
		% of total	0.0%	100%	76.0%

Table 8 below shows that age 12 indicated no sexually active respondents. Age 13 showed the lowest sexual activity (9.3%, *n*=5) and pregnancy (1.9%, *n*=1). Age 19 reflected both the highest sexual activity (66.7%, *n*=4) and pregnancy rate (66.7%, *n*=4).

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Table 8: Cross tabulation of age, sexual activity and pregnancy

Age	**Sexually active**	**Ever been pregnant**
	Yes	**Yes**
12	0.0%	0.0%
13	9.3%	1.9%
14	23.9%	4.5%
15	23.7%	7.5%
16	32.2%	13.6%
17	48.3%	10.3%
18	19.0%	14.3%
19	80%	80%
n	90	30

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4.4.2. Contraceptive practices

Most (88.7%) respondents said they had never used contraceptives. Only 9.4% had ever used contraception, and 1.9% (*n*=7) did not respond.

When determining the relationship between sexual activity and the use of contraceptives, it was found that 64.8% (*n*=57) of sexually active respondents had not been using contraceptives. A chi-square test was done on these two variables and a significant relationship was found between sexual activity and contraceptive use ($\chi 2$ (1, *n*=362) = 95.7, *p*=0.000).

Table 9: Cross tabulation between sexual activity and contraceptive use

	Ever used contraceptives	
	Yes	No
Sexually active		
Yes	35.2% (*n*=31)	64.8% (*n*=57)
No	0.7% (*n*=2)	99.3% (*n*=272)
Total	9.1% (*n*=33)	90.9% (*n*=329)

Figure 8 below presents the respondents who were using contraceptives; 4% (*n*=15) were using the injection, followed by the pill (1.7%, *n*=6) and then the combination of injection and pill (0.8%, *n*=3). The morning-after pill, implant, combination of injection and morning-after pill and condom use were all equal at 0.3% (*n*=1).

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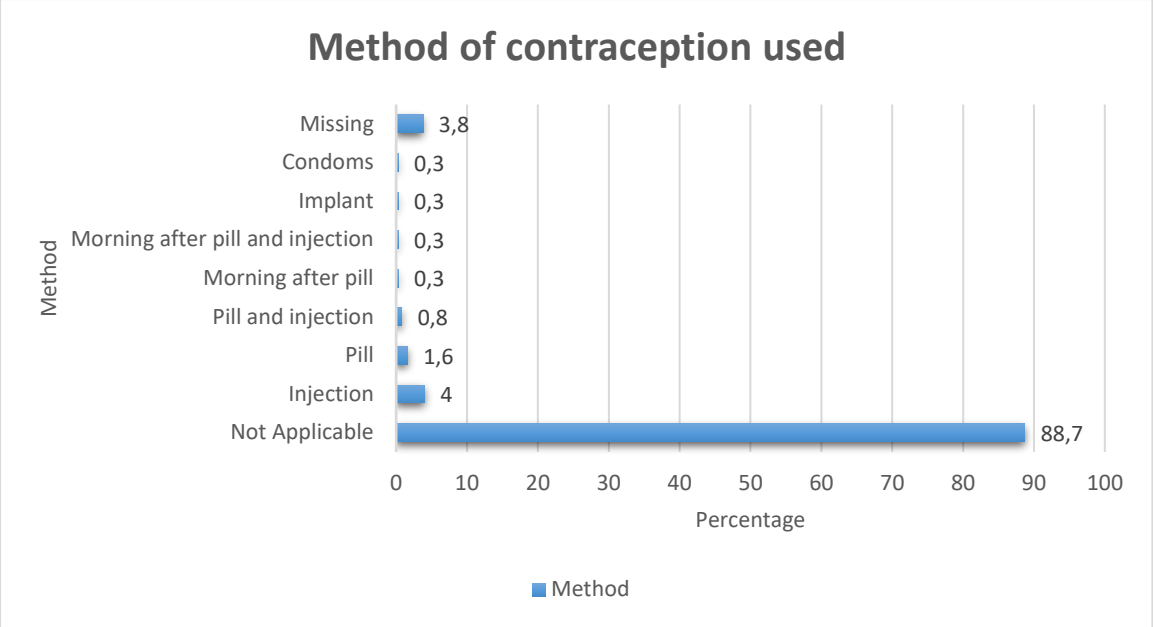

Figure 8: Method of contraception used

Table 10 below shows that a majority of respondents were using contraceptives for only the previous 12 months (4.6%, *n*=17). Those using contraceptives for 1 - 2 years numbered 1.2% (*n*=5), followed by 2 - 3 years (1.1%, *n*=4). The lowest number of respondents (0.3% (*n*=1)) had been using contraception for more than 3 years. It can be noted that frequency decreases as years of use increases, which means that more respondents have been using contraceptives for a shorter time.

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Table 10: Years using contraceptives

Years using contraceptives	Percentage
0 - 1 years	4.6
1 - 2 years	1.3
2 - 3 years	1.1
3 - 4 years	0.3
Not applicable	88.7
Missing	4.0
Total	100

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Table 11 illustrates that of those respondents not using contraceptives, only 14.6% (*n*=54) said they were thinking about starting to use them soon; however, the majority said they were not wanting to start use any time soon (74.1%, *n*=275).

Table 11: Respondents who want to start using contraceptives

Yes	14.6
No	74.1
Not applicable	8.4
Missing	3
Total	100

4.5. Factors affecting contraceptive practices

4.5.1. Facilitators

In Table 12 below, most of the respondents said the biggest factor that contributed to their use was hearing about them from friends and family (10.2%, *n*=38). This was followed by the fact that it was free (9.4%, *n*=35) and that they believed it had less side-effects than other methods (5.1%, *n*=17). Respondents said that hearing about contraceptives from teachers also facilitated their use (3.3%, *n*=12). The fact that they were advertised and partners wanted to use them facilitated their use too (both 2.2%, *n*=8).

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Table 12: Reasons for using or wanting to use contraceptives

	Yes	**No**	**Not applicable**
It is free	9.4%	14.0%	76.5%
It has few side-effects	5.1%	18.3%	76.5%
They advertise it	2.2%	21.3%	76.5%
My partner wants me to	2.2%	21.3%	76.5%
I heard about it from friends or family	10.2%	13.2%	76.5%
I heard about it from teachers	3.3%	20.2%	76.5%

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Table 13 below shows the facilitators to contraceptive use as identified by respondents. Most respondents (17.5%, *n*=65) said their reason for using or wanting to use contraceptives was to prevent pregnancy. Next was wanting to prevent STIs including HIV (8.9%, *n*=33), followed by wanting to be healthy and have healthy children (6.5%, *n*=24) and lastly respondents who were advised by a doctor or nurse to use them (1.6%, *n*=6).

Table 13: Factors contributing to contraceptive use

	Yes	No	Not applicable
I want to be healthy and have healthy children	6.5%	18.1%	75.5%
To prevent pregnancy	17.5%	7.0%	75.5%
To prevent sexually transmitted infections (STIs) including HIV	8.9%	15.6%	75.5%
A doctor/nurse told me to use it	1.6%	22.9%	75.5%

4.5.2. Barriers

Eight barriers were identified by respondents. Respondents said that the biggest barrier to contraceptive use was fear of the side-effects (32.9%, *n*=122). The second barrier was the wish to have children (30.7%, *n*=114), followed by not knowing enough about contraceptives (29.6%, *n*=110). Respondents also identified a barrier in that their parents or family did not want them to use contraceptives (11.1%, *n*=41), followed by the fact that their religion or culture did not allow it (10.2%, *n*=38). Less than 5% of respondents used the withdrawal method (4.6%, *n*=17), followed by the last 2 barriers which were that their partners were against their use (3.5%, *n*=13) and that their partner was unable to have children (0.3%, *n*=1). There was an option for other which 2.1% (*n*=7) respondents chose but they did not specify what the barrier was.

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Table 14: Factors contributing to contraceptive non-use

Factor	Yes	No	Not applicable
I want to have children	30.7%	60.9%	8.4%
I do not know enough about birth control/family planning	29.6%	62.0%	8.4%
I am afraid of the side effects of birth control/family planning	32.9%	58.8%	8.4%
It is against my religion/culture	10.2%	81.4%	8.4%
My parents/family does not allow me to use birth control/family planning	11.1%	80.6%	8.4%
My partner does not allow me to use birth control/family planning	3.5%	88.1%	8.4%
My partner cannot have children	0.3%	91.4%	8.4%
I am using the 'pull out' method	4.6%	87.1%	8.4%
Other	0.0%	100.0%	0.0%

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4.6. Relationships between exposure and outcome variables (knowledge, attitudes and practices)

The statistics used were the chi-square and *p*-values to describe the significance of the relationship (95% CI and 5% margin of error) between knowledge, attitudes and practices. Knowledge here refers only to having knowledge of contraception. Attitudes are all the attitudes in the questionnaire, whilst practice here refers only to whether or not respondents were using contraceptives.

There was no significant relationship between knowledge and practice. This may indicate that knowledge does not influence practice; it also means that practice is not an outcome variable when exposed to knowledge.

Regarding knowledge and attitude variables, the statistics yielded 6 significant relationships.

1. A significant relationship was observed between knowledge and the attitude 'It is difficult to get access to contraceptives' ($\chi 2$ (4, n=360) =9.45, p=0.05). A majority of participants strongly disagreed or disagreed with this statement (n=194) and most of them were

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knowledgeable about contraception (*n*=193). This meant that almost everyone who believed that contraceptives were easy to access, had knowledge of contraceptives.

2. Knowledge and the attitude 'I have difficulty talking about contraceptives to my friends/partners' yielded a significant relationship (($\chi 2$ (4, *n*=366) =11.63, *p*=0.02). A majority of participants strongly disagreed or disagreed with this statement (*n*=171) and most of them were knowledgeable about contraceptives (*n*=165).

3. There was a statistically significant relationship between knowledge and the attitude 'The pill and injection are fattening' ($\chi 2$ (4, *n*=360) =10.67, *p*=0.03). A majority of participants strongly agreed or agreed with this statement (*n*=182) and most of them were knowledgeable about contraceptives (*n*=181).

4. The relationship between knowledge and the attitude 'Contraceptives provide more sexual freedom' was found to be significant ($\chi 2$ (4, *n*=363) =10.56, *p*=0.03). A majority of participants strongly agreed or agreed with this statement (*n*=195) and most of them had knowledge of contraception (*n*=192).

5. A statistically significant relationship was found between knowledge and the attitude 'Contraception should be the responsibility of the couple' ($\chi 2$ (4, *n*=363) =19.39, *p*=0.001). This relationship appeared to be stronger than all the others. Most participants strongly agreed or agreed with this statement (*n*=279) and most of them had knowledge of contraception (*n*=275).

6. Knowledge and the attitude 'It is important to know the methods of contraception before starting a sexual relationship' yielded a statistically significant relationship ($\chi 2$ (4, *n*=369) =10.53, *p*=0.03). A majority of participants strongly agreed or agreed with this statement (*n*=151) and most of them had knowledge of contraception (*n*=142).

When trying to determine if there were any relationships between practice and attitudes, 4 statistically significant relationships were found:

1. A statistically significant relationship was found between practice and the attitude 'It is difficult to get access to contraception' ($\chi 2$ (4, *n*=353) =10.73, *p*=0.03). A majority of participants strongly disagreed or disagreed with this statement (*n*=188). Of these, 25 were using contraceptives, which accounted for 71% of the participants who were using contraceptives. Therefore the majority of those using contraceptives did not think that it was difficult to access contraceptives.

2. There was a statistically significant relationship between practice and the attitude 'Contraception is a female problem' ($\chi 2$ (4, *n*=353) =11.05, *p*=0.02).A majority of

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participants strongly agreed or agreed with this statement (*n*=156). However, over 50% of participants who were using contraceptives strongly disagreed or disagreed with this statement (54.3%, *n*=19). Therefore a majority of participants who were using contraceptives did not think that it was only a female problem.

3. Practice and the attitude 'Contraceptives provide more sexual freedom' yielded a statically significant relationship ($\chi 2$ (4, *n*=356) =9.68, *p*=0.05). Most participants who were using contraceptives either strongly agreed or agreed with this statement (*n*=26, which accounted for 74% of participants who were using contraceptives).

4. A statistically significant relationship was found between practice and the attitude 'Contraceptives should be available at schools' ($\chi 2$ (4, *n*=360) =17.93, *p*=0.001). Most participants who were using contraceptives (*n*=27, i.e. 77% of participants who were using contraceptives) strongly agreed or agreed with this statement.

Table 15: Relationships between knowledge and practice and attitudes

		Knowledge	**Practice**
Knowledge	chi square		0.004
	Sig (2-tailed)		0.95
Practice	Pearson chi square	0.004	
	Sig (2-tailed)	0.95	
Attitudes (that were found to be significant)			
It is difficult to get access to contraception	chi square	9.45	10.73
	Sig (2-tailed)	0.05	0.03
I have difficulty talking about sex with my friends/partners	chi square	11.63	
	Sig (2-tailed)	0.02	
The pill and injection are fattening	chi square	10.67	
	Sig (2-tailed)	0.03	
Contraception is a female problem	chi square		11.05
	Sig (2-tailed)		0.02
Contraception provides more sexual freedom	chi square	10.56	9.68
	Sig (2-tailed)	0.03	0.05
Contraception should be the responsibility of the couple	chi square	19.36	
	Sig (2-tailed)	0.001	
Contraception should be available at schools	chi square		17.93
	Sig (2-tailed)		0.001
It is important to know the methods of contraception before starting sexual relationships	chi square	10.53	
	Sig (2-tailed)	0.03	

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4.7. Summary of the chapter

This chapter analysed and presented results from the self-administered questionnaires completed by schoolgoing female adolescents in secondary schools. The chapter focused on demographics, knowledge, attitudes and practices. The chapter presented mostly descriptive statistics but also inferential statistics in the form of chi squares and *p*-values. Chi square values were also calculated for sexual activity and contraceptive practices. There was a significant relationship found between these two variables which means that there was a relationship between sexual activity and contraceptive use. The findings also highlighted relationships between knowledge, attitudes and practices. There was no significant relationship between knowledge and practices. However, there were significant relationships between knowledge and attitudes as well as attitudes and practices.

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CHAPTER FIVE

DISCUSSION

5. Introduction

This chapter is aligned with the conceptual framework outlined in Chapter Two. The framework is known as the knowledge, attitudes and practices (KAP) model (Bano *et al*., 2013; Kishore, 2016; Rav-Marathe *et al*., 2016; WHO, 2012), and it aligns with the study design and objectives of the study. It is important to note that the outcome variable is practices. This discussion includes aspects reported on in the previous chapter, including the relationship between the KAP variables.

5.1. Respondents

The respondents were adolescent females aged 12 - 19; their ages were slightly skewed to the right which means that more participants were between the ages of 12 and 15. This could be attributed to the fact that those age groups returned their consent forms first. The largest group of respondents were aged 15 which corresponds with the mean grade which was 9. The younger respondents were those who returned their consent forms first. Most of the respondents identified themselves as single (61.7%) with 36.1% being in a relationship (serious, non-serious, engaged or married). This finding may then be why only 24.4% of the respondents were sexually active. The most commonly spoken languages in Cape Town were English, Afrikaans and isiXhosa (Statistics South Africa, 2011b) and the same trend was observed in the results too.

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5.2. Knowledge

Most (97%) of the girls were aware of what contraceptives are which is similar to a study by Müller *et al*. (2016) who also found that the majority (99.2%) of unmarried females (in their study) had knowledge of contraceptives.

As seen in the results section above, this knowledge could be attributed to various sources of information, the foremost being school or teachers (83.6%). Santoso, Surya, & Hakim, (2018) found that 95.4% of respondents said that they gained their contraceptive knowledge from formal education. The reason why school was foremost could be attributed to the fact that the respondents were at school 8 hours a day, 5 days a week. However, the totality of knowledge cannot be attributed to school as there are many other sources of information where adolescents can obtain information about contraceptives. Furthermore, it would be expected for 100% of respondents to say that they got contraceptive knowledge from school as it is

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part of the curriculum. However, this was not the case. Müller *et al*. (2016) argue that this is because teachers do not relay sexual and reproductive health messages effectively, and hence learners do not grasp such knowledge or other important information.

Respondents in the study identified 6 other sources of contraceptive knowledge, though none ranked higher than school. Health workers were second (66.3%); they could be health workers who visited the school or health workers at clinics or hospitals that learners attended. The third-highest source of information was family (48.8%). There was no distinction between the family members from whom they received information. More than a quarter of respondents said they got their information from friends, with TV at 27.5% and newspapers or magazines at 19.9%. Only 7.5% of respondents said they acquired contraceptive knowledge from the radio. A similar study by Santoso & Surya (2017) found similar results, i.e. that respondents gained their knowledge from health workers (63.3%), family (25.25%), TV (23.2%), friends (18.5%), radio and magazines (7.7%), and newspapers (7%). Some of the media sources of information were low; this could be attributed to the fact that adolescents and youth use the internet and social media as a form of information development and sharing. New-age sources of media have now become the most prominent form of knowledge creation. Thus it is interesting that none of the respondents said that social media were one of the sources of their contraceptive knowledge. This was not one of the choices on the questionnaire but there was an option for other, which no one chose.

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The present study found that the 3 main contraceptives which respondents were aware of was injection (81.1%), the pill (65.0%), and condoms (61.7%). Less than 1% knew what the lactation amenorrhea method was. Few knew about sterilisation (15.9%) and the intrauterine device (6.5%). A similar trend was seen in a study of adolescents in South Africa *(*Chersich *et al.*, 2017) where injection was the most commonly known contraceptive, followed by the pill. However, they also found that adolescents were knowledgeable about sterilisation (73.3%) and intrauterine devices (50%), which was contrary to the present study.

Respondents were also asked from which sources they can obtain contraceptives. The majority (86.8%) said that one can access them at clinics, which is often the most-used source for adolescents to access contraceptives because they are free, and easy to visit. There is also no need for parental consent when accessing a clinic (National Department of Health, 2017). Almost half of the respondents said one can obtain them at hospitals at all levels of care but this usually is a longer procedure than accessing them at clinics. There are clinics designated

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for adolescents to access contraceptives, called adolescent-friendly clinics that are part of the Adolescent and Youth Policy, to increase access to health services for adolescents (National Department of Health, 2017). Respondents also said that one can access them from doctors (35%) and pharmacies (28.6%). Adolescents are less likely to access contraceptives from these sources because they would have to have funds to pay for them. As noted above, one of the factors that contributed to use was the fact that contraceptives were free (9.4%). There were some (3.5%) respondents who said that one can access contraceptives at school, but this was incorrect because contraceptives are not allowed to be distributed on school premises.

5.3.Attitudes

Respondents said that accessing contraceptives was not difficult (53.9%); this could be attributed to the fact that most of them were aware that contraceptives are free and accessible at a variety of sources, as discussed above. Respondents also disagreed that sex with a condom was not good (57.3%). Based on this result, most respondents thought that it either felt the same or was good. This positive attitude could be seen as a facilitator to condom use. Another possible facilitator to contraceptive use could be observed when respondents said that they did not think that the use of contraceptives shows mistrust in one's partner (50.9%). In fact, a majority said that it increased commitment (37.4%). Furthermore, almost half of respondents said that they did not have difficulty speaking about sex with their friends and partners (46.7%). Paiva *et al.* (2014) found similar results. They found that 57.4% of Brazilian adolescents did not have difficulty speaking about sex with their friends and partners. This open communication may also be seen as a starting point for conversations around contraception and safe sex practices. Furthermore, the present study found that respondents said that it was in fact important to know about methods of contraception before engaging in a sexual relationship (84.3%). Paiva *et al*. (2014) had the same results. They also found that 84.5% of respondents felt that it was important to know about contraceptives before engaging in a sexual relationship.

Negative attitudes were observed around the use of the pill and injection. Respondents said that it affected female health (45.7%) and was fattening (50.5%). However, they did not think that it was more fattening than pregnancy (45.2%). They also said that the use of contraceptives (not specific to the pill and injection) made future pregnancies difficult (43.7%). This attitude may be attributed to attitudes and feelings from their peers or family members as there has been a long-standing misconception that long-term use of contraceptives increases fertility or is directly related to infertility. Pritt *et al*. (2017) found

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that misconceptions about contraceptive side-effects (amongst USA adolescents) may lead to irrational fears that lead to prevention of contraceptive use. Less than half (44.5%) believed that contraceptives were a female problem; however, almost 80% said that it was the responsibility of the couple (76.9%). This difference or seemingly clash attitudes could be attributed to the fact that hormonal contraceptives are taken by the female and other forms of contraceptives such as condoms can be used by a male or female. Alternatively, the high percentage in the latter attitude could be due to the fact that these respondents felt strongly about contraception being a joint endeavour. Taking into consideration that they did not have difficulty talking about sex with their partners, this could mean that they had conversations about contraception as well. (Paiva *et al*., 2014) also found similar results. Almost 90% of respondents in that study said that it was the responsibility of the couple (89.7%), and 35.6% said it was a female problem. Respondents also said that the use of contraceptives increases sexual freedom (53.7%) which was similar to the results found by Paiva et al. (2014) who found that 60.5% agreed that contraceptive use increases sexual freedom.

Respondents said that they want contraceptive knowledge to be taught at school (75.3%) and that it should be available at school (43.5%). Respondents were divided when asked if they learned enough about contraceptives at school; 39.1% said they did and 35.2% said they did not. A high majority of respondents said that falling pregnant would affect their schooling (86.2%); this indicates that they were aware of the negative consequences that pregnancy could have on them in accessing or completing secondary school. This may be seen as a motivator to not fall pregnant or to use contraceptives to prevent possible pregnancy while at school. Respondents were also aware of the consequences of unprotected sex such as possible pregnancy (78.1%) if no contraceptive is used. Thus it comes as no surprise that the majority of respondents said that it was important to first know about methods of contraception before engaging in a sexual relationship (84.3%). This view could be an attempt to prevent a pregnancy that may lead to a break in schooling or termination of schooling. Finally, more than a third of the respondents said that there were no difficulties using contraception. This may be attributed to their knowledge of or access to contraceptives.

5.4. Practices

A quarter of respondents were sexually active (*n*=90), and 8.1% (*n*=30) had been pregnant. Paiva *et al*. (2014) cited that 12.4% of the females in the study (*n*=258) were sexually active. However, in contrast, a study by the Department of Health in the Eastern Cape found that 76% of schoolgirls were sexually active (Jewkes *et al*., 2001). The low incidence of

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pregnancy in the present study could be attributed to the low number of sexually active respondents (24.4%) or the use of contraceptives (9.6%). Most respondents who were sexually active had never been pregnant (66.3%), and 33.7% had been pregnant. This also could be attributed to the fact that there was a significant relationship between sexual activity and the use of contraceptives (p=0.001), indicating that respondents who were sexually active were more likely to use contraceptives.

Fifteen percent of the respondents who were not using contraceptives said that they were thinking about starting to use contraceptives. This could be attributed to the fact that they were sexually active (64.8% of sexually active respondents were not using contraceptives) or that they wanted to start a sexual relationship (respondents said that it was important to know about contraceptives before starting a sexual relationship (r=0.1, p=0.03)). Paiva *et a*l. (2014) found that a total of 49.3% of sexually adolescents (male and female) were not using contraceptives.

The remainder (35.2%) of respondents who were sexually active were mostly using the injection, pill or a combination of the two. These two forms of contraceptives are the most used amongst adolescent females. There are other methods of contraception that they use –the morning-after pill, implant and condoms. This finding is similar to the results in a study in the Eastern Cape which found that the injection and the pill were the two most common forms of contraceptives amongst adolescent schoolgoing girls (Jewkes *et al.*, 2001). *Paiva et al.* (2014), however, found that the hormonal contraceptive was one of the contraceptives used by adolescents (3.3%); they also found that almost 50% of respondents were using condoms (45%). However, this was mostly the male cohort (77.8%).

Respondents who were using contraceptives had been using them for up to 4 years. Frequency of use decreases as the years increase, which could mean that a majority of the respondents had recently started using contraceptives. This could be attributed to their age of sexual debut which was not a variable in this study.

5.4.1. Facilitators and barriers to contraceptive use

Respondents most frequently used contraceptives to prevent pregnancy (17.5%) which is usually the reason for contraceptive use. However, they were also used to prevent sexually transmitted infections (STIs), including HIV (8.9%). It can be assumed that they refer to the barrier method of contraception as hormonal contraceptives do not prevents STIs or HIV. Respondents also said that they used contraceptives to be healthy and have healthy children

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in the future; and some (1.6%) respondents use them on the advice of a doctor, which might be a medically related use.

The respondents also identified other factors contributing to their use or future use. These included hearing about them from friends or family (10.2%); this was the main factor that led to use. Respondents also acknowledged the fact that they were free (9.4%). Taking into consideration that respondents were still at school, this may be a strong motivating factor. They also mentioned its having fewer side-effects (5.1%). As mentioned in the results and previous section on attitudes, adolescents were very concerned about short-term as well as long-term side-effects of contraceptive use. Learning about this from teachers was also seen as a motivating factor for use (3.3%). Lastly, respondents stated that advertisements and their partners' encouragement also contributed to their use (2.2%).

Respondents also reported that there were barriers to their contraceptive use. A majority did not want to use contraceptives due to fear around side-effects (32.9%) this view came through in attitudes, too. In similar studies, Chernick *et al*. (2015) and Hagey *et al*.(2015) found that side-effects of contraception was a barrier to their use. Respondents also said that they wanted to have children (30.7%), which also came through in the study by Chernick *et al*. (2015).This could be related to fear of long-term side effects of contraceptives. As seen in the results section, they did think that contraceptive use caused infertility and their fear of not being able to have children in the future was stopping them from using contraceptives now. Respondents also said they did not want to use contraceptives because they did not have sufficient information about them (29.6%) which indicates that although 97% knew what contraceptives were, they were still not confident in their knowledge. Hagey *et al*. (2015) also cited lack of knowledge as being a barrier to contraceptive use.

Negative attitudes or prohibition from family (11.1%), culture or religion (10.2%) and their partners (3.5%) were also observed to be barriers to use of contraceptives. Similar studies done by Netshikweta (2007) and Vujovic, Struthers, Meyersfeld, Dlamini, & Mabizela (2014) found that culture/religion and negative family attitudes, respectively, were barriers to contraceptive use. Lastly, respondents said that they were using the withdrawal method or pull out method (4.6%) or that their partner could not have children (03%) so they saw no need for contraception. The two last method may reduce the chance of pregnancy but cannot protect against infections that may still occur. And although avoiding pregnancy was the most cited facilitator, they also mentioned that protection against infection was a facilitator to use.

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5.5.Interaction between knowledge, attitudes and practices

There is no statistical relationship between knowledge and practice; this may be because knowledge alone does not cause action or practice. The lack of relationship could also be because the variable only looks at whether or not respondents knew about contraceptives. It fails to evaluate the extent of the knowledge. Furthermore, there are other factors that play a role such as attitudes and facilitators or barriers to practice. Even with knowledge of contraceptives, respondents are more likely to use contraceptives if they are sexually active, as illustrated in the results (p=0.001). Naidoo (2005) argued that knowledge does not translate into practice, stating that economic factors and lack of access to contraceptives may trump knowledge of various contraceptive methods. However, a study in Nepal in 2018 found that increased knowledge leads to increased and effective contractive use (Thapa *et al*., 2018).

There are 6 instances where knowledge and attitudes have a statistical relationship. Knowledge may influence attitudes, depending on where the knowledge originates from and the accompanying attitude that the source has towards the information. Thapa *et al*. (2018) also found that knowledge has a direct influence on attitudes. In fact, the study found that knowledge and attitudes had a significant correlation (p=0.0001). Knowledge was found to lead to positive attitudes about contraception.

A significant relationship was observed between knowledge and the attitude 'It is difficult to get access to contraceptives'. Most participants strongly disagreed or disagreed with this statement (n=194) and almost all of them were knowledgeable about contraception (n=193). This may mean that participants did not find it difficult to access contraceptives as they were knowledgeable about where to obtain them.

Knowledge and the attitude 'I have difficulty talking about contraceptives to my friends/partners' yielded a significant relationship. Most participants strongly disagreed or disagreed with this statement (n=171) and most of them were knowledgeable about contraceptives (n=165), which may indicate that adolescents who have knowledge of contraceptives do not find it difficult to talk about contraceptives with their peers.

There was a statistically significant relationship between knowledge and the attitude 'The pill and injection are fattening'. Most the participants strongly agreed or agreed with this statement (n=182) and most of them were knowledgeable about contraceptives (n=181). This means that participants who knew about contraceptives were of the view that hormonal

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contraceptives were fattening, which could be due to their current use of these methods. Because most respondents using contraceptives were either using the pill, injection or a combination of both as illustrated in the results, they might have developed this attitude based on their knowledge of possible side-effects of hormonal contraceptives on the female body.

The relationship between knowledge and the attitude 'Contraceptives provide more sexual freedom' was found to be significant. Most participants strongly agreed or agreed with this statement (*n*=195) and most of them had knowledge of contraception (*n*=192). This suggests that participants who are knowledgeable about contraceptives are of the view that they provide more sexual freedom, which may be attributed to participants feeling safe to engage sexually as they have knowledge of the protection that contraceptives provide.

A statistically significant relationship was found between knowledge and the attitude 'Contraception should be the responsibility of the couple'. This relationship appears to be stronger than all the others. Most participants strongly agreed or agreed with this statement (*n*=279) and most of them had knowledge of contraception (*n*=275), which shows that participants who know about contraceptives feel that they should be the responsibility of the couple. This may be attributed to their knowledge of dual-method contraception, where both male and female are responsible for contraception as it is not only available for females.

Knowledge and the attitude 'It is important to know the methods of contraception before starting a sexual relationship' yielded a statistically significant relationship. Most participants strongly agreed or agreed with this statement (*n*=151) and most of them had knowledge of contraception (*n*=142), which suggests that participants who know about contraceptives feel that it is important to know about contraceptives before engaging in a sexual relationship.

When determining relationships between practice and attitudes, 4 statistically significant relationships were found. Thapa *et al*. (2018) also found that there was a significant relationship between attitudes and practices (*p*=0.0001), in that attitudes increased practice, and respondents who had positive attitudes toward contraceptive use were more likely to use contraceptives.

A statistically significant relationship was found between practice and the attitude 'It is difficult to get access to contraception'. Most participants strongly disagreed or disagreed with this statement (*n*=188). Of these, 25 were using contraceptives, which accounted for 71% of the participants who were using contraceptives. Therefore most of those using

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contraceptives did not think it was difficult to access them; this may be because they knew where to access them, which is why they did not find it to be difficult.

There was a statistically significant relationship between practice and the attitude 'Contraception is a female problem'. Most participants strongly agreed or agreed with this statement (*n*=156). However, over 50% of participants who were using contraceptives strongly disagreed or disagreed with this statement (54.3%, *n*=19). Thus, a majority of participants who were using contraceptives did not think that it was only a female problem; this could be because the respondents were female and felt that the responsibility should be shared.

Practice and the attitude 'Contraceptives provide more sexual freedom' yielded a statically significant relationship. Most participants who were using contraceptives either strongly agreed or agreed with this statement (*n*=26, which accounts for 74% of participants who were using contraceptives). This means that most participants who were using contraceptives did not think that it provided increased sexual freedom.

Lastly, a statistically significant relationship was found between practice and the attitude 'Contraceptives should be available at schools'. Most participants who were using contraceptives (*n*=27, i.e. 77% of participants who were using) strongly agreed or agreed with this statement, which means that participants who were using contraceptives wanted access to them at school, which may increase their convenience and they would not have to leave school early or stay out of school to collect contraceptives. This final correlation was the strongest of all the correlations between practice and attitude, which could be because respondents felt strongly about increased access to contraceptives.

5.6.Summary of the chapter

This chapter focused on discussing the results presented in the previous chapter. It did this by explaining the results in detail and using literature and theory to make sense of the information. It focused on the respondents' knowledge, attitudes and practices as well as the facilitators and barriers to contraceptive use. It then went a step further to discuss the interaction between variables and the impact that both contraceptive knowledge and attitudes had on contraceptive practices.

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CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6. Summary

This thesis has a total of 6 chapters. The introduction focused on adolescent pregnancy and contraception, including contraceptive knowledge, attitudes and practices amongst female adolescents. A gap was identified in the current research regarding the magnitude and clear description of adolescent pregnancy as well as contraceptive knowledge, attitudes and practices within the targeted community. Thus the research questions were:

1. What is the knowledge, attitudes and contraceptive practices amongst adolescent schoolgoing females in a low-socio-economic community in Cape Town?
2. What are the facilitators and barriers to contraceptive use amongst adolescent schoolgoing females in a low-socio-economic community in Cape Town?

The literature review focused on policies that affect adolescent sexual and reproductive health. The Integrated School Health Policy and the National Adolescent and Youth Policy were identified as focusing on contraceptive education and awareness and the types of contraceptives available to adolescents in South Africa. Sterilisation was found to be not recommended for adolescents. Poverty and the impact of media was found in the literature review to play a big role in the aetiology of adolescent pregnancy. The literature review also looked at knowledge, attitudes and practices relating to adolescent contraceptive use. Studies showed that adolescents were knowledgeable about contraceptives and that they acquired this knowledge through interactions with teachers, peers, family and health professionals. Their attitudes were also found to be influenced by peers and family members. Adolescents shared that their fear of the side-effects of contraceptives influence their use. In the school environment, it was highlighted that there were policies and programmes designed to keep girls in school by providing both education and attempting to change their sexual and contraceptive practices. Adolescents attributed contraceptive non-use to stigma and lack of knowledge of contraceptives. Adolescents also shared that facilitators to their use of contraceptives were their educational goals, efficacy of contraceptives and having knowledge of various contraceptive methods. The KAP conceptual framework was discussed and used in the discussion section.

The research was conducted within 3 schools, with the total sample size being 371. These schools all had approximately 1 200 - 1 500 learners with girls and boys on average being equally divided. Class sizes ranged from 35 - 55 learners. All the schools were government

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schools and fell under the Western Cape Educational Department Metro South. During grades 8 and 9, all learners had to do generic subjects. They could then select their own stream subjects for grades 10 - 12. All grades had to do Life Orientation every year until grade 12. Sexual reproductive health and contraceptives were included in the Life Orientation curriculum. Data were collected via a self-administered questionnaire that was adapted for this specific study. All data were analysed using SPSS 25.0.

6.1.Conclusion

The study found that respondents had knowledge of contraceptives; the extent of this has not been established. The three most common contraceptives they knew were the injection, the pill and condoms. The main source of accessing contraceptives was clinics. The foremost source of contraceptive knowledge was identified as school.

Attitudes towards contraception, contraceptive use and pregnancy were seen as being positive and negative. Respondents did not believe that it was difficult to obtain contraceptives but they were afraid of side-effects of contraceptive use, especially the pill and injection. Respondents also wanted contraceptive knowledge to be taught at school. They were aware that pregnancy was a consequence of unprotected sex, and that pregnancy while at school had possible negative consequences on completing their schooling career.

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A total of 23.8% of respondents were sexually active. Less than half of the respondents who were sexually active were using contraceptives, meaning that most respondents who were sexually active were not using contraceptives; this could explain why 8.1% of the respondents had been pregnant. Of those not using any method of contraception, 15% said that they were planning to start use. The most common method of contraception amongst respondents were the injection and the pill, or a combination of both.

The two main facilitators for contraceptive use were identified as prevention of pregnancy and prevention of STIs and HIV. The three most common factors also contributing to use were identified as being that they heard about them from friends or family, that they were free and that they had few side-effects. The three most common barriers to contraceptive use were fear of side-effects, wanting to have children, and not knowing enough about contraception.

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Finally, in understating the relationship between knowledge, attitudes and practices, chi-square tests were used. The study found that there was no significant relationship between knowledge and practice. However, there were significant relationships between knowledge and attitudes as well as attitudes and practice. The strongest relationship between knowledge and attitude was with the attitude that contraception is the responsibility of the couple. The strongest relationship between practice and attitude was with the attitude that contraceptives should be made available at schools.

6.2. Recommendations

6.2.1. Misconceptions about contraceptives

It is clear from the study that adolescents still have misconceptions about the extent of side-effects that various contraceptives have. These misconceptions can be addressed through awareness campaigns and other forms of health education workshops arranged by either the education department or non-governmental organisations in the community that are dedicated to teenage pregnancy prevention. The reason for outsourcing such forms of workshop is to provide learners with the opportunity to be as free and open about their fears and sexuality as possible which may not always be the case when their teachers are delivering the content. Ideally, peer-to-peer knowledge sharing would work best, but even with an outside facilitator not close in age, discussion can be facilitated amongst learners in a safe space where learners will not feel that their personal thoughts may be used against them.

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6.2.2. Contraceptive information

The Life Orientation curriculum is also vital in delivering this type of information. Although most respondents said they learned about contraceptives at school, almost 20% alarmingly said they did not. The reasons for this are unknown, but perhaps relooking at the tools or media used to deliver these important messages should be done. The adolescents of today want quick, instant bits of information that are easy to digest, which could help to get the message across more clearly. As much as sticking to the curriculum is important, it is also clear that adolescents look for space for open discussions about contraceptive use and especially the side-effects.

Contraceptive knowledge can also be shared to those who are using or want to start using, through initial and ongoing counseling by healthcare professionals. This could prove to have a positive impact on method continuation and accurate and effective use of contraceptives.

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6.2.3. Sources of contraceptives

Furthermore, learners at school should be made aware of the sources of free contraceptives. Although schools may promote abstinence, the study clearly shows that adolescent females are engaging in sexual activity and, to increase the safety of these learners or decrease their changes of falling pregnant, it is important to know where to access contraceptives.

All these recommendations seem to be geared towards knowledge; however, we have seen that knowledge influences attitudes and attitudes influences practice. So it is envisaged that by starting with health education and awareness, a ripple effect can increase the use of contraceptives amongst those who are sexually active, thus decreasing school dropout and increasing the output of learners completing grade 12.

6.2.4. Future research

It is recommended that researchers look at the phenomenon from a qualitative perspective to create more depth to the knowledge base. In this way, the combination of quantitative and qualitative data can be used to develop intervention programmes that are aimed at adolescent girls. These interventions may align with the above recommendations on interventions but should also incorporate the use of social media and social networks because didactic information sharing through Life Orientation alone has not greatly influenced practice.

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Appendix A: Questionnaire English

Knowledge, Attitudes and Practices of Contraception Amongst Adolescent School Going Girls

Questionnaire number:
School:

Instructions:

- The survey has 4 sections
- It will take you approximately 15 minutes to complete
- You are allowed to ask for clarity on questions
- Answer all questions that apply to you, if you are unsure please ask for assistance

Section 1: The following questions will be about your demographics and individual characteristics

1. Race	Black	
	Coloured	
	White	
	Other:	
2. What is your home language	English	
	Afrikaans	
	Other:	
3. How old were you on your last birthday		
4. What grade are you in		
5. How many years of school have you completed up to now *(excluding grade R and current year)*		
6. Relationship status	Single	
	In a non-serious relationship	
	In a serious relationship	
	Engaged	
	Married	
	Divorced	
	Widowed	
7. Religion	Islam	
	Christianity	
	Hindu	
	Other:	

Section 2: The following questions will be about your knowledge

8. Do you know what birth control/family planning is?	Yes	
	No	
9. What type of birth control have you heard of/planning? *(Can choose more than one)*	Intrauterine device	
	Calendar method	
	Lactation amenorrhea method	
	Condoms	
	The pill	
	The injection	
	The morning after pill	

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	Pull out method	
	Sterilization	
	Implant	
	Other:	
10. Where can you get birth control/family planning from? *(Can choose more than one)*	Clinic	
	Hospital	
	Pharmacy	
	Doctor	
	School	
	Other:	
11. Where do you get information about birth control/family planning from? *(Can choose more than one)*	TV	
	Radio	
	Newspapers/Magazines	
	Health workers (nurse, doctor, pharmacist etc.)	
	School	
	Family	
	Friends	
	Other:	
12. Do you learn about birth control/family planning as part of your school subjects?	Yes	
	No	

Section 3: The following questions will be about your attitudes. Fill in corresponding number:

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
5	**4**	**3**	**2**	**1**

13. It is difficult to get access to birth control/family planning	
14. Sex with a condom is not good	
15. Using methods of birth control/family planning shows mistrust in your partner	
16. Using methods of birth control/family planning increases commitment in your relationship	
17. I have difficulty talking about sex with my friends/partners	
18. The pill and injection affects female health	
19. The pill and injection are fattening	
20. After using birth control/family planning it is difficult to become pregnant	
21. Birth control/family planning is a female problem	
22. Birth control/family planning provide more sexual freedom	
23. Pregnancy is more fattening than the use of the pill or injection	
24. Birth control/family planning should be the responsibility of the couple	

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25. Knowledge around birth control/family planning should be taught at school	
26. Birth control/family planning should be available at schools	
27. I gain enough knowledge around birth control/family planning at school	
28. It is important to know the methods of birth control/family planning before starting sexual relationships	
29. There are no difficulties in using birth control/family planning	
30. You can fall pregnant if you do not use birth control/family planning when sexually active	
31. Falling pregnant may affect my school completion	

Section 4: The following questions will be about your practices

32. Are you sexually active?	Yes	
	No	
33. Have you ever used birth control/family planning before? **If no, ignore questions 34-35 If yes, ignore question 36**	Yes	
	No	
34. If yes, what method?		
35. If yes, how long?		
36. If no, are you planning on starting soon?	Yes	
	No	
37. What are your reasons for using birth control/family planning? *(Can choose more than one)* **Ignore if you are not using contraception or not sexually active**	I want to be healthy and have healthy children	
	To prevent pregnancy	
	To prevent sexually transmitted infections (STIs) including HIV	
	A doctor/nurse told me to use it	
	Other:	
38. What factors support your choice the use of birth control/family planning? *(Can choose more than one)* **Ignore if you are not using contraception or not sexually active**	It is free	
	It has less side effects	
	They advertise it	
	My partner wants me to	
	I heard about it from friends or family	
	I heard about it from teachers	
	Other:	
39. What are the reasons you do not want to use birth control/family planning? *(Can choose more than one)*	I want to have children	
	I do not know enough about birth control/family planning	
	I am afraid of the side effects of birth control/family planning	
	It is against my religion/culture	
	My parents/family does not allow me to use birth control/family planning	

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	My partner does not allow me to use birth control/family planning	
	My partner cannot have children	
	I am using the "pull out method"	
	Other:	
40. Have you ever been pregnant?	Yes	
	No	
41. If yes, what age?		
42. Number of pregnancies?		
43. Number of children that are alive?		
44. Number of miscarriages?		

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Appendix B: Vraelys Afrikaans

Kennis, houdings en praktyke oor voorbehoedmiddels in adolessente skoolgaande dogters

Vraelysnommer:
Skool:

Instruksies:

- Die opname bestaan uit 4 afdelings
- Dit sal 15 minute vat om klaar te maak
- U mag om hulp vra as enigiets onduidelik is
- Beantwoord al die vrae wat op u van toepassing is.

Afdeling 1: Die volgende vrae gaan oor u

1. Ras	Swart	
	Kleurling	
	Wit	
	ander:	
2. Wat is u huistaal?	Engels	
	Afrikaans	
	ander:	
3. Hoe oud het u geword op u laaste verjaarsdag?		
4. In watter graad is u?		
5. Hoeveel jaar van skool het jy tot dusver voltooi? (*graad R and jou huidige graad uitgesluit*)		
6. Huwelikstatus	Geen verhouding	
	In 'n nie-ernstige verhouding	
	In 'n ernstige verhouding	
	Verloof	
	Getroud	
	Geskei	
	Weduwee	
7. Geloof	Islam	
	Christenskap	
	Hindoe	
	ander:	

Afdeling 2: Die volgende vrae gaan oor u kennis

8. Weet jy wat voorrbehoedmiddels is?	Ja	
	Nee	
9. Watter tipe voorrbehoedmiddels is u bekend mee? (*Kan meer as een kies*)	Intra-uterine toestel	
	Kalender metode	
	Borsvoedingamenorrhea metode	
	Kondome	
	Die pil	
	Die inspuiting	

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	Noodkontrasepsie	
	Onttrekkingsmetode	
	Sterilisasie	
	Inplanting	
	ander:	
10. Waar kan mens voorbehoedmiddels kry? (*Kan meer as een kies*)	Kliniek	
	Hospitaal	
	Apteek	
	Doktor	
	Skool	
	ander:	
11. Waar kry u inligting oor voorbehoedmiddels? (*Kan meer as een kies*)	TV	
	Radio	
	Koerante / tydskrifte	
	Gesondheidswerkers (verpleegster, dokter, apteker, ens.)	
	Skool	
	Familie	
	Vriende	
	ander:	
12. Is daar skoolvakke wat u leer oor voorbehoedmiddels?	Ja	
	Nee	

Afdeling 3: Die volgende vrae gaan oor u houding. Vul die ooreenstemmende nommer in.

Stem heeltemal saam	Stem saam	Neutraal	Stem nie saam nie	Stem heeltemal saam
5	**4**	**3**	**2**	**1**

13. Dit is moeilik om toegaan tot voorbehoedmiddels te kry	
14. Seskuele ervaring met kondome is anders	

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15. Die gebruik van voorbehoedmiddels kan lei tot vertrouensbreuk in u verhouding	
16. Voorbehoedmiddels verhoog getrouheid aan jou verhouding	
17. Ek vind dit moeilik om oor seks te praat met my vriende	
18. Die pil en inspuiting beïnvloed vroulike gesondheid	
19. Die pil en inspuiting kan lei tot gewigstoename	
20. Nadat u voorbehoedmiddels gebruik het, is dit moeilik om swanger te raak	
21. Die gebruik van voorbehoedmiddels is die vrou se verantwoordlikheid	
22. Voorbehoedmiddels bied meer seksuele vryheid	
23. Swangerskap veroorsaak n groter toename in gewig as die pil of inspuiting	
24. Voorbehoedmiddels is die paartjie se verantwoordelikheid	
25. Kennis oor voorbehoedmiddels moet by die skool geleer word	
26. Voorbehoedmiddels moet by skole beskikbaar wees	
27. Ek kry genoeg inligting rondom voorbehoedmiddels in die skool	
28. Dit is belangrik te weet oor die tipe voorbehoedmiddels voordat ek seksueel verkeer	
29. Daar is geen probleem met die gebruik van voorbehoedmiddels	
30. As jy seksueel aktief is en jy gebruik nie voorbehoedmiddels nie kan jy swanger raak	
31. Jou skoolloopbaan kan afekteek word as jy swanger raak	

Afdeling 4: Die volgende vrae gaan oor u praktyke

32. Is jy seksueel aktief?	Ja	
	Nee	
33. Het u al ooit voorbehoedmiddels gebruik **As jy nee kies, ignoreer vrae 34-35** **As jy ja kies, ignorer vraag 36**	Ja	
	Nee	
34. Indien wel, watter metode?		
35. Indien wel, hoe lank het u dit gebruik?		
36. Indien nee, beplan jy om binnekort te begin?	Ja	
	Nee	
37. Wat is u rede vir die gebruik van voorbehoedmiddels? (*Kan meer as een kies*) Ignoreer as U nie seksueel aktief is nie of U gebruik nie voorbehoedmiddels nie	Ek wil gesond wees en gesonde kinders hê	
	Om swangerskap te voorkom	
	Om seksueel oordraagbare infeksies (SOI's) te voorkom, insluitend MIV	
	'N Dokter / verpleegster het my vertel om dit te gebruik	
	ander:	

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38. Watter faktore ondersteun jou keuse in die gebruik van voorbehoedmiddels (Kan meer as een kies) **Ignoreer as U nie seksueel aktief is nie of U gebruik nie voorbehoedmiddels nie**	Dit is gratis	
	Dit het minder newe-effekte	
	Hulle adverteer dit	
	My venoot wil hê ek moet dit gebruik	
	Ek het daarvan gehoor van vriende of familie	
	Ek het van onderwysers gehoor daarvan	
	ander:	
39. Wat is die redes waarom u nie voorbehoedmiddels wil gebruik nie? (*Kan meer as een kies*)	Ek wil kinders hê	
	Ek weet nie genoeg oor voorbehoedmiddels nie	
	Ek is bang vir die newe-effekte van voorbehoedmiddels	
	Dit is teen my geloof/ kultuur	
	My ouers / familie laat my nie toe om voorbehoedmiddels te gebruik nie	
	My maat laat my nie toe om voorbehoedmiddels te gebruik nie	
	My maat kan nie kinders hê nie	
	Ek gebruik die onttrekkingsmetode	
	ander:	
40. Was jy al ooit swanger?	Ja	
	Nee	
41. Indien wel, watter ouderdom?	Ja	
	Nee	
42. Aantal swangerskappe?		
43. Aantal lewende kinders?		
44. Aantal miskrame?		

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Appendix C: Information sheet in English

INFORMATION SHEET

Project Title: Knowledge, Attitudes and Practices of contraception amongst adolescent girls from selected high schools in a low socio-economic community in Cape Town

What is this study about?
This is a research project being conducted by Lameez Davids at the University of the Western Cape. We are inviting you to participate in this research project because you are currently an adolescent school going girl. The purpose of this research project is to describe the knowledge, attitudes and practices of contraception amongst adolescent school going girls.

What will I be asked to do if I agree to participate?
You will be asked to complete a questionnaire which contains four sections. It will be completed within a classroom with other girls who have agreed to participate. This may impact on your classroom contact time. However, arrangements have been made to complete the questionnaire during the Life Orientation Class to ensure minimal disruptions.

Would my participation in this study be kept confidential?
To ensure your anonymity, *the surveys are anonymous and will not contain information that may personally identify you.*
To ensure your confidentiality, all collected questionnaires will be kept in a locked cabinet. When data is captured on the computer it will be password protected. Only identification codes will be used on questionnaires.

If we write a report or article about this research project, your identity will be protected.

In accordance with legal requirements and/or professional standards, we will disclose to the appropriate individuals and/or authorities information that comes to our attention concerning child abuse or neglect or potential harm to you or others. In this event, we will inform you that we have to break confidentiality to fulfil our legal responsibility to report to the designated authorities.

What are the risks of this research?
All human interactions and talking about self or others carry some amount of risks. We will nevertheless minimise such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of your participation in this study. Where necessary, an appropriate referral will be made to a suitable professional for further assistance or intervention.

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What are the benefits of this research?

This research is not designed to help you personally, but the results may help the investigator learn more about knowledge, attitudes and practices of contraception amongst adolescent school going girls. We hope that, in the future, other people might benefit from this study through improved understanding of knowledge, attitudes and practices of contraception amongst adolescent school going girls.

The research is anticipated to provide a picture of the current contraceptive practices that could be used to guide services and plan interventions to decrease adolescent pregnancy rates and other consequences associated therewith.

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

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

What if I have questions?

This research is being conducted by ***Lameez Davids from the School of Public Health*** at the University of the Western Cape. If you have any questions about the research study itself, please contact Lameez Davids at:

0219594009

lameezdavids00@gmail.com

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

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This research has been approved by the University of the Western Cape's Research Ethics Committee. (REFERENCE NUMBER: BM 19/8/21)

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Appendix D: Information Sheet in Afrikaans

INLIGTINGSBLAD

Projek Titel: Kennis, houdings en praktyke van voorbehoeding onder adolessente meisies van geselekteerde hoërskole in 'n lae sosio-ekonomiese gemeenskap in Kaapstad

Waaroor gaan hierdie studie?
Hierdie is 'n navorsingsprojek word deur Lameez Davids aan die Universiteit van Wes-Kaapland uitgevoer word. Ons nooi u uit om deel te neem aan hierdie navorsingsprojek, aangesien u tans 'n adolessent skoolmeisie is. Die doel van hierdie navorsingsprojek is om die kennis, houdings en praktyke van voorbehoeding onder adolessente skoolgaande meisies te beskryf.

Wat sal ek gevra word om te doen as ek meedoen om deel te neem?
U sal gevra word om 'n opname te voltooi wat vier afdelings bevat. Dit sal binne 'n klaskamer voltooi word met ander meisies wat ingestem het om deel te neem. Dit kan 'n impak hê op u klaskamer kontak tyd. Daar is egter reëlings getref om die vraelys tydens die Lewensoriënteringsklas te voltooi om minimale ontwrigting te verseker.

Sal my deelname aan hierdie studie vertroulik gehou word?
Om u anonimiteit te verseker, is die opnames anoniem en bevat geen inligting wat u persoonlik kan identifiseer nie.
Om u vertroulikheid te verseker sal alle ingevulde vraelyste in 'n geslote kas gehou word. Wanneer data op die rekenaar vasgelê word, sal dit wagwoord beskerm word. Slegs identifikasiekodes sal op vraelyste gebruik word.

As ons 'n verslag of artikel oor hierdie navorsingsprojek skryf, sal u identiteit beskerm word.

In ooreenstemming met wetlike vereistes en / of professionele standaarde, sal ons aan die toepaslike individue en / of owerhede inligting bekend maak wat onder ons aandag kom oor kindermishandeling of verwaarlosing of potensiële skade aan u of ander. In hierdie geval sal ons u inlig dat ons vertroulikheid moet breek om ons wettige verantwoordelikheid te vervul om aan die aangewese owerhede verslag te doen.

Wat is die risiko's van hierdie navorsing?
Alle menslike interaksies en praat oor self of ander dra 'n mate van risiko's. Ons sal egter sulke risiko's verminder en dadelik optree om u te help as u enige ongemak, sielkundige of andersins ervaar tydens die proses van u deelname aan hierdie studie. Waar nodig, sal 'n gepaste verwysing na 'n geskikte professionele vir verdere bystand of ingryping gedoen word.

Wat is die voordele van hierdie navorsing?
Hierdie navorsing is nie ontwerp om u persoonlik te help nie, maar die resultate kan die ondersoeker help om meer te leer oor kennis, houdings en praktyke van voorbehoeding onder

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adolessente skoolgaande meisies. Ons hoop dat ander mense in die toekoms dalk voordeel kan trek uit hierdie studie deur beter begrip van kennis, houdings en praktyke van voorbehoedmiddels onder adolessente skoolgaande meisies.
Die navorsing word verwag om 'n prentjie te gee van die huidige voorbehoedpraktyke wat gebruik kan word om dienste te lei en intervensies te beplan om adolessente swangerskapskoerse en ander gevolge daaraan te verminder.

Moet ek in hierdie navorsing wees en mag ek op enige stadium ophou deelneem?
U deelname aan hierdie navorsing is heeltemal vrywillig. U mag kies om glad nie deel te neem nie. As u besluit om aan hierdie navorsing deel te neem, kan u enige tyd ophou deelneem. As u besluit om nie aan hierdie studie deel te neem nie, of as u op enige stadium ophou deelneem, sal u nie enige voordele wat u andersins kwalifiseer, gepenaliseer of verloor word nie.

Wat as ek vrae het?
Hierdie navorsing word uitgevoer deur ***Lameez Davids*** van die ***Skool vir Openbare Gesondheid*** aan die Universiteit van Wes-Kaapland. As jy vrae het oor die navorsingstudie self, kontak asseblief Lameez Davids by:
0219594009
lameezdavids00@gmail.com
Indien u enige vrae rakende hierdie studie en u regte as 'n navorsingsdeelnemer het of as u enige probleme rakende die studie aangemeld het, kontak asseblief:

Prof Uta Lehman
Skool vir Openbare Gesondheid
Hoof van die departement
Universiteit van die Wes-Kaap
Privaatsak X17
Bellville 7535
soph-comm@uwc.ac.za

Prof Anthea Rhoda
Dekaan van die Fakulteit Gemeenskaps- en Gesondheidswetenskappe
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E-mail: soph-comm@uwc.ac.za/ research-ethics@uwc.ac.za

Hierdie navorsing is deur die Universiteit van Wes-Kaap se Navorsingsetiekkomitee goedgekeur. (VERWYSINGSNOMMER: BM 19/8/21)

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Appendix E: Parental Information Sheet in English

PARENTAL INFORMATION SHEET

Project Title: Knowledge, Attitudes and Practices of contraception amongst adolescent girls from selected high schools in a low socio-economic community in Cape Town

What is this study about?
This is a research project being conducted by Lameez Davids at the University of the Western Cape. We are inviting your child to participate in this research project because she is currently an adolescent school going girl. The purpose of this research project is to describe the knowledge, attitudes and practices of contraception amongst adolescent school going girls.

What will your child be asked to do if you both agree that she can participate?
She will be asked to complete a questionnaire which contains four sections. It will be completed within a classroom with other girls who have agreed to participate. This may impact on classroom contact time. However, arrangements have been made to complete the questionnaire during the Life Orientation Class to ensure minimal disruptions.

Would my child's participation in this study be kept confidential?
To ensure your anonymity, *the surveys are anonymous and will not contain information that may personally identify you* ***or your child.***
To ensure your confidentiality, all collected questionnaires will be kept in a locked cabinet. When data is captured on the computer it will be password protected. Only identification codes will be used on questionnaires.

If we write a report or article about this research project, you and your child's identity will be protected.

n accordance with legal requirements and/or professional standards, we will disclose to the appropriate individuals and/or authorities information that comes to our attention concerning child abuse or neglect or potential harm to your child or others. In this event, we will inform you that we have to break confidentiality to fulfil our legal responsibility to report to the designated authorities.

What are the risks of this research?
All human interactions and talking about self or others carry some amount of risks. We will nevertheless minimise such risks and act promptly to assist your child if she experiences any discomfort, psychological or otherwise during the process of your participation in this study.

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Where necessary, an appropriate referral will be made to a suitable professional for further assistance or intervention.

What are the benefits of this research?
This research is not designed to help you personally, but the results may help the investigator learn more about knowledge, attitudes and practices of contraception amongst adolescent school going girls. We hope that, in the future, other people might benefit from this study through improved understanding of knowledge, attitudes and practices of contraception amongst adolescent school going girls.
The research is anticipated to provide a picture of the current contraceptive practices that could be used to guide services and plan interventions to decrease adolescent pregnancy rates and other consequences associated therewith.

Does your child have to be in this research and may she stop participating at any time?
to allow your child to participate in this research is completely voluntary. You may choose not to consent for her to take part at all. If you decide to allow her to participate in this research, she may stop participating at any time. If you decide not to allow her to participate in this study or if she stops participating at any time, you or your child will not be penalized or lose any benefits to which you otherwise qualify.

What if I have questions?
This research is being conducted by ***Lameez Davids from the School of Public Health*** at the University of the Western Cape. If you have any questions about the research study itself, please contact Lameez Davids at:
00219594009
lameezdavids00@gmail.com
Should you have any questions regarding this study and your child's rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Prof Uta Lehman
School of Public Health
Head of Department
University of the Western Cape
Private Bag X17
Bellville 7535
soph-comm@uwc.ac.za

Prof Anthea Rhoda
Dean of the Faculty of Community and Health Sciences
University of the Western Cape
Private Bag X17

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BIOMEDICAL RESEARCH ETHICS ADMINISTRATION

Research Office

University of the Western Cape

Private Bag X17

Bellville 7535

Tel: +27 21 959 2988

Email: research-ethics@uwc.ac.za

This research has been approved by the University of the Western Cape's Research Ethics Committee. (REFERENCE NUMBER: BM 19/8/21)

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Appendix F: Parental Information Sheet in Afrikaans

OUER INLIGTINGSBLAD

Projek Titel: Kennis, houdings en praktyke van voorbehoeding onder adolessente meisies van geselekteerde hoërskole in 'n lae sosio-ekonomiese gemeenskap in Kaapstad

Waaroor gaan hierdie studie?
Hierdie is 'n navorsingsprojek wat deur Lameez Davids aan die Universiteit van Wes-Kaapland uitgevoer word. Ons nooi jou kind uit om deel te neem aan hierdie navorsingsprojek omdat sy tans 'n adolessent skoolmeisie is. Die doel van hierdie navorsingsprojek is om die kennis, houdings en praktyke van voorbehoeding onder adolessente skoolgaande meisies te beskryf.

Wat sal jou kind gevra word om te doen as ons albei saamstem dat sy kan deelneem?
Sy sal gevra word om 'n vraelys te voltooi wat vier afdelings bevat. Dit sal binne 'n klaskamer voltooi word met ander meisies wat ingestem het om deel te neem. Dit kan 'n impak hê op klaskamer kontaktyd. Daar is egter reëlings getref om die vraelys te voltooi tydens die Lewensoriënteringsklas om minimale ontwrigting te verseker.

Sal my kind se deelname aan hierdie studie vertroulik gehou word?
Om u anonimiteit te verseker, is die opnames anoniem en bevat geen inligting wat u of u kind persoonlik kan identifiseer nie.
Om u vertroulikheid te verseker sal alle ingevulde vraelyste in 'n geslote kas gehou word. Wanneer data op die rekenaar vasgelê word, sal dit wagwoord beskerm word. Slegs identifikasiekodes sal op vraelyste gebruik word.

As ons 'n verslag of artikel oor hierdie navorsingsprojek skryf, sal u en u kind se identiteit beskerm word.

In ooreenstemming met wetlike vereistes en / of professionele standaarde, sal ons aan die toepaslike individue en / of owerhede inligting bekend maak wat onder ons aandag kom oor kindermishandeling of verwaarlosing of moontlike skade aan u kind of ander. In hierdie geval sal ons u inlig dat ons vertroulikheid moet breek om ons wettige verantwoordelikheid te vervul om aan die aangewese owerhede verslag te doen.

Wat is die risiko's van hierdie navorsing?
Alle menslike interaksies en praat oor self of ander dra 'n mate van risiko's. Ons sal egter sulke risiko's verminder en dadelik optree om u kind te help as u enige ongemak, sielkundige

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of andersins ervaar tydens die proses van u deelname aan hierdie studie. Waar nodig, sal 'n gepaste verwysing na 'n geskikte professionele vir verdere hulp of ingryping gedoen word.

Wat is die voordele van hierdie navorsing?
Hierdie navorsing is nie ontwerp om julle persoonlik te help nie, maar die resultate kan die ondersoeker help om meer te leer oor kennis, houdings en praktyke van voorbehoeding onder adolessente skoolgaande meisies. Ons hoop dat ander mense in die toekoms dalk voordeel kan trek uit hierdie studie deur beter begrip van kennis, houdings en praktyke van voorbehoeding onder adolessente skoolgaande meisies.
Die navorsing word verwag om 'n prentjie te gee van die huidige voorbehoedpraktyke wat gebruik kan word om dienste te lei en intervensies te beplan om adolessente swangerskapskoerse en ander gevolge daaraan te verminder.

Moet u kind in hierdie navorsing wees en mag sy ophou om enige tyd deel te neem?
Om jou kind in staat te stel om aan hierdie navorsing deel te neem, is heeltemal vrywillig. U mag kies om nie vir haar toestemming te gee om deel te neem nie. As u besluit om haar toe te laat om aan hierdie navorsing deel te neem, kan sy op enige stadium ophou deelneem. As u besluit om haar nie toe te laat om aan hierdie studie deel te neem nie, of as sy op enige stadium aanhou deelneem, sal u of u kind nie gepenaliseer word of enige voordele wat u andersins kwalifiseer, verloor nie.

Wat as ek vrae het?
Hierdie navorsing word deur **Lameez Davids** van die **Skool vir Openbare Gesondheid** aan die **Universiteit van Wes-Kaapland** uitgevoer. As jy vrae het oor die navorsingstudie self, kontak asseblief Lameez Davids by:
0219594009
lameezdavids00@gmail.com
Indien u enige vrae rakende hierdie studie en u kind se regte as 'n navorsingsdeelnemer het of as u enige probleme rakende die studie aangemeld wil hê, kontak asseblief:

Prof Uta Lehman
Skool vir Openbare Gesondheid
Hoof van die departement
Universiteit van die Wes-Kaap
Privaatsak X17
Bellville 7535
soph-comm@uwc.ac.za

Prof Anthea Rhoda
Dekaan van die Fakulteit Gemeenskaps- en Gesondheidswetenskappe
Universiteit van die Wes-Kaap
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Navorsingskantoor

Universiteit van die Wes-Kaap

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Bellville 7535

Tel: +27 21 959 2988

E-pos: research-ethics@uwc.ac.za

Hierdie studie is deur die Universiteit van Wes-Kaap se Navorsingsetiekkomitee goedgekeur. (VERWYSINGSNOMMER: BM 19/8/21)

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Appendix G: Parental consent in English

PARENTAL CONSENT FORM

Title of Research Project: Knowledge, Attitudes and Practices of contraception amongst adolescent girls from selected high schools in a low socio-economic community in Cape Town

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my child's participation will involve and I agree to allow her to participate of my own choice and free will. I understand that my or my child's identity will not be disclosed to anyone. I understand that I may withdraw my child from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

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Participants name……..

Parents signature……..

Date……

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Appendix H: Parental consent in Afrikaans

OUERVERGUNNINGSVORM

Titel van Navorsingsprojek: Kennis, houdings en praktyke van voorbehoeding onder adolessente meisies van geselekteerde hoërskole in 'n lae sosio-ekonomiese gemeenskap in Kaapstad

Die studie is aan my beskryf in taal wat ek verstaan. My vrae oor die studie is beantwoord. Ek verstaan wat my kind se deelname sal betrek en ek stem in om haar toe te laat om aan eie keuse en vrye wil deel te neem. Ek verstaan dat my of my kind se identiteit nie aan enigiemand bekend gemaak sal word nie. Ek verstaan dat ek my kind enige tyd van die studie kan onttrek sonder om 'n rede en sonder vrees vir negatiewe gevolge of verlies aan voordele te gee.

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Deelnemer se naam .....

Ouer se handtekening .....

Datum .....

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Appendix I: Participant Assent From in English

ASSENT FORM

Title of Research Project: Knowledge, Attitudes and Practices of contraception amongst adolescent girls from selected high schools in a low socio-economic community in Cape Town

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

Participant's name……..

Participant's signature……

Date……

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Appendix J: Participant assent form in Afrikaans

ASSESSERENDE VORM

Titel van Navorsingsprojek: Kennis, houdings en praktyke van voorbehoeding onder adolessente meisies van geselekteerde hoërskole in 'n lae sosio-ekonomiese gemeenskap in Kaapstad

Die studie is aan my beskryf in taal wat ek verstaan. My vrae oor die studie is beantwoord. Ek verstaan wat my deelname sal behels en ek stem in om deel te neem van my eie keuse en vrye wil. Ek verstaan dat my identiteit nie aan enigiemand bekend gemaak sal word nie. Ek verstaan dat ek enige tyd van die studie kan onttrek sonder om 'n rede en sonder vrees vir negatiewe gevolge of verlies aan voordele te gee.

Deelnemer se naam .....

Deelnemer se handtekening .....

Datum .....

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Appendix K: Participant consent form in English

CONSENT FORM

Title of Research Project: Knowledge, Attitudes and Practices of contraception amongst adolescent girls from selected high schools in a low socio-economic community in Cape Town

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

Participant's name……..

Participant's signature……

Date……

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Appendix L: Participant consent form in Afrikaans

VRYWARINGS VORM

Titel van Navorsingsprojek: Kennis, houdings en praktyke van voorbehoeding onder adolessente meisies van geselekteerde hoërskole in 'n lae sosio-ekonomiese gemeenskap in Kaapstad

Die studie is aan my beskryf in taal wat ek verstaan. My vrae oor die studie is beantwoord. Ek verstaan wat my deelname sal behels en ek stem in om deel te neem van my eie keuse en vrye wil. Ek verstaan dat my identiteit nie aan enigiemand bekend gemaak sal word nie. Ek verstaan dat ek enige tyd van die studie kan onttrek sonder om 'n rede en sonder vrees vir negatiewe gevolge of verlies aan voordele te gee.

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Deelnemer se naam .....

Deelnemer se handtekening .....

Datum .....

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Appendix M: WCED ethics application

Directorate: Research
Audrey.wyngaard@westerncape.gov.za
Tel: +27 021 467 9272
Fax: 0865902282
Private Bag x9114, Cape Town, 8000
wced.wcape.gov.za

APPLICATION TO CONDUCT RESEARCH IN PUBLIC SCHOOLS WITHIN THE WESTERN CAPE

Note

- This application has been designed with students in mind.
- If a question does not apply to you indicate with a N/A
- The information is stored in our database to keep track of all studies that have been conducted on the WCED. It is therefore important to provide as much information as is possible

1 APPLICANT INFORMATION

1.1. Personal Information	
1.1.1 Title (Prof / Dr / Mr/ Mrs/Ms)	**Ms**
1.1.2 Surname	**Davids**
1.1.3 Name (s)	**Lameez**
1.1.4 Student Number (If	**3048180**

1.2 Contact information	
1.2.1 Postal Address	**84 Bertha Crescent Montrose Park, Mitchells Plain**
1.2.2 Telephone number	**0219594009**
1.2.3 Cell number	**0820689888**
1.2.4 Fax number	**None**
1.2.5 E-mail Address	**ladavids@uwc.ac.za**
1.2.6 Year of registration	**2017**
1.2.7 Year of completion	**2019**

2 DETAILS OF THE STUDY

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2.1 Details of degree and project	
2.1.1 Name of the institution	**The University of the Western Cape**
2.1.2 Degree / Qualification registered for	**Masters in Public Health**
2.1.3 Faculty and Discipline / Area of study	**Public Health**
2.1.4 Name of Supervisor / Promoter / Project leader	**Prof. Firdouza Waggie**
2.1.5 Telephone number of Supervisor / Promoter	**0219593627**
2.1.6 E-mail address of Supervisor	**fwaggie@uwc.ac.za**
2.1.7 Title of the study	**Knowledge, Attitudes and Practices of contraception amongst adolescent girls from selected high schools in a low socio-economic community in Cape Town**
2.1.8 What is the research question, aim and objectives of the study	**Aim** **To describe the knowledge, attitudes and practices associated with contraception as well as the facilitators and barriers that influence contraceptive use amongst adolescent females in selected public secondary schools in low socio-economic community in Cape Town.** **Objectives** **1. To describe female adolescents' knowledge of contraception.** **2. To describe female adolescents' attitudes towards contraception use.** **3. To describe female adolescents' contraceptive practices.**

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	4. To identify facilitators and barriers that influence contraceptive use amongst adolescent females.
2.1.9 Name (s) of education institutions (schools)	**Only known by researchers directly involved in study as well as Dr. Wyngaard to ensure confidentiality of respondents**
2.1.10 Research period in education institutions (Schools)	
2.1.11 Start date	**April 2019**
2.1.12 End date	**July 2019**

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Appendix N: Permission letter for school principals

Dear Sir/Madam

You are cordially invited to take part in a research project initiated by Ms. Lameez Davids, a Masters student at the School of Public Health, University of the Western Cape under the supervision of Prof. Firdouza Waggie.

The research project aims at to determine knowledge, attitudes and practices and the facilitators and barriers that influence contraceptive use amongst adolescent females in selected public secondary schools in Mitchells Plain, Western Cape. We aim to improve the understanding regarding the use of contraceptives amongst these adolescents. This study has been approved by the Biomedical Research Ethics Committee at the University of the Western Cape and the Western Cape Education Department. This research will be conducted according to strict ethical guidelines and principles.

Your school has been randomly picked to take part in this research project. It will involve a random selection of school girls aged 12 to 19 years old in your school whose parents/guardians give consent to their participation. They will take part voluntarily and anonymously by filling out a questionnaire (please see attached).

The results of the analysed data will be published in various forms of literature such as the mini-thesis as well as articles. This disseminated information will also be made available to the Metro South Education Department and participating schools.

Your favourable consideration for participation in this project will be greatly appreciated. Any queries regarding this matter will be answered to the best of our abilities.

Yours Sincerely

Ms. Lameez Davids

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Appendix O: Letter from editor

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6 November 2019

Mrs Lameez Davids-Edries
Interprofessional Education Unit
Faculty of Community and Health Sciences
University of the Western Cape
Private Bag X 17
Bellville

Dear Mrs Davids-Edries

re: Thesis entitled Knowledge, attitudes and practices of contraception amongst adolescent girls from selected high schools in a low-socio-economic community in Cape Town

I declare that I have read and edited the above thesis from the standpoint of grammar, syntax, idiom and punctuation according to the norms of English in the style followed in South Africa, and the style and format generally used for academic and scientific publications.

I have worked for many years, and continue to work post retirement, as a copy editor for a number of professional South African academic and health sciences journals, including those published by the Health & Medical Publishing Group, which is the publishing subsidiary of the South African Medical Association.

Yours sincerely

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