

**EXPLORING THE UPTAKE OF IMPLANT CONTRACEPTIVES AMONG SOUTH
AFRICAN YOUNG WOMEN: A PREDICTION FOR HEALTH COMMUNICATION
CAMPAIGNS**

by

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DECLARATION

I, Martha Morongwa Manthata do hereby declare that this research submitted to the Faculty of Humanities in the University of Limpopo, is a product of my original work in design and execution. All sources that have been used in this study have been quoted and acknowledged by means of complete references. This work has never been submitted to any institution for any degree and data were collected by the researcher bearing in mind all ethical considerations.

Manthata M.M

Date

DEDICATION

This study is dedicated to the following people:

My mother, Flora Mosatiwa Manthata, whom despite having not undergone formal schooling, can be counted among the very bright and intelligent people in my community. Through your commitment, diligence and endurance, you have really shown me that there is nothing impossible on earth. Your love, support and prayers kept me motivated. You were always there for me when times were hard and you encouraged me never to give up. You are a special gift from God.

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To my father and my entire family, your love and support has kept me going throughout this study.

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ABSTRACT

Globally, over the years, health promotion organisations have developed communication campaigns geared towards addressing most major public health issues with the intention of preventing risky sexual behaviour. Teenage pregnancy is a major health, social, systemic and economic challenge, not only for the basic education sector but also, crucially for national development in general. The use of modern contraceptives, specifically implant contraceptives, has the potential to alleviate unintended teenage pregnancies. Modern contraceptives such as implant contraceptives have proven to be highly effective from 24 hours after insertion up to three years. Theoretically, the Health Belief Model and the Theory of Planned Behaviour have been applied to guide the study. A quantitative, descriptive survey was used in this study, with data collected using questionnaires. Purposive sampling of six secondary schools under the Mankweng Circuit in the Limpopo province where 306 participants were randomly selected was employed. Data were analysed using the SPSS version 26. The study revealed that that 34% of the participants were willing to use the implant contraceptive method based on the benefits found to be associated with the method. However, 66% were not willing to use the method regardless of the benefits found in using the implant contraceptives. In addition, it was found that only 3.9% of the participants were using implant contraceptives as a tool to prevent unintended pregnancies. This study makes a contribution to existing literature on implant contraceptives uptake among young women in South Africa. It would be informative to organisations and the National Department of Health who propose the use of implant contraceptives to stem increasing teenage pregnancies.

ACRONYMS AND ABBREVIATIONS

ANOVA - Analysis of Variance

EC - Emergency Contraceptives

NDoH - National Department of Health

HBM - Health Belief Model

HCCC - Health Communication Capacity Collaborative

IUD's - Intrauterine Devices

LARC's - Long Acting Reversible Contraceptives

TPB - Theory of Planned Behaviour

UK - United Kingdom

UNAIDS - United Nations Program on HIV/AIDS

USA - United States of America

WHO - World Health Organisation

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CHAPTER ONE

INTRODUCTION AND BACKGROUND

1. 1 INTRODUCTION

For several decades, health promotion organisations have developed communication campaigns geared towards addressing major public health issues. The intention of such campaigns is to achieve a large range of behavioural outcomes, such as initiating but also maintaining preventive health behaviour or the ensuring the cessation of risky sexual behaviour. Tomaselli and Chasi (2011:93) state that these campaigns have relied mainly on mass communication to disseminate information and to create awareness among targeted audiences. Print media mainly posters, pamphlets and electronic media such as radio, television and internet have been used to disseminate health related messages to the public by organisations and governments.

If planned and implemented effectively, health communication campaigns are effective in creating awareness and promoting the use of contraceptives in general among young women. In the past, two methods; hormonal oral contraceptives and progestogen-only injectable contraceptives have dominated contraceptive use in South Africa. However, currently there is a move towards an expanded method mix which includes the promotion of modern existing methods, while addressing underutilised methods, such as the IUD and implant contraceptives (Patel, 2014:644). Globally, WHO (2018) mentions that modern contraceptive use has minimally increased from 54% in 1990 to 57.4% in 2015. In Africa, usage of modern contraceptives reportedly moved from from 23.6% to 28.5%, Asia experienced a rise from 60.9% to 61.8%, while the Caribbean and Latin America, it have plateaued at 66.7%.

The genesis of the implant contraceptives revolutionised family planning among women. Implant contraceptives have introduced benefits that traditional contraceptives do not offer. Hubacher, Olawo, Manduku, Kiarie and Chen (2011:417) contend that women no longer have to visit clinics regularly; there is no need to take a pill every day or to stand in a long queue at the clinic every two to three months. Implant contraceptives are long lasting products that offer a variety of benefits to every

woman regardless of their age. They are the most effective over other forms of reversible contraception. By definition, the implant contraceptive is a “small matchstick-sized plastic rod that is inserted via a needle under the skin on the inside of the upper arm” (Myeza, 2014:1).

The Health Communication Capacity Collaborative (HCCC) (2015:8) state that there are various family planning methods that the South African government has implemented in order to alleviate the teenage pregnancy problem. These methods include short-term contraceptives such as pills, injections, condoms, and Long Acting Reversible Contraceptives (LARCs) such as implant contraceptives. According to the HCCC (2015), statistics prove that the use of implant contraceptives is minimal among women aged 15-49 years while short-term methods in Africa and Asia are more commonly used.

In 2014, Minister of Health in South Africa, Dr Aaron Motsoaledi introduced implant contraceptives to the country during the State of the Nation address. The Minister said that every South African woman countrywide could access the implant form of contraceptive free. While this type of contraception is meant to address the problem of unwanted pregnancies among women in general, if accessed and effectively used it has the potential to address the growing problem of teenage pregnancy. The Minister highlighted that statistically, 8% of roughly one million women fall pregnant every year. He indicated that the most disturbing part of this challenge is that the majority of girls who fell pregnant were aged less than 18 years. Most of these pregnancies were unplanned and could lead to abortion (Media Club, 2014:1). The move has not been without challenges, since March 2018, all provinces in South Africa have experienced a shortage of oral contraceptives at state facilities and as a result of this challenge women have been urged to consider LARC's and other alternative contraceptives (Cape Times, 2018:1). Campaigns have been instituted to remind women about other available forms of contraceptives that they can use. With the shortage of oral contraception saga, a total of 27 learners at Molautsi Secondary School in Blood River near Polokwane in Limpopo Province fell pregnant (SABC news report, 2018:1). Although this incident cannot be solely attributable to access or lack thereof to contraceptives, it may have partly been an outcome of lack of knowledge based on limited health communication campaigns.

Statistics South Africa (2015:7) states that 68 000 teenagers fell pregnant in 2011, and this figure escalated to 81 000 in 2012. The teenage pregnancy rate increased to 99 000 in the year 2013. To curb the high rate of teenage pregnancy, the South African government introduced sex education and contraceptives in schools. Although Statistics South Africa (2015:8) indicates that safe sex messages may be getting across to teens, and that there is a decrease, albeit slight in teen pregnancy, the figures are still high. For example, in the Western Cape Province in 2017, 2, 148 school pupils got pregnant, an improvement from 2015, where 2 880 instances were recorded, which decreased to 2 412 in 2016 (Petersen, 2018). The Department of Basic Education Annual School Survey data (2017) indicates an estimation of 15 504 pregnant learners within schools; Gauteng province with the highest pregnancy rate at (5 246); Western Cape (2 891); Mpumalanga (2 770); KwaZulu Natal (2 408); and Northern Cape (69) as the lowest among all provinces.

Statistics South Africa has maintained that the initiative behind this drop is attributable to loveLife campaigns across the country. However, the drop in the rate of teenage pregnancy may not be fully attributable to health campaigns alone as Statistics South Africa (2015:8) states that other factors also play a part. Even if campaigns were responsible for the drop in rates, the decrease was only 0.1% (Statistics South Africa, 2015:8). This means that more campaigns or other ways of persuasion need to be formulated to lessen the teenage pregnancy problem.

Regardless of the different initiatives such as loveLife campaigns that are implemented to alleviate teenage pregnancy, this behaviour remains a huge problem in society. Statistically, 209,809 babies born to young women aged between 15-19 years, accounted for 5.3 percent of birth rate in 2016 (Office of Adolescent Health, 2016:1). If health communication campaigns about implant contraceptives were to be effectively developed, this would have the potential to create awareness, improve the level of knowledge among teenagers, resulting in behavioural change and possible decrease in teenage pregnancy.

In attempt to curb unwanted pregnancies among young women, the National Department of Health has launched the *Phila* initiative aimed at improving healthy lifestyle by bringing health services such as the provision of contraceptives to young women and providing information about other health threatening issues. This initiative

further provides information on the “She conquers” campaign that aims to improve young women’s lives by informing them on how to avoid unwanted pregnancies (Mkhize, 2017:1). Through such campaigns, the goal of decreasing teenage pregnancy among young South African women might be achieved.

Communication campaigns are useful in disseminating messages to large numbers of people within a short time. Barry, Fox, Sixsmith and Doyle (2014:3) argue that campaigns can only be successful if they are guided by principles and theories of effective health communication. The Health Belief Model has been successfully used in predicting effective communication of health messages that lead to the required behavioural change. This study intends to predict whether young South African women are willing to use implant contraceptives to alleviate teenage pregnancy if they are exposed to health campaign messages.

1.2 RESEARCH PROBLEM

Teenage pregnancy is a worldwide problem that has a higher possibility to occur in marginalised communities, commonly driven by poverty, illiteracy and employment status (World Health Organisation, 2018). The rate of teenage pregnancy in South Africa appears to have increasingly become a major health, social, systemic and economic challenge that does not only affect the basic education department sector but the entire country (Times live, 2018). Modern contraceptive use may help teenagers to avoid multiple consequences linked to early pregnancy (Essiben, Meka, Foumane, Mpacko, Ojong & Telesphore, 2018:1). South Africa as the focus of this study has experienced a decline in the use of modern contraceptives among married or women in relationships. These findings indicate that South Africa moved from 59.8% to 54% in 2016, a possible indicator of use in general. This study attempts to find out whether young South African women would be willing to use implant contraceptives as a tool to alleviate teenage pregnancy.

1.3 LITERATURE REVIEW

Literature review of this study is presented under the umbrella of health communication campaigns, young women and contraceptive use. Chapter 2 is based on health communication campaigns whereas Chapter 3 deliberates on literature based on young women and contraceptives.

1.3.1 Health communication campaigns

The section begins with an overview and conceptualises health communication campaigns. The use of health communication as a tool that disseminates health messages in order to inform, persuade and create awareness among the intended audience is discussed in chapter 2 of this study. The chapter further offers an insight into contexts of communication such as the mass media and interpersonal communication environment used to disseminate health communication messages to effect behavioural change among the intended audiences.

Furthermore, a detailed discussion on the effectiveness of health communication campaigns as channels geared towards influencing behavioural change among young women is provided. Lastly, the concept of health literacy as a tool that empowers young women to make informed decisions based on how they receive and interpret health messages about contraceptives is also considered.

1.3.2 Young women and contraceptives

Chapter 3 of this study provides literature based on young women and contraceptives. The literature is reviewed on contraceptive uptake among young women. The Chapter focuses on various factors that have been assumed to encourage the use of contraceptives among young women. It further delivers a discussion based on access to contraceptive information. Young women's knowledge and awareness of contraceptives will form part of literature review as well. In addition, a deliberation of contraceptive use as a choice made by individuals is conveyed in Chapter 3 of the study.

Accessibility and affordability of contraceptives in South Africa will form part of the discussion in the literature review section. Categories of contraceptives such the traditional and modern forms of contraceptives will be deliberated in Chapter 3. Literature will be reviewed on implant contraceptive uptake as the main focus of the study. In addition, the benefits and barriers of using implant contraceptives will also be provided in the Chapter.

1.4 THEORETICAL FRAMEWORK

The theoretical framework of this study is founded on the Health Belief Model (HBM) and the Theory of Planned Behaviour (TPB). The HBM stresses that an individual's

behaviour can be predicted (Corcoran, 2007) underpinned on how vulnerable the individual may consider themselves to be. On the other hand, the TPB suggests that an individual's behaviour is strong-minded by his/her intention to perform the behaviour and that this intention is, in turn, based on an individual's attitude concerning the behaviour and their subjective norm (Health Communication, 2017). These two theories are relevant to this study because it intends to explore the influential factors to young women's intentions to use implant contraceptives.

1.4.1 The Health Belief Model

The HBM is an all-inclusive social cognitive framework propounded in the 1950s by Hochbaum, Rosenstock and Kegels. It was the first model used to explain, but also to predict variances in contraceptive behaviour amongst women of reproductive age in the 1970s and 1980s. The aim of this theoretical, incorporated review is to inspect the appropriateness of the HBM as a framework for clarifying and envisaging modern health behaviour (Hall, 2012:79). HBM is a cognitive, interactive framework that views humans as coherent beings who make choices about whether they would like to participate in a health behaviour or not, using a multi-dimensional tactic (Rosenstock, 1974). This model is applicable to this study as the researcher intends to comprehend young women's behaviour and elucidations towards implant contraceptive communication campaigns. The various constructs within the HBM are as follows:

1.4.1.1 Perceived susceptibility

Perceived susceptibility refers to what a person believes to be their possibility of acquiring a disease or condition. For instance, young women have to believe that there is a possibility that they can get pregnant unintentionally before they can be interested in using contraceptives (Champion & Skinner, 2008).

1.4.1.2 Perceived severity

Perceived severity refers to individual beliefs about how serious a situation is and its significances (Glance, Marcus & Barbara, 1997). For example the young women may view the risks of contraception to be so severe that they would not be willing to use them.

1.4.1.3 Perceived threat

Perceived susceptibility and perceived seriousness of the situation both turn out to be a perceived threat. Once a person perceives a situation as being a threat, a need to take action sets in and will be motivated by information available about the situation (Hall 2012:76).

1.4.1.4 Modifying factors

Various factors such as different demographic, socio-psychological, but also essential variables may influence insights and, thus, indirectly motivate health-related behaviour. For example, socio-demographic factors such as educational achievement, may have an unintended effect on behaviour by influencing the insight of vulnerability, severity, advantages, and obstructions (Champion & Skinner, 2008).

1.4.1.5 Perceived benefits

Perceived benefits are defined as individuals' beliefs in the effectiveness of the recommended action to condense risk or seriousness of influence (Glance et al., 1997:82).

1.4.1.6 Perceived barriers

Perceived barriers are the possible negative features of a specific health action. They act as obstacles to undertaking suggested behaviours. A kind of non-conscious, cost-benefit analysis transpires wherein people gauge the action's anticipated benefits with perceived barriers. For example, young women might believe that contraceptives can help them, at the same time think about the possible side effects and the costs of accessing contraceptives (Champion & Skinner, 2008:47).

1.4.1.7 Self-efficacy

Self-efficacy is referred to as a conviction that an individual can successfully perform any behaviour required to produce particular results (Bandura, 1997). Bandura distinguished self-efficacy anticipations from result anticipations, defined as individual's estimation that a given behaviour will lead to certain results.

1.4.1.8 Cues to action

Hochbaum (1958) defines cues to action as tactics to trigger 'readiness'. Hochbaum (1958), for example, is of the view that willingness to perform (perceived susceptibility and perceived benefits) can be worsened by other factors, especially cues to initiate an act.

1.4.2 The Theory of Planned Behaviour

The second theory that provides a framework for this study is the Theory of Planned Behaviour (TPB). According to the Health Communication (2017:1), in 1980 Ajzen and Fishbein conveyed the theory of Reasoned Action (TRA). This resulted from attitude investigation from the Expectancy Value Models. Ajzen and Fishbein suggested the TRA after trying to assess the inconsistency among attitude and behaviour. This TRA was associated to deliberate behaviour. In later studies, it seemed that behaviour was not 100% deliberate and under control. Therefore, an addition of perceived behavioural control was made. The addition became the TPB, which envisages voluntary behaviour, because behaviour can be intentional and intentional. The concepts of the TPB are as follows:

1.4.2.1 Attitude

Attitude refers to the degree to which an individual appears to have a favourable or unfavourable estimation of the behaviour of concern. It considers results of performing the behaviour (LaMorte, 2018:1). Attitude-behaviour relative is a principal facet of the TPB model, with the whole centred on the attitude concept. Thus, attitudes towards an object are thought to be administered on a constructive-destructive range. It is more likely that an individual is likely to engage with something that is associated with attitudes which are related with constructive results than what is associated with attitudes related with destructive results.

1.4.2.2 Behavioural intention

Behavioural intention is referred to as one instant predecessor of real behaviour. That is the stronger individual's intentions to perform a behaviour or to accomplish their behaviour aims; the more successfully they are expected to be (Ajzen, 1996).

1.4.2.3 Subjective norms

According to Ajzen and Fishbein (1977), a subjective norm is defined as a form of belief that people agree or disagree with certain behaviour when undertaking and acting the same. This would mean young women's belief about whether most people agree or disagree with using contraceptives.

1.4.2.4 Perceived behavioural control

It is about how an individual perceives ease or difficulty of performing a behaviour of concern. This perceived behavioural control varies depending on conditions and actions. As a result an individual may have numerous perceptions of behavioural control depending on the condition (LaMorte, 2018). Perceived behavioural control (PBC) demonstrates a person's perception of the struggle or easiness that may relate to the performance of a specified behaviour (Teye-Kwadjo, 2014).

1.4.2.5 Perceived power

Perceived power is defined as the perceived consequences of each situation in making behavioural performance difficult or easy (Montano & Kasprzyk, 2015).

1.5 PURPOSE OF THE STUDY

1.5.1 Aim of the study

The aim of the study is to explore the variables that could predict the uptake of implant contraceptives among South African young women.

1.5.2 Research objectives

- x To investigate whether exposure to health communication messages about implant contraceptives could influence the intention to use them.
- x To establish benefits of implant contraceptives to young women.
- x To determine the perceived risks of implant contraceptives to young women.
- x To assess intentions to use implant contraceptives by young women.

1.5.3 Research questions

- x Does exposure to health communication messages about implant contraceptives influence the intentions of young women to use them?

- x What are the perceived benefits of using implant contraceptives to young womenfl
- x What are the perceived risks of using implant contraceptives to young womenfl
- x What are young women’s intentions to use implant contraceptivesfl

1.5.4 Hypotheses

- x ***Alternative hypotheses***

H₁ Exposure to implant contraceptive communication messages will influence the intention to use by young women.

H₂ If young women perceive more benefits than barriers of using implant contraceptives, they will indicate an intention to use them.

- x ***Null hypothesis***

H₀ If young women perceive more barriers of using implant contraceptives, than benefits they will not indicate an intention to use implant contraceptives.

1.6 RESEARCH METHODOLOGY

A quantitative approach was used for this study. Quantitative methods highlight objective quantities as well as numerical, mathematical, or numerical analysis of data gathered through polls, self-administered questionnaires, and surveys, or by manipulating pre-existing numerical data using computational procedures (Babbie, 2011). Quantitative research concentrates on collecting numerical data and generalising it across groups of individuals or to clarify a specific phenomenon. Leedy and Ormrod (2013:95) state that quantitative research attempts to quantify variables in a statistical way, by using commonly approved procedures of the world or carefully designed procedures of psychological characteristics or behaviour.

The quantitative method was applicable to this study, because the study is exploratory in nature. Therefore, empirical findings are likely to provide the numeric data needed to give the necessary foundational information to the issue.

1.6.1 Research design

An experimental design was employed in this study. According to Bless, Higson-Smith and Sithole (2013:146), experimental research designs are characterised by the use of randomisation to create two or more equivalent groups. The researcher randomly selected two groups of teenagers. This design assisted the researcher to understand young women's intentions to use implant contraceptives between the two groups based on exposure to a media message. One group was exposed to an implant contraceptive poster message, while the other one was not. Both groups were given the same questionnaire to complete.

The experimental design was suitable for this study because it enabled the researcher to acquire empirical information in an experimental setting which allows for control of the variables that are being tested (Bless et al., 2013:147). The results obtained from the study showed the differences between the group that was exposed to the implant contraceptive poster messages and the one which was not exposed to the poster messages.

1.6.2 Population

The population of this study encompassed secondary school young women from the Mankweng Circuit in Polokwane, Limpopo Province. Among 12 secondary schools in Mankweng, six secondary schools were randomly selected. Young women were suitable for this study because they are at risk of having unintended pregnancies. Polit and Beck (2014: 387) refer to population as the entire population of individuals with same the characteristics. This population was fit for this study because according to Statistics South Africa (2015:5), Limpopo Province had the third highest recorded number of teenage pregnancies in the country in 2013.

1.6.3 Sampling

In this study, simple random sampling and purposive sampling were utilised to choose the participants. Simple random sampling falls within a broad category of probability sampling. This type of sampling takes place where everyone who belongs to the population has a fair chance to become part of the study (Bless et al., 2013:167). By definition, sampling is the procedure of choosing participants from the population (McLeod, 2014). Purposive sampling was also used to choose the participants of the study. It falls within the broad category of non-probability sampling. In this type of

sampling, participants were chosen based on the decision of the researcher concerning the features of a representative sample (Bless et al., 2013:172). The sample of this study was randomly selected from six secondary schools in Mankweng Circuit in the Limpopo Province. The researcher has purposively selected young women aged between 18 years and above. The participants were relevant to this study because the majority of them had knowledge that was relevant to the study. In addition, according to Statistics South Africa (2015:3) the age group of 14-19 year olds recorded most teenage pregnancies in 2014 and the number escalated among 19 years olds.

The schools which were visited included Hwiti, Ditlalemeso, Makgongoana, Marobathota, Mamabudusha and Ramashobohle Secondary schools. A total of 306 teenage learners from the secondary schools made up the sample of this study. There was reasonable distance between the schools that were visited to avoid sharing of information and possible bias of the study by the learners.

1.6.4 Data collection

Data was gathered through self-administered questionnaires. Permission was requested from the Provincial Department of Education and the Mankweng Circuit. After permission was granted, the researcher visited different secondary schools under the Mankweng Circuit to ask permission to distribute the questionnaires. School principals from various schools accepted the request and scheduled dates and time for data collection. During the day of data collection, teachers were excluded from the data collection classroom to enable learners to complete the questionnaire freely. Questionnaires with open-ended and close-ended questions are distributed to the 306 learners. Bless et al. (2013:199) assert that the fact that respondents complete questionnaires without indicating their names ensured anonymity for participants to honest when answering questions.

1.6.5 Data analysis

Responses from the participants were analysed using the IBM Statistical Package for Social Science (SPSS). The main aim of analysing data was to enable the researcher to interpret and draw conclusions from the mass collected data (Tustin, Ligthelm, Martins & Van Wyk, 2005:102). Analysis of Variance (ANOVA) was applied to test the difference and associations between risk group and the benefit group. Furthermore, t-

tests were performed to test the significant variance between means of the dependent variables (risk, benefit and the intentions to use implant contraceptives). In addition, cross tabulation tests were applied to assess the variance between the control group and the experiment group. Lastly, the Chi-square test was conducted to examine the hypotheses of this study.

1.6.6 Quality criteria

1.6.6.1 Reliability

Reliability in this study was enhanced by asking an independent researcher to review the questionnaire for question phrasing and sequencing. According to Bless et al. (2013:221), reliability refers to “the extent to which the observable measures that represent a theoretical framework concept are accurate and stable over repeated observations.” A pilot study was piloted to improve the research tool of the study. The researcher carried out a pilot study at a secondary school that was not included in the final experiment to ensure reliability. A pilot study refers to mini versions of a full-scale study, as well as a particular pre-testing of a certain research tool such as a self-administered questionnaire. Furthermore, in analysing the data, an inter – coder reliability check was done. Bless et al. (2013:346) state that the degree of agreement between the two codings represents inter – coder reliability.

1.6.6.2 Validity

For this study, validity was improved by asking an independent researcher to review the questionnaire to make sure that all the objectives of the study and components of variables were represented. Validity is defined as an assessment of how well the tools exemplify all the components of the variables to be measured (Brink, 2009:200). Validity allows the researcher to discover whether observed alterations in the dependent variable actually relate to alterations in the independent variable. According to Helmenstine (2018:1) “an independent variable is the variable that is changed or controlled in a scientific experiment to test the effects on the dependent variable and a dependent variable is the variable being tested and measured in a scientific experiment”. The depended variables of this study include the barriers, benefits and the intentions to use implant contraceptives; and exposure to implant contraceptive poster message is the independent variable of the study.

The internal validity of a research study was positioned in the accuracy of conclusions drawn from the collected data and to the degree to which findings should indicate cause and effect (Leedy & Ormrod, 2013:97). According to Bless et al. (2013:392), internal validity is the degree to which a specific research design omits alternate explanations for the research findings. However, the external validity of the study was low. This is because, although the number of participants is high, they are few in relation to the entire province. In addition, they are situated in a rural province; therefore the findings could not be generalizable to all young South African women in the country. External validity by definition is the measure of the degree to which research findings can be generalised to a wider population (Bless et al., 2013:391).

1.6.6.3 Objectivity

In this study, the researcher has ensured objectivity by not considering her own potential effects such as researcher's beliefs and morals which may influence the researcher to study certain variables and exclude other variables. In addition to draw or omit certain conclusions (Leedy & Ormrod, 2015). According to Frambach, van der Vleuten and Durning (2013:552), objectivity refers to the degree to which individual biases are uninvolved and value free information is collected. The researcher did not allow personal feelings to tamper with the study. Furthermore, the researcher used simple English to formulate the research questionnaire in order to avoid leading questions and wording bias (Sarniak, 2015:1).

1.7 SIGNIFICANCE OF THE STUDY

The study makes a contribution to the existing literature on the uptake of implant contraception among young women. This study is conducted to fill the information gap about the practice of implant contraceptives in the Limpopo Province since there appears to be no previous research on implant contraceptive uptake among young women in the province. This study intends to contribute knowledge on why women choose to use or not to use implant contraceptives even though contraception in the public sector is free of charge in South Africa.

1.8 ETHICAL CONSIDERATIONS

1.8.1. Permission for the study

For the researcher to be able to collect data, permission was sought from all relevant institutions.

1.8.2. Autonomy and informed consent

Participants were informed about the aim of the study and those who were willing to take part were given consent forms to sign. Parental consent was not sought for participants because they are 18 years and above.

1.8.3. Confidentiality

Participants were informed that the information was strictly confidential and was only used for academic purposes.

1.8.4. Justice

All participants were treated equally regardless of their age, gender, race or religion (Bless et al., 2013:30). The researcher did not take into consideration the difference in participants. All participants were equal in the eyes of the researcher.

1.9. SUMMARY OF THE CHAPTER

Chapter 1 addressed the general outline of the overall study, concentrating on the introduction, reasons or rationale for the study, research problem, research objectives, significance of the study and ethical considerations. Chapter 2 and 3 of this study will examine literature. The literature review focuses mainly on the use of health communication campaigns as sources of health related messages and the use of contraceptives among young women.

CHAPTER TWO

HEALTH COMMUNICATION CAMPAIGNS

2.1 INTRODUCTION

This chapter provides a full detail about health communication campaigns. Firstly, it discusses an overview of communication campaigns. An overview is provided to create a better understanding about communication campaigns which provide a framework for health communication campaigns. Health communication campaigns are discussed as tools that provide awareness and knowledge among audiences. The researcher looks at recent available literature based on communication channels used to disseminate health related messages.

The effectiveness of health communication campaigns in providing effective health related messages to the intended audiences is provided in this chapter. Lastly, this chapter examines the role that health literacy plays on young women's decisions about contraceptive uptake plays on young women's contraceptive uptake.

2.2 OVERVIEW OF COMMUNICATION CAMPAIGNS

An overview of communication campaigns provides a better understanding of what these campaigns entail and their importance in educating the public on health related issues. Communication Campaigns focus on addressing most of the major public health issues, including achieving various behavioural outcomes ranging from initiating but also maintaining preventive health behaviour to ensuring cessation of behaviour that increase risk of health outcomes (Institute of Medicine, 2002). For instance, Snyder (2007) states that communication campaigns may have advanced a wide variety of health behaviours such as family planning, or using health services, and testing as well as screening for diseases.

By definition, communication campaigns are interventions that aim to create specific outcomes or effects, in a large number of people usually within a short time and through planned set of communication events (Rogers & Storey, 1987). These campaigns attempt to alter people's behaviours that lead to societal problems or the behaviour that will increase individual or social well-being (Coffman, 2002:6). Paisley

(1989:16) defines communication campaigns in terms of appeals by stating that communication campaigns “are defined with reference to their objectives and methods, with the former focusing on one group’s intention to influence other groups’ beliefs or behaviour, using communicated appeals”. For example, health communication campaigns apply integrated approaches to convey messages planned –directly or indirectly to educate and encourage target audience’s attitudes about altering or sustaining healthful behaviours (Robinson et al., 2014:361).

With regard to this study, the focus is on health communication campaigns. Public health campaigns are a vigorous approach of communication to encourage awareness on specific health issues among individuals at their own communities (Tay, Vertes, Haque, Kan, Burt & Sibbald, 2017:2). For instance, the global campaign “It’s your life – it’s your future” is a health campaign that is targeted at teenagers and young adults aged between 13 and 25 years. This campaign is planned in an effort to reach as many young individuals as possible. The World Contraception Day Partner Coalition plays a part in a number of projects globally that are tailored to the need for modern birth control and reproductive education of a particular region or target audience (Your Life, 2018). Therefore, health communication campaigns are geared towards addressing health issues that affect individuals, groups and the society at large. In addition, Schiavo (2013:4) defines health communication as

“a multifaceted and multidisciplinary field of research, theory, and practice concerned with reaching different population and groups to exchange health related information, ideas, and methods in order to influence, engage, empower, and support individuals, communities, health care professionals, patients, policy makers, organisations, special groups, and the public so that they will champion, introduce, adopt, or sustain a health or social behaviour, practice, or policy that will ultimately improve individual, community, and public health outcome”.

Regardless of the different definitions provided by various authors, the main aim of communication campaigns is to communicate a certain health message to the public and to influence human behaviour towards risky health behaviour.

Furthermore, health communication campaigns that integrate social marketing concepts are used to promote the use of contraceptives (Robinson et al., 2014:361). Campaigns use transitional goals, such as increasing knowledge or awareness of a

problem, with a notion that individuals will automatically take action when they become aware of a problem (Snyder, 2007:34). In as far as this study is concerned, health communication campaigns have the potential to create awareness and knowledge in an attempt to influence behavioural change towards contraceptive uptake among young women.

2.3 THE USE OF HEALTH COMMUNICATION CAMPAIGNS

Campaigners utilise health communication campaigns to disseminate health related messages to the public. Parvis (2002:27) argues that health communication campaigns are the most utilised and effective methods in disseminating health messages to the public, more especially about health issues that are of great concern to society. Green-Mills, Daviso, Gordon and Li (2013:48) contend that health communication campaigns reach desired audiences and result into small but short term effects of increasing awareness and decreasing misconceptions about health issues. Similarly, Snyder, Hamilton, Mitchel, Kiwanuka-Tondo, Fleming-Milici, and Proctor (2004:77) agree that media campaigns have effects on their audiences, which are measurable, but small in the short term.

Scholarly studies indicate that the main use of health communication campaigns is to inform and create awareness among audiences (Crawford & Okigbo, 2014; European Centre for Disease Prevention and Control, 2014; the National Collaborating Centre for Methods and Tools, 2017). According to the National Collaborating Centre for Methods and Tools (2017:1), health communication campaigns aim to educate, influence or motivate behaviour modification. Similarly, the European Centre for Disease Prevention and Control (2014:8) agrees that health communication campaigns aim to change behaviour or raise awareness. In line with the abovementioned, Crawford & Okigbo, (2014:11) state that one of the best approaches to promote good health in society is through the use of communication campaigns to inform and educate the public about healthy behaviours and good health lifestyle.

In developing countries Snyder (2003:11), found that majority of campaigns include information about both good and bad aspects of reproductive behaviours, with more campaigns emphasizing the positive outcomes (72%) than the negative (55%). Such

campaigns have the potential to inform, educate and create knowledge on reproductive health.

Health communication messages can be conveyed via channels such as traditional mass media, internet and social media (Weinreich, 2010). The use of traditional mass media in health communication campaigns were likely to transmit messages faster than other available forms of media (Whitney & Viswanath, 2004). Currently, with the rise of the Internet, the impressive growth in social media has been fascinating to watch, but intriguing as well, when you consider the multitude of applications these tools have unleashed, and their potential to influence population health (Levac & O'Sullivan, 2010:48). As Robinson et al. (2014:360) confer; health communication campaigners use multiple communication channels to promote behaviour change among large audiences. Messages portrayed through various contexts prove to have much effect than single in a medium of communication.

2.4 CONTEXTS OF COMMUNICATION USED TO DISSEMINATE HEALTH COMMUNICATION MESSAGES

Campaigners use various forms of communication channels in order to disseminate health related messages that intend to influence behaviour change among a large number of audiences. Health messages which attempt at bringing alteration in health behaviour must be tailored to the particular type of communication and tools that make extreme sense to the target audience (Nkanunye & Obiechina, 2017:13). Health communication messages can be conveyed through various communication channels, such as traditional mass media (TV and Radio); the Internet and social media including websites, Facebook. In addition, small media (brochure or posters) and group interactions workshops, community forums and face-to-face interactions (e.g, hotline counselling) (Robinson et al., 2014:361). Similarly, Storey et al. (2014:243) indicate that channels through which health messages transpire, usually include some amalgamation of nonverbal/visual, oral/spoken, and written forms, with or without the support of technology; Television, for example, projects with nonverbal images and spoken words, sounds, and text. In addition to these, face-to-face communication which is made up of a combination of nonverbal and oral content and print media (even with pictures) can be used. In this study, numerous communication channels are considered, based on the theory that communication interferences have

a synergistic influence, so that hearing or seeing messages about contraceptives through more than one channel has more influence than hearing or seeing messages in just one channel (Krenn, Cobb, Babalola, Odeku & Kusemijub, 2014:432). To pass on the message on contraceptive use, numerous communication channels such as mass media and interpersonal communication channels are used.

2.4.1 Mass media

Health communication campaigners use the media to publicise health related messages to the public. According to (Print Media Genre, 2015:1), media is viewed as “technologies for the mass distribution of messages to large audiences”. Marcel (2009:192) defines media as any means of transmitting information via various forms, devices and systems that make up mass communications considered as a whole, including newspapers, magazines, radio stations, television channels, and web sites. In relation to this study, Ajaero, Odimegwu, Ajaero & Nwachukwu (2016:1) state that one of the approaches that are often used in the promotion of contraception is the use of the mass media to generate awareness of the benefits of the use of contraceptives.

Exposure to mass media messages specifically on radio/TV has profound effects on reproductive behaviour (Hussain, 2011). This is because radio and television programs and the values they propagate are conveyed directly into the home, which has the likelihood to directly touch every member of the household, even those who are illiterate. The results further indicate that the role of mass media in altering both patterns of contraceptive use and ideas of ideal family size is another reason for low fertility among those have seen or heard contraceptive messages from the mass media (Hussain, 2011:9).

In Nigeria (Ajaero et al., 2016:1) indicate that exposure to media messages about contraception increases women’s likelihood to use contraceptives. Television messages account for most correlation for the mass media and use of contraceptives ($r = 0.239; p < 0.0001$), this is followed by radio messages ($r = 0.216; p < 0.0001$) according to Ajaero et al. (2016). They argue that the least association is found for access to newspaper messages. Therefore, access to contraceptive messages using these three mass media has been successful in influencing the use of contraceptives ($r = 0.156; p < 0.0001$).

In South Africa, the OneLove campaign had an extended reach and reception. After four months of the campaign, roughly 61% of the population had seen\heard at least one of the *OneLove* traditional media, at the same time, about half of the people had seen\heard one or more campaign elements with the *OneLove* logo. Target audiences found campaign messaging appropriate, truthful and educational; and had strong emotional appeal (OneLove, 2009). These provide evidence that mass media campaigns are likely to create knowledge among audiences. An evaluation of mass media campaigns to determine their impact on knowledge revealed that 14 evaluations found mass media campaigns to have impact on knowledge with the rate of 60% (Health communication unit, 2007). It is a well-known point that mass media executes only the knowledge function, while face-to-face communication executes an additional function of persuasion (Rogers & Shoemaker, 1971:476). However, the researcher also finds it significant to look at interpersonal communication as a means to transmit contraception information through health professional-patient relationships. These allows for face-to-face interactions between the health professionals and young women to provide mutual understanding with regard to contraceptives.

2.4.2 Interpersonal communication

Communication between two or more people allows for mutual understanding among communicators in the sense that one can ask for clarity and get instant feedback. In a recent study, interpersonal communication seemed to play a serious role in couples' decisions to use contraceptives and in their understanding (descriptive and injunctive) about advantages and disadvantages of using contraceptives (Rimal, Sripad, Speizer & Calhoun, 2015:11). Couples communicated about the benefits and risks of using contraceptives and come to a mutual decision about the form of contraceptive that suits them both. Grant & Bhardwaj (2016) state that interpersonal communication methods can include face-to-face interactives, small-group discussions, and facilitator-led curriculum-based programs. Furthermore, interpersonal communication tactics are utilised to encourage knowledge, attitudes and intentions regarding contraceptives.

A study conducted in Kajiado County, revealed that counselling, informal discussions and public communications were the only interpersonal communication channels used to pass a message about contraceptive use among the women that were interviewed

(Rehema, 2013:31). The findings further illustrate that counselling was widely used by 53% of the participants, followed by informal discussions at 36% and public communication at 11%.

In interpersonal communication interventions 86% of the participants reported improved knowledge and attitudes, of those 63% in a measure of contraceptives reported increased contraceptive use. More than half of those that measured fertility outcomes indicated a drop in fertility rate (Mwaikambo et al., 2011). In a Bangladesh Demographic and Health Survey, 2011, it was found that interpersonal communication was a major judge in the current contraceptive use. The results further show that interpersonal communication is more successful than mass media but on the other hand, it has its own weaknesses of being too expensive (Raut, 2015:223). Interpersonal conversations have shown the capacity to improve mass media health messages (Lubinga, Maes & Jansen, 2016).

2.5 EFFECTIVENESS OF HEALTH COMMUNICATION CAMPAIGNS

Health communication campaigns that incorporate mass media and other communication channels in the dissemination of health-related messages are successful in improving healthy behaviours (Robinson et al., 2014:360). Similarly, the Health Communication Unit (2007:2) indicates that amalgamation of media, face-to-face communication and events has been found to be most successful in communicating health information. For example, the OneLove campaign used multimedia vehicles such as Radio, Television and Print to disseminate messages (OneLove, 2009:26). As Hornik (1988) proffers, media are often more expensive at reaching individuals than are interpersonal channels, because they can reach large numbers after an initial investment to yield the message, whereas interpersonal channels have on-going expenses. For instance, a family planning message broadcasted on radio and television can reach mass audiences at a time while interpersonal communication can only focus on one-on-one session or a group of people at a time.

The level of efficiency of health communication promotions that encompass the media depends in part on particular behaviour that is promoted (Snyder, 2007). Campaigns which promote the users taking up a behaviour which is new to the person, or

replacement of an old behaviour with a new behaviour, may accomplish a higher achievement rate than campaigns that aim to cease an unhealthy behaviour individuals are already performing or prevent beginning of a risky behaviour (Snyder, 2007:33). Health communication campaigns should highlight information that is new to the target group and vital for behaviour modification (Snyder in Honik, 2002). If nearly all people are alert of a necessity for contraceptives but are hesitant on how to get it, messages should tell them which services offer contraceptives and not bother telling them that they need to use contraceptives.

In a meta-analysis of 48 campaigns in the United States of America, it was revealed that media health campaigns do have effects on audiences, but the effects are measurable and small in the short term. Authors warn that given such small campaign effects sizes, campaigners should set modest goals for future campaigns. A lot of evidence shows that health communication campaigns by themselves escalate awareness and knowledge and as such contribute to alterations in attitudes and behavioural goals of target audiences (Snyder et al., 2004). On the contrary, a 2004 meta-analysis shows that public health communication campaigns that encourage acceptance of health behaviours (e.g., contraceptive use) or discourage destructive behaviours (e.g., no to unprotected sex) are related with small, but important, behaviour modifications (Robinson et al., 2014:368). This effectiveness relies mostly on audiences' ability to receive and understand messages effectively and in some cases, the ability to provide feedback.

2.6 HEALTH LITERACY AND CONTRACEPTION

Health literacy affects young women's ability to receive health related messages, interpretation of the message and acting accordingly. Health literacy is a significant prerequisite to how people make health related decisions in a variety of contexts (Schiavo, 2014:72). Health literacy skills include the ability to read and use numbers (Berkman, 2010:3). Women who are able to read numbers in a sense that they are able to identify clinic return dates and instructions on medications are considered health literate. In a qualitative study in Urban Chicago women, Yee and Simon (2014:397) revealed that little literacy and no schooling were noted to be obstructions to contraception knowledge and use. The findings further indicate that failure of

understanding in relation to contraception use instructions is common in the people with low literacy.

El-Ibiary and Youmans (2007:58) argue that it is essential for consumers to have at least a high school reading level in order to understand contraception instructions. Very little has transformed in the past years in relation to ability to read over the counter contraceptive instructions, regardless of calls to simplify transcribed instructions. A systematic review of health literacy and women's reproductive health by Kilfoyle, Vitko, O'Connor and Bailey (2016:1249), indicates that health literacy is related to knowledge about contraception. Women who were exposed to a standard video about attaining contraceptives, disclosed that low health literacy was related to less knowledge concerning the significance, mechanism of action, and threats of oral contraception. The results further indicate that young women with grade 6 or lower levels could not detect the importance of contraceptives compared to those with grade 8 and above who can detect the importance.

Furthermore, in Limpopo Province, Wood and Jewkes (1997:43) state that women of the reproductive age, especially in the rural areas, have little knowledge about reproductive health due to lack of schooling of their mentors and social taboos. It can be argued that educational interferences can help increase understanding of accessible contraceptive methods. This may empower people to make informed decisions and use contraception more efficiently. This is because health literacy is dependent on levels of essential literacy and related intellectual development. This should be deliberated in context of the fact that 18% of South Africans are illiterate. Of these 41% have only primary school, 31% have some secondary schooling, while just 20% had completed secondary school (Kleinhans, 2015).

2.7 SUMMARY OF THE CHAPTER

This chapter provided an overview of communication campaigns which laid a foundation for a framework, to be discussed in the next chapter, for understanding health communication campaigns in relation to this study. The different uses of health communication campaigns have been examined in this chapter. It further investigated an insight of various communication contexts used in health communication to deliver health related messages. An analysis of the effectiveness of health communication

campaigns in disseminating health related information has been provided. This chapter acknowledged the crucial role of health literacy in influencing how young women receive health messages. The next chapter offers literature based on young women and contraceptives.

CHAPTER THREE

YOUNG WOMEN AND CONTRACEPTIVES

3.1 INTRODUCTION

This chapter discusses the notion of contraceptives from a practical point of view. In relation to this study, a detailed discussion on contraceptive uptake among young women is provided. Factors that influence the use of contraceptives among women in general such as the demographic, socio-economic, attitudinal and cultural factors are interrogated in this chapter. In addition, access to contraceptive information forms part of this chapter. The chapter further unfolds detailed discussion on young women's knowledge and awareness of contraceptives.

An investigation of contraception and young women's choice to use contraceptives is provided. It further questions access to information about contraception. An examination of factors such as accessibility and affordability of contraceptives in South Africa is provided. The two broad categories of traditional and modern contraceptives will be discussed. This will lead to an analysis of various categories of both traditional and modern forms of contraceptives.

Furthermore, the chapter examines the uptake of implant contraceptives as the focus of this study. In addition, the chapter deliberates on the benefits and the barriers of using the implant contraceptive method.

3.2 CONTRACEPTIVE UPTAKE AMONG YOUNG WOMEN

Unprotected sex appears to account for unintended pregnancies among young women hence; contraceptive uptake can be effective in this regard. Contraceptive uptake assists married and women in union achieve their basic right, one of determining freely and responsibly if, when and how many children to have. The increasing use of contraceptive methods has not only led to developments in health-related effects such as reduced maternal mortality and infant mortality, but has also led to developments in education and cost-effective outcomes, especially for young women (United Nations, Department of Economic and Social Affairs, Population Division (2017). Nyarko (2015:1) views contraceptive uptake as a necessity that is "quite vital to the efforts of promoting contraceptive use among female adolescents as

well as the implementation of effective family planning programs”. Contraceptive uptake is defined as the proportion of women who are presently using, or whose sexual partner is presently using, at least one method of contraception, irrespective of the method used (WHO, 2018:1). Similarly, Morroni et al. (2016:97) defines contraceptive uptake as the amount of women of reproductive age who are ‘presently’ using a contraceptive method.

Contraceptive uptake among women of the reproductive age enables young women to avoid the possible consequences of contraceptive non-use. According to Wood and Jewkes (2006:109), South African young women participate in sexual risk-taking behaviors, including early sexual initiation, unsafe sex, and lower rate of condom and contraceptive use, and often involve concurrent sexual partners. In an attempt to fight the above problems, Onyensoh & Tumba (2011:1); Ramathuba, Khoza & Netshikweta (2012:1) indicate that some years ago, the notion of contraceptive use as a means of family planning was made a right of every woman at reproductive age. The reason was to help condense the increasing levels of unintended teenage pregnancies. The notion of contraceptives as means of preventing pregnancy in the Republic of South Africa has transformed, with some totally opposing and others accepting it (Ramathuba, Khoza & Netshikweta, 2012:1). Similarly, Onyensoh and Tumba (2011:1) indicate that the South African government executed approaches to decrease the number of unintended and unplanned pregnancies, like making contraception a basic human right to every woman. Contraceptive uptake among young women varies from one country to another.

In most African countries the level of contraceptive uptake has escalated. After studying women of reproductive age (15-49) who are married or in a union, the United Nations, Department of Economics and Social Affairs Population Division (2018) found that contraceptive uptake has increased in African countries such as Uganda, Ethiopia, Ghana, Liberia and Senegal. The above-mentioned countries experienced an increase in contraceptive uptake over a short period of time between 2016 and 2017. The findings demonstrate that Uganda moved from 36.9%-38.4% in 2017 with an increase rate of 1.5%. Similarly, Ethiopia escalated from 35.9%-36.5% in 2017 with an escalation rate of 0.6%. Furthermore, Ghana rose from 30.6%-33.0% in 2017 with a rise rate of 2.4%. Moreover, the results indicate that Liberia accelerated from 20.2%-31.0% in 2016 with an acceleration rate of 10.8%. Lastly, Senegal moved from 23.3%-

25.1% with an increase rate of 1.8%. However, other countries have experienced a decrease on the level of contraceptive uptake among women.

Contrary to the above results, some countries have experienced a decline on the level of use. The United Nations, Department of Economics and Social Affairs Population Division (2018) further indicates that countries such as Kenya, Burundi, Burkina Faso, Nigeria and South Africa experienced a decline in contraceptive uptake among women of the reproductive age. The results show that Kenya dropped from 66.3%-61.1% in 2016 with a drop rate of 5.2%. In Burundi, contraceptive uptake among women of the reproductive age decreased from 31.7%-28.5% from 2016-2017 with a decrease rate of 3.2%. Furthermore, Burkina Faso moved from 25.4%-25.4% from 2016-2017 with a decrease of 0.1%. Moreover, it was found that Nigeria experienced a decrease from 20.4%-13.4% with a decrease rate of 7%. In addition, South Africa as the main focus of this study has dropped from 59.9%-54.6% in 2016 with a drop rate of 5.3%. Contraceptive uptake seems to be influenced by various factors in a positive and negative manner depending on an individual.

3.3 FACTORS INFLUENCING USE OF CONTRACEPTIVES AMONG YOUNG WOMEN

Certain factors play a role on young women's decisions to use or not to use contraceptives. Scholars have identified factors that negatively contribute to the use of contraceptives among young women. Factors such as inconsistency and non-perfect use of contraceptives contribute negatively to young women's efforts to use contraceptives (Blanc, Tsui, Croft & Trevitt, 2009; Chandra-Mouli, McCarraher, Phillips, Williamson & Hainsworth, 2014; Higgins & Smith, 2016). Blanc et al. (2009:63) are of the idea that contraceptive uptake among young women is increasing but, it is characterized by shorter times of reliable use, more contraceptive disappointment and more discontinuation for other reasons. Similarly, Chandra-Mouli (2014:4) states that inconsistent use of contraceptives among young women has been found to be the major cause of contraceptive failure. The findings in Chandra-Mouli (2014:4) indicate that one of the participants showed that they take a pill when they know that their boyfriend is coming and they are going to make love. They further indicated that in cases where they forgot to take a pill before making love they take it after making love. In addition, to support what the previous authors' state, Higgins

and Smith (2016) found lack of consistency in terms of how the user consumes contraceptives according to their own way of understanding than the way health care professionals have prescribed. They state that limited success of contraception can be affected by personal use in terms of typical use and perfect use. There are various factors account for the utilisation of contraceptive such as the “socio-economic status, knowledge about contraceptives, attitudes about issues related to contraceptives, residential area, educational status, counseling received on contraceptives, the attitudes of the contraceptive providers and cultural values, norms and beliefs” (National Department of Health, 2001:7-9). For simplicity, the abovementioned factors have been categorised into demographic, socio economic, attitudinal and cultural factors.

3.3.1 Demographic factors

The use of contraceptives plays an important part in shaping and building the society at large. Contraceptive use remains a leading population and health matter because of its significant part in the demographic changes in different countries with changing degrees of demographic conditions (Solanke, 2017:1). Demographically, young women’s use of contraceptives is influenced by their individual characteristics like as their age and marital status, resources of household and the community in which an individual belongs (Pulamuleni, 2013:92). Young women tend to engage in sexual intercourse from an early age. Women’s age has a curvilinear influence on the use of contraceptives, with lower rates of use at younger age and higher rates of use for single women than married women (Ejembi, Tukur & Alhaji, 2015:4).

The age that young women start to engage in sexual relations contributes to their willingness to use contraceptives. In the developing countries, majority of young women start to engage in sexual intercourse before the age of 15 years (Marrow, Sweat & Morrow, 2014:371). A study conducted in urban South Africa found that 64% of females and 76% of males reported having had sex at the age of 17 years (Marteleto, Lam, & Ranchhod, 2008:358). In addition, Nyarko (2015:6) indicate that demographic factors such as age play a crucial role on young women’s use of contraceptives. In the Democratic Republic of Congo, Izale, Govender, Fina, and Tumbo (2014:4) revealed that one third of contraceptive users (n = 31.9%) were women younger than the age of 20. The results indicates strong statistically-substantial relationships between past use of contraceptives with age (p = 0.000).

In addition, Ibisomi (2014:42) in Nigeria found that spouse age difference, was undesirably related with contraceptive use. This showed that if the woman is young and the sexual partner is older, it is unlikely that the woman can use contraceptives. A study conducted in South Africa revealed that “in poor countries, the need for contraception is greatest among population groups at the highest risk of health and socio-economic vulnerabilities because of their reduced capacity to cope, respond to and counter livelihood “shocks” (Ayiga & Kigozi, 2016:171)”.

3.3.2 Socio-economic factors

Young women’s socio-economic status plays a crucial role on their intention to use contraceptives. There is mounting evidence of the influence of socio economic status on health, making health inequalities one of the major public problems worldwide (Marmot, 2005:1099). Adler and Newman (2002:6) indicate that factors such as income, education and occupation are associated to an extensive variety of health problems encompassing the high level of unwanted pregnancies. After an investigation in the Northern Nigeria, Unumeri, Ishaku, Ahnonsi and Oginni (2015:1951) concluded that women’s socio-economic status is confidently related with the use of contraceptives among young women.

A study conducted in South Africa found that the middle to high income earners had higher chances of increased contraceptive use, which were similar between educational achievement and family planning method (Chersich et al., 2017). Specifically these authors found that the contraceptive method combination for young women with higher education levels varied significantly from others: 14.5% are using oral contraceptives and 2.4% had used emergency contraception.

There is a likelihood that young women and their partners can use contraceptives if the other partner has education than when both partners are illiterate (Ibisomi, 2014:42). Educational level is a predictor of socio-economic status, which associates with the use contraceptives among young women (Ejembi et al., 2015:6). Similarly, a cross-sectional study conducted in Calgary, Canada found that the only significant socio-demographic predictor of not using any form of contraception is low educational attainment (Metcalf, Talavlikar, du Prey & Tough, 2016:2 8). For this study, young women’s socio-economic factors can contribute to contraceptive uptake in either a negative or a positive manner depending on their socio economic status.

3.3.3 Attitudinal factors

Negative attitude towards young women who need contraceptive services serves as a negative factor towards contraceptive uptake. Undesirable healthcare professional attitudes are stated as a barrier to contraception services utilization, especially for marginalized user groups, like teenage users (Silumbwe, Nkole, Munakampe, Milford, Cordero, Kriel, Zulu, & Steyn, 2018:394). Similarly, Chilinda et al. (2014:1712) state that healthcare providers' unprofessional attitudes towards young women who seek contraceptives have serious health consequences on the lives of young women. A study conducted among young women in South West Nigeria, indicate that provider behaviours and attitudes around contraceptive methods are more obstructive for young adolescents than for older, married women, for whom health care providers are more willing to offer a varied range of contraceptive methods, and mostly longer-acting methods (Sieverding, Schatzkin, Shen & Liu, 2017:23).

In the Democratic Republic of Congo, a study revealed that both young women and men had comparable attitudes toward contraceptives. Overall, most young women felt that using a contraceptive method to alleviate pregnancy was clever (Muanda, Gahungu, Wood & Bertrand, 2018:80). On a different perspective, the findings of a study conducted in South Africa, Limpopo indicates that the majority of young women expressed negative attitudes towards contraceptives (Ramathuba, Khoza & Netshikweta, 2012). The results further indicate that 72% of the participants never discuss contraceptives with their parents and 51% never talk about contraceptives with their boyfriends because they are scared, they want to appear cool and they mentioned that contraceptives are an intimidation to their cultural morals and customs (Ramathuba et al., 2012).

3.3.4 Cultural factors

Within black communities cultural beliefs may be responsible for preventing young people from acquiring more information about reproduction. This is attributable to the fact that culturally, parents are not inclined to talk about sexual information with their children (Ramathuba et al., 2012). Cultural values, beliefs and norms significantly encourage decision-making concerning sexual and reproductive issues, such as the total of children one need, when and how to space children's births, and contraceptive use. Together with the need for women to prove ability to give their partners babies, these values continue to encourage the sexual and reproductive choices of young

women (National Contraception Policy Guidelines - KwaZulu-Natal Department, [sa]:11).

Srikanthan and Reid (2008:129) indicate that religious and cultural factors have the likelihood to encourage the acceptance and use of contraceptives by couples from various religious upbringings in very distinctive ways. It is further indicated that cultural factors are similarly important in couples' decisions about the number of children to have and contraceptives. Social and cultural obstructions to contraception remain strong, obstruction to contraceptive use, primarily from women's spouse or partner, has not declined since 2006 and men's approval of contraceptives is crucial for increasing contraceptive use (Chae & Woog, 2016). A qualitative study in rural Uganda showed that due to the socio-cultural anticipations and values devoted to marriage, women and children remain an impediment to modern use (Kabagenyi, Reid, Ntozi & Atuyambe, 2016:84).

Furthermore, a study in the Democratic Republic of Congo demonstrates that from the 24 focus-group interactions held among couples, a strong devotion to cultural norms preferring large families was one of the factors that contributed to the use of contraceptives. The majority of couples who did use contraceptives did so to create space between the births of their children while still expressing their need for large families (Muanda, 2017:1019).

According to Peer and Morojele (2013:406), contraceptive use among sexual partners is influenced by cultural values, beliefs and communication with sexual partners. In South African communities, mainly in the rural areas, is still male-dominated and women have the pressure to prove to their sexual partners that they can have babies. Furthermore, a study conducted in Western Cape Province, found that women who strongly agree that their culture allowed men to make decisions concerning reproductive health were 1.28 (95% CI 0.96 - 1.71) times more likely to utilise effective contraceptives than women who disagreed (Peer & Morojele, 2013).

In addition, a study conducted in Limpopo Province, found that in rural areas; there is still disapproval for contraceptive use and therefore young women often use contraceptives in secrecy. They often hide contraceptives from their parents and this causes them to forget to take them and be at risk of experiencing unintended pregnancies. Young women further indicated that in most cases, parents who discuss

contraceptives with their children are considered to be promoting promiscuity, because this seems like allowing children to sleep around (Lebese, Maputle, Ramathuba, & Khoza, 2013). Cultural taboos are primary obstructions to informed discussions about sexual and reproductive health matters, particularly with concern to young people (Cobb, 2010:83). Norms and constructive values which arise from or are motivated by religious and cultural traditions need to be appropriately understood in order to be used as strategic instruments to promote reproductive health consciousness among susceptible young women (UNFPA, 2011:8)

3.4 ACCESS TO CONTRACEPTION INFORMATION

Access to contraceptive information is vital to promote contraceptive uptake among young women. “In resource-limited, rural locations in Africa, where access to information is scarce, availability of modern family planning methods alone will likely not ensure uptake, especially when access is limited to clinical settings” (Ndayizigiye, Fawzi, Lively, & Ware, 2017:219). In support of the above-mentioned, Lebese et al. (2013:5) state that lack of access to information often contributes to contraceptive discontinuation among those who are using them and those who do not use will not show any intention to use them because they do not have relevant information pertaining contraceptive use. Furthermore, Wood and Jewkes (2006:112) proffer that lack of access to information provides space for inaccurate notions about contraceptives (Lebese et al., 2013:5).

Access to the media also plays a role to influence contraceptive use among young women as young women can be able to access contraceptive related messages from various media forms such as the internet (Indongo, 2008:50). In a study carried out by Lebese et al. (2012), it is indicated that young women living in the villages have no access to contraceptive messages. The results further indicate that available information on contraception messages is in a written form, most of young women’s parents are illiterate and this results into lack of information.

In association to this study, ensuring access to contraceptive information has countless socio-economic benefits and it can enable young women to determine whether to use contraceptives or not and when to have children by enabling young women to complete their studies (UNFPA, 2010:9). Access to contraceptive

information familiarise young women with available forms of contraceptives and allows them to make informed decisions on the type of contraceptives they wish to use.

3.4 YOUNG WOMEN'S KNOWLEDGE AND AWARENESS OF CONTRACEPTIVES

In European and American women, the awareness of having contraception is high and approximately 98% prefer using the contraceptive pill (Johnson, Pion & Jennings, 2013:1). A study conducted in Nigeria by Bankole and Onasote (2017:202); found that “the most commonly known contraceptive method is the male condom, cited by 98.1% of respondents. This was followed by oral pills, known to 90.0%, injectables (86.1%), the female condom (70.5%), emergency contraception (65.3%) and intra uterine device (IUD) (50.3%). The least known methods of contraception were female sterilisation (22.8%) and male sterilisation (16.0%)”.

Similarly, a study conducted in Botswana by Hoque, Ntsipe and Mokgatle-Nthabu (2013), indicates that for both male and female students there was good awareness concerning contraceptives' at the rate of 58.6% and 59.1% for both males and females. Furthermore, in a national household survey in South Africa, Chersich (2017:308) explored that “of women who had ever had sex, almost all (92.0%) were aware of injectable contraception, with similarly high levels of knowledge of oral contraception (89.9%) and female sterilisation (73.3%)”. The findings in Chersich (2017:308) further show that “only about half, however, heard of IUDs, emergency contraception or male sterilisation (56.1%, 47.3%, and 45.3%, respectively)”.

In a descriptive cross sectional survey conducted in Pakistan, Mubarik, Jameel and Khalil (2016:2229), indicate that a total of 80% women had heard about the implant contraceptives and only 21% of them had used the implant form of birth control. These findings further show that the good awareness level contributes to the high level of knowledge among young women.

In terms of contraceptive knowledge among young women, a study conducted in Ghana, revealed that “98% of women and 99% of all men had knowledge of at least one method of contraception” (Opoku & Kwaununu, 2011). Furthermore, a study conducted by Elkalimi et al. (2015:96) in Nigeria, found that majority of the participants had knowledge of various contraceptive methods. In addition, in South Africa, Ramathuba et al. (2012), found that 75% of the participants had knowledge about

various contraceptive methods, such as the pills (43%), condoms (58%), injections (50%), femidoms (40%), Intra Uterine Device (IUD) (10%), and diaphragms, spermicides and jellies/foam (<3%). A particular reference was made with regard to emergency contraceptives, with only 17% of the participants having knowledge of what they were but unable to describe when they should be taken. In addition, 66% of the participants had no idea what a female condom looked like, whilst 10% had knowledge of what IUD is. Similarly, Mazuba (2013:25) demonstrated knowledge of contraceptives (75.4%) among participants with only 11.5% who reported to having never heard of contraception. Knowledge of various forms of contraceptives enables young women to make informed decisions about the type of contraceptives they wish to use.

3.5 THE USE OF CONTRACEPTIVES: A CHOICE

Increasing the variety of contraceptive choices available is a crucial component of ensuring access for individuals to the most effective method of their choice (Chersich et al., 2017). Mitchell and Stephens (2004:167) indicate that contraception use and compliance is related to the range of methods available and young women's choice. In association to this study, the implant contraceptives were "introduced into the South African (SA) national contraception programme in early 2014, aiming to expand the contraceptive method mix" (Pillay, 2017:815).

According to the United Nations, Department of Economics and Social Affairs Population Division (2018), the preferred form of contraceptives among young women in Ethiopia range from birth control injections at a rate of 23.3%, followed by implant contraceptives at the rate of 8.3% and contraceptive pills at a rate of 1.8%. It is further indicated that IUD's are used by 1.2% whereas 0.2% users preferred female sterilisation and only 0.1% preferred the male condom.

In Kenya, a total of 27.6% young women preferred the birth control injection over other forms of contraceptives with 18.1% young women who preferred implant contraceptives and 5.1% preferring the contraceptive pill. Moreover, 3.5% preferred to use IUD's and 3.0% indicated preference over female sterilization. On the other hand, 1.8% chose male condoms, 0.2% indicated that they prefer emergency

contraceptives and only 0.1% opted for female condoms (the United Nations, Department of Economics and Social Affairs Population Division, 2018).

Lastly, South African young women show that they prefer birth control injection with a user rate of 23.9%. Contraceptive pills are used by a total of 8.4% and male condoms are used by a total of 8.8%. Those who opted for female sterilization account for 7.7%, implant contraceptives 3.3% and IUD's 1.2%. In addition, only 0.1 young women selected female sterilization (The United Nations, Department of Economics and Social Affairs Population Division, 2018). "Successful family planning programs listen to the different needs of clients and respond with strategies that expand informed, voluntary contraceptive choice, thereby offering a range of affordable contraceptive methods and ensuring continuous supplies of contraceptive commodities" (Yeakey & Gilles, 2017:1).

3.6 ACCESSIBILITY AND AFFORDABILITY OF CONTRACEPTIVES SERVICES IN SOUTH AFRICA

Provision of a user-friendly service at health care facilities has a potential to influence likelihood to make use of the services. Quality service is identified as a crucial aspect of contraception provision. However, service quality, which communicates to user's acceptability, is just one of the defining qualities of access to contraceptive services. Access to contraceptive services must also comprise physical accessibility and financial affordability (Morronei et al, 2016:101). Similarly, Skiles et al. (2015:20) proffer that increasing accessibility to contraceptives encompasses improvements in the affordability and geographic proximity. In addition, the increasing access to effective, accessible, acceptable and good-quality contraceptive services is essential to its uptake, especially clinical contraceptive services. Most research focuses on access to contraceptive services and tends to specifically focus on geographical access. Geographical access is about distance to health care facilities, which is measured by either the density of service delivery centres or the time it takes to get to the service delivery centre (Ejembi et al., 2015). Women access contraceptives from different health care facilities including public health care centres, school-based health care centres and private health centres.

3.6.1 Access to Contraceptives

3.6.1.1 Access to contraceptive services at public clinics

Public health care facilities provide family planning services for all women who seek family planning services. Public family planning clinics have been a the main component of the health care safety net for low-income women in the United States and will continue to be an essential point of access under the Affordable Care Act. This delivers crucial infrastructural support for clinics and subsidises the cost of contraceptive services for women (White, Hopkins, Aiken, et al., 2015:851). In South Africa, the National Department of Health (2012) reveals that nationally, 88% of primary health care institutions provided contraceptive services five days a week. Furthermore, the 2009 National Department of Health annual report states that 1053 (30.3%) of the institutions offer an acceptable contraceptive mix to young women. Furthermore, the Times Live (2017) indicates that Clinics run by the City of Cape Town facilitated more than 900,000 family planning and contraceptive appointments between April 2016 and March 2017. The city made these revelations ahead of a major global summit co-hosted by the Bill & Melinda Gates Foundation, which has hailed contraceptives as one of the "greatest antipoverty innovations the world has ever known. While at the time this may have been an indication that young women have access to contraceptives services at health care centres, in March 2018, the media reported that clinics in the country had run out of contraceptives (Petersen 2018).

When conditions are not ideal for access of contraceptives, this places a burden on women. For example, in a study conducted on making contraceptives accessible in resource-poor settings by Prata (2009:3097) found that accessing family planning services at clinics is hard, sometimes health care provides refuse to offer adolescent contraceptives and only offer contraceptive services on particular days of the week. In addition, provision of poor service quality, including limited contraceptive choice and inability to change contraceptive methods if not satisfied with the recommended one, are all facility limitations imposed on young women that hinder access to contraceptive services. In other words, accessing family planning services is not simple for young women who require contraceptives because you may find that young women visit clinics at weekends because during the week they are not able to visit due to school commitments.

3.6.1.2 Access to family planning services at School-Based Health Care Centres

Family planning services are important to young women who intend to plan their reproductive life. “Access to health care, especially for adolescents, is a high priority in many countries and particularly for sexual and reproductive health” (Mason-Jones, Crisp, Mathews & Dhansay, 2012:1). These impose a need for school based health centres because adolescents spend most of their time at school. Mason-Jones, Crisp, Momberg, et al. (2012:1) reported that school-based healthcare (SBHC) has the likelihood to promote the availability of contraceptive services particularly for adolescents who are normally underserved. Locating contraceptive services in schools has the likelihood to decrease transport costs, increase accessibility and provide associations between schools and communities. Interventions such as SBHC enable young women to access contraceptive services easily.

SBHC's provide several health care services to attending students. Many middle and high school-based clinics offer family planning services, which generally comprise abstinence and contraception counselling, pregnancy and STI testing, and may also distribute contraceptives (County Health Rankings & Roadmaps, 2018:1). “Adolescents often face hurdles that may interfere with accessing contraceptive services. School-based health centres (SBHCs) are available to many teens in the United States; however, only half of SBHCs that serve adolescents are permitted to provide contraception” (Moriarty Daley & Polifroni, 2017: 367).

A study conducted in urban California, Ethier, Dittus, DeRosa, et al. (2011:565) revealed that access to an SBHC did not encourage acceptance of reproductive health care for either males or females and did not encourage contraceptive use, either hormonal or condoms, for males. Also among female students, those with access to an SBHC were more likely to have used emergency contraception at last sex (AOR = 2.1, 95% CI = 1.08–4.22).

Despite young women's need for contraceptive services, relatively few SBHC's provide contraceptive services on site. According to Advocates for Youth's most recent survey, fewer than 25% of SBHCs offer contraceptive services. Approximately 74% of SBHCs reported being banned from distributing some or all contraceptives. The Advocate for Youth (2008:1) indicates that respondents reported that school districts limit the provision of contraceptives at 79.9% of SBHCs, making condoms

available at 76.1%, and offering contraceptive prescriptions at 70.5%. By contrast, state laws limit provision of contraceptive prescriptions at 19.2% of SBHCs, provision of contraceptives at 20.9%, and making condoms available at 20.1%. All provinces in South Africa have been hit by a shortage of oral contraceptives at state facilities. Women have been advised to consider using alternative contraceptive measures, including: an intrauterine contraceptive device (IUCD), which is inserted into the uterus (womb); a subdermal implant; a contraceptive injection; or condoms (Times Live, 2018:1). Shortage of contraceptives at government health facilities has a potential to drive young women to access family planning services at private health care facilities.

3.6.1.3 Access of contraceptives at private health care facilities

Private health care institutions play a major role in enabling contraceptive access among young women. The Family Planning Evidence Brief (2017:1) shows that the “private sector plays a critical role in family planning and can contribute to the total market approach to providing contraceptives. The private sector accounts for around two-fifths of contraceptive provision worldwide with the share higher in some countries. In Nigeria 60% of women obtain contraceptives in the private sector”. Similarly, Ugaz, Leegwater, Chatterji, et al. (2017:51) reported that the private sector is already a significant source of contraceptives in sub-Saharan Africa with roughly one-third of modern contraceptive users obtaining their contraceptives from a private-sector source. Nigeria in particular has a large private health sector, covering about 60% of all health services received in the country. In addition, a study conducted in urban Nigeria and Kenya, revealed that private health sectors entities such as pharmacies are major sources of oral contraceptives. The majority of injectable users obtained their method from public health facilities in both countries, but 14% of women in Nigeria and 6% in Kenya obtained injectables from drug shops or pharmacies (Corroon, Kebede, Spekto et al., 2016)

In a national household survey, Chersich (2017:310) found that “a notably higher proportion of oral and emergency contraception users, and female and male sterilisation users, acquired their contraception from a private facility or doctor (23.0%, 21.3%, 26.5% and 41.5% respectively), while a considerable proportion of IUDs were obtained from a pharmacy (27.3%)”. Young women who seek family planning services at private sectors are influenced by various reasons. According to Keesara, Juma and Harper (2015:138), the respect that young women get at private health care facilities

is an added benefit of private facilities. In the same study, women showed that private facilities treat their customers with care and attention compared to public facilities where participants experience verbal harassment, inattention, and rudeness. Respectful behaviour includes answering questions kindly and allowing sufficient time for each client. However, accessing family planning services at private sectors can be costly than when accessed at government health care facilities.

6.3.2 Affordability of Contraceptives

Contraceptives can be accessed at different health facilities and the costs vary according to the type of institution young women access contraceptives from. Bhekisisa (2015:1) indicates that contraceptives are costly at private sectors and can also be accessed for free at government health care facilities. It is further indicated that contraceptives such as condoms cost between R20 and R120 for a box of three, injections cost between R90 and R250 for every top-up injection, the pill costs between R90 and R350 a month whereas an Implanon costs R1 700 in the South African private sector. In addition, all these forms of contraceptives can be accessed free at South African public health care facilities. The Western Cape Government (2018) pronounced that contraceptives can be accessed for free by stating that there are reproductive clinics across the province that provides access to free counselling and contraceptives. Free access to reproductive health services influences the rate of contraceptive uptake among young women who are in need of contraceptives.

The fact that contraceptives can be accessed free at government health facilities means that contraception is a right of every woman regardless of their financial status. South Africa had one of the highest contraceptive prevalence rates of 60% in comparison to other countries in the region because contraceptives are free (Savage-Oyekunle & Nienaber, 2015:548). Free access to contraceptives empowers young women to make right decisions about the choice of contraception they need regardless of their socio-economic status. According to Goldstuck (2015:1), “older methods such as the oral contraceptive pill, injectable progestogens and copper intrauterine contraceptive devices (IUCDs) have come down considerably, meanwhile the cost of the newer hormone-based long-acting reversible contraceptive (LARC) methods has not”. This means that contraceptive methods are affordable and young women can choose whether to access contraceptives from public health care centres where contraceptives are free of charge or they can get affordable ones from the

private health sector. For this study, knowledge on various categories of contraceptives has the ability to enable young women to make informed decisions on the type of contraceptives they need.

3.7 TRADITIONAL VS MODERN CONTRACEPTIVES

Contraceptives are grouped into two categories of traditional and modern forms. These forms of contraceptives are both used for the same purpose of preventing pregnancies but differ in terms of their advantages and disadvantages. Modern contraceptives are “technological advances designed to overcome biology, in this regard modern contraceptives must enable couples to engage in sexual activities at any mutual desired “time” (Hubacher & Trussell, 2015:420)”. Fertility awareness methods are classified as modern contraceptives, and withdrawal and rhythm methods as traditional contraceptives (WHO, 2018.1). The use of modern contraceptives has grown much more than the use of traditional contraceptives due to relative effectiveness associated with modern contraceptives when compared to traditional contraceptives (Javaranza, 2013:30). Both modern and traditional contraceptives are used for the same purpose but modern contraceptives have greater effectiveness of alleviating unwanted pregnancy than traditional contraceptives (Marquez, Kabamala & Laguna, 2017:2).

Statistically, in most African countries such as Ghana, Burundi, Ethiopia and South Africa, there has been an increase in traditional contraceptive uptake among women of the reproductive age (15-49 years). Traditional contraceptive uptake among women in Ghana moved from 5.0%-5.6% in 2017 with an increase rate of 0.6%. It is further indicated that Burundi experienced an increase from 1.7%-5.6% between 2016 and 2017 with a growth of 3.9%. Furthermore, Ethiopia moved from 0.7%-1.3% from 2017 with an increase of 0.6%. Moreover, in South Africa traditional contraceptive uptake rose from 0%-0.6% in 2016 with an increase rate of 0.6% (The United Nations, Department of Economics and Social Affairs Population Division, 2018). This means that there are young women who prefer to use the traditional form of contraceptives than the modern form of contraceptives.

In comparison to modern contraceptives, countries such as Burkina Faso, Ghana, Liberia, Niger, Senegal and Uganda experienced an increase between the year 2016

and 2017. The findings indicate that between 2016 and 2017, Burkina Faso slightly moved from 24.2%-24.5% with an increase rate of 0.3%. Furthermore, Ghana moved from 25.6%-27.4% in 2017 with an increase rate of 1.8%. On the other hand, Liberia experienced an increase from 19.1%-30.7% in 2016 with an increase rate of 11.6%. Moreover, Niger accelerated from 14.4%-18.1% in 2017 with an acceleration rate of 4%. In addition, Senegal progressed from 21.2%-23.1% from 2016-2016 with an increase rate of 1.9%. Lastly, Uganda moved from 32.2%-33.9% in 2017 with an increase rate of 1.7% (The United Nations, Department of Economics and Social Affairs Population Division, 2018). The abovementioned statistics prove that the majority of young women prefer modern forms of contraceptives than the traditional forms of contraceptives. The researcher finds it significant to unpack the various forms of modern contraceptives to provide an understanding in relation to available forms of contraceptives.

3.8 CATEGORIES OF CONTRACEPTIVES

There is a variety of contraceptives that young women can choose from depending on their own personal preferences. The Family Planning (2018); Robinson (2018:2); the Society of Obstetricians and Gynaecologists of Canada (2016:2) indicate different methods of contraception that are available. According to the Society of Obstetricians and Gynaecologists of Canada (2016:2), the different types of modern contraceptives include emergency contraception, hormonal contraception and non-hormonal contraception. Similarly, the Family Planning (2018) states that Long-Acting Reversible Contraception, hormonal contraception, barrier contraception, emergency, and permanent methods are the various types of contraception. In addition, Robinson (2018:2) noted that contraceptive methods have different categories by indicated that contraceptive methods range from hormonal medications, single-use barrier methods and long-acting reversible methods to prevent pregnancy. For better understanding the contraception methods will be grouped and discussed below.

3.8.1 Emergency contraception (PrEP)

Emergency contraception (EC) is a vital instrument in preventing unintended pregnancies and is now broadly available in most countries. Early regimens, described as the Yuzpe method, comprised of taking higher doses of oestrogen/progesterone combination oral contraceptives (Koyama, Hagopian & Linden, 2013:24). It is a

method of averting unwanted pregnancy resulting from unintended sexual activity, contraceptive failure or sexual assault, as well as from a lack of knowledge about or access to contraception. The basic aim of using EC is to reduce the need for abortions and the negative maternal health consequences associated therewith (Nibabe & Mgutshini, 2014). Furthermore, Dunn, Guilbert, Burnett et al. (2012) are of the view that EC refers to all methods of contraception that are used after intercourse and before implantation. EC has the potential to reduce the risk of pregnancy by 75% to 89%. It offers women the last opportunity to prevent pregnancy after unprotected intercourse. EC is important for outreach to the 4.5 million women at risk of pregnancy but not using a regular method by providing a bridge to use of constant contraceptive method (Trussell, Raymond, Cleland, 2007:1).

This contraception falls into four broad categories: combined (oestrogen and progestin), progestin-only (usually levonorgestrel), antiprogestin (ulipristal acetate or mifepristone), and intrauterine devices (IUDs) (Najera, 2016:20). Similarly, Trussell, et al. (2004:30) agrees that EC is divided into different categories. Trussell et al. (2004:4) state that EC “include emergency contraceptive pills (ECPs) both with and without estrogen, and copper-bearing intrauterine devices”. Like any other form of contraceptives, EC has its own *pros* and *cons*. EC has the potential to assist young women to prevent unintended pregnancies after engaging in unsafe sexual activities. This provides protection of destructive consequences of unplanned pregnancies. When used within 72 hours after sexual interaction, emergency contraceptive tablets have the potential to prevent pregnancy by 75% - 58% and, when used together with tintra-uterine contraceptive devices (IUCDs), offer as much as 99% of protection against unwanted pregnancies (Nibabe & Mgutshini, 2014:1).

3.8.2 Non hormonal contraception

The terms non-hormonal and barrier methods are used interchangeably in this section. Barrier birth control methods physically prevent the sperm from reaching the egg. Although condoms are the most common option, other methods are available, including sponges, cervical caps, diaphragms and spermicide (Healthline, 2018). Anderson (2018:1) is in agreement with the above author by reporting that “barrier methods, such as the condom, sponge, cervical cap, or diaphragm, spermicide, the copper IUD, and natural family planning are all hormone-free methods of birth control”. These methods provide a physical barrier by hindering movement of sperms into the

female reproductive tract, for example, female and male condoms and they have the potential to protect against sexually transmittable diseases (Mazuba 2013: 170). For example, young women who make use of female condoms prevent unintended pregnancies as well as sexually transmitted diseases. Barrier methods also have some disadvantages. For example, a condom may break or slip off during intercourse and this creates high chances of falling pregnant and contracting diseases (Health24, 2004).

3.8.3 Hormonal contraception

Another form of contraception that has the ability to prevent unintended pregnancies among women is the hormonal contraception. Hormonal methods of birth control (contraception) contain either oestrogen and progestin, or progestin only; they are a safe and consistent way to alleviate pregnancy for women. Hormonal methods “include an implant, an intrauterine device (IUD), injections, pills, a vaginal ring, and a skin patch” (Kaunitz, 2018:1). In agreement with the above author, the Institute for Quality and Efficiency in Health Care (2017:1) states that “there are a number of forms of hormonal contraception, including the birth control pill, the vaginal ring, the contraceptive skin patch and hormone-releasing contraceptive coils. Although they are used in quite different ways, they have a similar effect: They all influence women’s hormone levels, and most of them prevent pregnancy”. These are effective methods of preventing pregnancy. These contraceptive methods prevent overall pregnancy related concerns such as morbidity and mortality and improve infant and child health (Who, 2014:2). This implies that the use of hormonal contraceptives has a variety of advantages including preventing pregnancy and improving infant and child mortality.

Advantages of hormonal contraceptives include the fact that they are highly effective and their effects are reversible. They do not rely on spontaneity and are used in advance before sexual activity (Stoppler, 2018:1). For example, young women can insert an implant contraceptive that is not user dependent, which is 99% effective and lasts up to 3 years depending on the brand that is used (Planned Parenthood, 2018). After studying benefits and risks of hormonal contraception for women, Gorenoi, Schonermack and Hagen (2007:2) came to the conclusion that “in perfect use, hormonal contraceptives are classified as the most effective reversible contraceptive methods. For the individual decision concerning the use of hormonal contraception, benefits should be related to the additional risks”. For instance, alternative methods

such as implant contraceptives should be prioritized if perfect use appears to be a problem. Like any other form of contraceptives, hormonal contraceptives have disadvantages. According to the American Family Physician (2010:1509), hormonal contraceptive methods include side effects such as weight gain, headaches and mood swings. However, these side effects are not permanent, they will probably go away. The focus of this study is on the implant form of contraceptives that falls within hormonal contraceptives. In South Africa, the National Department of Health introduced implant contraceptives with the aim to expand the modern contraceptive method mix (Pleaner et al., 2017:933).

3.9 IMPLANT CONTRACEPTIVE UPTAKE AMONG YOUNG WOMEN

The United Nations, Department of Economics and Social Affairs Population Division (2018) indicates that implant contraceptive uptake has increased in African countries such as Burkina Faso, Ethiopia, Ghana, Kenya, Senegal and Zambia. Implant contraceptive uptake in Burkina Faso moved from 11.4%-11.8% between 2016 and 2017 with an increase rate of 0.4%. It is further indicated that Ethiopia progressed from 7.9%-8.3% in 2017 with an increase rate of 0.4%. Furthermore, Ghana rise from 6.6%-8.3% in 2017 with a rise of 1.7%. On the other hand, Kenya moved from 16.1%-18.1% in 2016 with an increase rate of 2%. Moreover, Senegal rose from 5.2%-7.1% in 2016 with an increase rate of 1.9%. In addition, Zambia moved from 5.0%-7.1% in 2017 with an increase rate of 2.1%. Wider availability of implant contraceptives could lead to better use in other African countries and elsewhere where implant contraceptives presently cannot be accessed broadly or easily (Jacobstein & Stanley, 2013:12).

After conducting a study in Tonga, Winn-Dix et al. (2016:118) found that 35% of young women were willing to use the implant contraceptives and 38% of young women were not willing to use while 27% was not sure whether they were willing to use or not. Winn-Dix et al. (2016:118) further indicate that those who were not willing to use implant contraceptives indicated the fear of side effects as the major reason. Similarly, a prospective cohort study among women in Kenya found that “contraceptive implants were a well-accepted option in a young Kenyan population that was initially seeking a short-acting method; uptake was favourable and the continuation rate was high” (Hubacher et al., 2011:10). The results further indicate that 97 (24%) of educated

women chose implant contraceptive and they wanted methods that can be effective for a long time (p value <0.05).

Contrary to these results, Funk et al. (2005:322) found that “out of 330 subjects who used ENG implant, a total of 161 subjects (49%) did not complete the entire 2-year study period. The most common reasons for discontinuation were bleeding pattern changes ($n=43$; 13.0%) and other types of AEs ($n=76$; 23.0%). One subject (0.3%) was withdrawn because of an intercurrent illness, 4 subjects (1.2%) were classified by the investigator as protocol violators, 8(2.4%) were unwilling to continue (reasons not divulged) and 29 (8.8%) were withdrawn for other reasons”.

Another study demonstrates that despite the effectiveness advantage offered by implant contraceptives, its promise has not been realised in South Africa. It is further indicated that the number of implant contraceptives inserted in the public sector has fallen from 175 000 in 2014/2015 to only 50 000 in 2016/2017, with declines noted in all provinces of the country. In addition, implant contraceptive uptake seems to be low in Mpumalanga, the Northern Cape and North West Province since the introduction of implant contraceptives (Rees, Pillay, Mullick & Chersich, 2017:939). However, the slow progress may be because implant contraceptives are relatively new in South Africa and because of that, mystery and uncertainty about implant contraceptives may have played a part (Stopes, 2015:1). For this study, health related messages about implant contraceptives can assist to remove the mystery and uncertainties attached to implant contraceptives.

3.10 BARRIERS TOWARDS IMPLANT CONTRACEPTIVE UPTAKE

This section provides a detailed discussion on various barriers that hinder young women from using implant contraceptives. It starts by providing literature based on limited awareness and knowledge about implant contraceptives. Common myths associated with implant contraceptive uptake form part of this section. It further discusses young women’s fear of side effects and providers’ attitude towards implant contraceptives.

3.10.1 Limited awareness and knowledge about implant contraceptives

As discussed in section 3.4.2 of this study, knowledge plays a crucial part to influence decision making towards contraceptive uptake. After conducting a qualitative study in

Kenya, Ochako et al. (2015:114) came to a conclusion that awareness and knowledge of implant contraceptives do not automatically translate to use. The study findings indicate that the majority of the participants were aware of contraceptives; knowledge on modern contraceptives was high. However, despite the high level of knowledge, use-particularly among young women-remained low. In a study conducted by Kumar and Brown (2016:4), it is revealed that awareness of LARC including implant contraceptive was low among young women. In 2006, a study of 190 women aged 14-25 years indicated that about 50% of the participants had heard of LARC's. Only 20% of the participants has heard of both IUDs and implant contraceptives; 58% were uncertain about method's effectiveness, and 71% were unsure about the methods' safety (Kumar & Brown, 2016:4). In other words, this means that even though young women were aware of the implant contraceptive they did not intend to use it due to their own reasons.

A descriptive cross sectional study conducted on knowledge, attitudes and utilization of sub-dermal birth control implants among married rural women of Pakistan, reveals that 14.2% of the respondents had good knowledge about birth control implants, 17.5% had average knowledge while 68.3% had no knowledge about implants as a choice of contraception (Mubarik et al., 2016:2232). Furthermore, Banafa, Al-Hanshi, Almuallim & Alkathiri (2017:35) indicate that only 2.1% of women had high knowledge about implant contraceptive side effects. Moreover, it is indicated that almost 99% of young women knew that implant contraceptive could be used for 3 years (Pillay et al., 2017:186).

3.10.2 Myths and misconception about implant contraceptives

Like any other form of contraceptives, there are myths and misconceptions attached to implant contraceptive use. Gueye, Speizer, Corroon and Okigbo (2015:191) conducted a study in Urban Africa. In each country, the contraceptive myths prevalent at personal and community levels are that "people who use contraceptives end up with health problems," "contraceptives are dangerous to women's health" and "contraceptives can harm your womb." On average, women in Nigeria and Kenya indicated that 2.7 and 4.6 out of eight selected myths, respectively, and women in Senegal indicated that 2.6 out of seven. Women's personal-level belief in myths is negatively related with their modern contraceptive use (odds ratios, 0.2–0.7).

In Ethiopia, Endriyas, Eshete, Mekonnen, Misganaw and Shiferaw (2018:98) came to the conclusion that family planning program implementers need to address fears, myths and misconceptions. The findings of this study indicate that participants agreed that side effects are the outcomes associated to myths and misconceptions related to implant contraceptives. It is further indicated that misconceptions and fear of side effects varied from less serious side effects (like weight gain) to more serious side effects associated to death of women due to implant contraceptive use.

In Kenyan study, Ochako et al. (2015:118) revealed that the main obstructions to modern contraceptive uptake among young women are myths and misconceptions associated with use. The findings show that the biggest fear was that the implant contraceptive method would cause infertility in young women. Similarly, a cross-sectional study indicates that in Kenya, Nigeria and Senegal women are in agreement with the statement that says contraceptives (implant contraceptive in this case) can cause infertility at a rate of 51.7% in Kenya, Nigeria 41% and Senegal 34% (Gueye et al., 2015:193).

Conversely, a study conducted by Nhlumayo (2017:86) revealed that respondents disagreed with all myths and misconceptions related to the use of LARCs. It revealed that in relation to LARC's such as implant contraceptives, participants indicated that they were not discouraged by myths and misconceptions to consider LARC use.

3.10.3 Side Effects of Use

In a study conducted in 35 low- and middle-income countries, Bellizzi, Sobel, Obara and Temmerman (2015:2) found that a total of 5559 (37.3%) did not use any contraceptive methods because of fear of side effects. In South Africa Nhlumayo (2017) found that side effects contribute to a high rate of users discontinuing use of implant contraceptives. A total of 71.4% stopped using implant contraceptives due to the side effects. During an interview conducted on 27 September 2016, Ms Nkosi (pseudo name) stated that lack of knowledge on various side effects related to using the implant contraceptive has turned her life into a disaster. She indicated that she has used an implant contraceptive for about nine months and due to the side effects that she was experiencing, she was forced to remove it. It took her more than three surgeries to remove the implant. She also provided a picture to prove her statement. See figure 1. Ms Nkosi's sentiments were echoed in several tweets in which women

mentioned their frustrations about the side effects of contraceptives and lack of having been given the correct information on starting use (Lubinga & Sitto, 2018).



Figure 1: Ms Nkosi's (pseudo name) arm after implant contraceptive removal (Photo by Manthata. M. with consent from the participant)

Side effects appear to vary from one individual to another. For simplicity, various studies that discovered different side effects will be deliberated below:

Steyn and Kluge (2010:502) revealed that 50% of young women experienced irregular or prolonged bleeding while using the implant contraceptives. Similarly, Pillay et al. (2017:819) showed that close to 90% of the participants ascribed to non-stop bleeding which caused them to discontinue using contraceptives. In addition, Meirik, Fraser and Arcangues (2003:52) came to the conclusion that “as with other progestogen-only methods, vaginal bleeding disturbances are the most common reason given for the discontinuation of implant use, accounting for up to 45% of all reasons in clinical trial settings”.

In Europe, “one meta-analysis that included 780 women evaluated bleeding over a total of 3315 reference periods of 90 days each during the first 2 years after etonorgestrel-releasing subdermal implant insertion, 22% were found to have amenorrhoea, 34% infrequent bleeding (<3 episodes of bleeding or spotting), 7% frequent bleeding (>5 episodes of bleeding) and 18% prolonged bleeding (1 bleeding episode lasting >14 consecutive days). Abnormal bleeding led to early discontinuation of the implant contraceptive in 10–14% of patients” (Mansour, Korver, Marintcheva-Petrova & Fraser, 2008:13)

Studies such as the Maryland Family Planning and Reproductive Health Program Clinical Guidelines (2012); Meirik et al. (2003) revealed that some of implant contraceptive users experience severe headaches. According to the Maryland Family Planning and Reproductive Health Program Clinical Guidelines (2012:5), at least 24% implant contraceptive users reported headache as an adverse event. On the other hand, Meirik et al. (2003:52) found that 30% of implant contraceptive users complained about headache. In South Africa, Pillay et al. (2017:819) found that 44% of the participants encountered headaches while using implant contraceptives.

Furthermore, a study on “non-menstrual adverse events during use of implantable contraceptives for women: data from clinical trials” revealed that weight gain is a common complaint among young women who use implant contraceptives ($4 \pm 22\%$), with reports of 0.4 to 1.5 kg per year, but cessation rates are less than 4% for this indication (Brache et al., 2002). Similarly, in South Africa it was also found that weight gain played a part on young women’s discontinuation of implant contraceptive use and 15% of the participants removed implant contraceptives due to weight gain (Pillay et al., 2017:819). On the other hand, the Maryland Family Planning and Reproductive Health Program Clinical Guidelines (2012) shows that a small number of 6.4% users gained weight after 1 year of implant contraceptive use.

Moreover, some studies indicate that breast tenderness is one of the side effects that implant contraceptive users encounter (Banafa et al. (2017); The National Department of Health (2012). A study conducted on “knowledge and attitudes about side effects of implanon (Implant) among women attending primary health centers in Al-Mukalla District, Yemen”, demonstrates that non-menstrual side effects comprised breast tenderness at the rate of 18.75% (Banafa et al., 2017:33). Similarly, The National

Department of Health has also documented breast tenderness as one of the common side effects associated with the use of contraceptive implants (National Department of Health, 2012: 32).

3.10.4 Provider's attitudes towards implant contraceptive use

Some studies indicate that healthcare providers' attitude towards implant contraceptive uptake has an impact on young women's decision to use it (Chilinda et al. (2014); Sieverding et al. (2017)). A systematic review on "attitudes of health care providers towards adolescent sexual and reproductive health services in developing countries" by Chilinda et al. (2014:1712) indicates that the healthcare provider's unprofessional attitudes towards young women who seek contraceptives have serious health consequences on the lives of young women. Interactions with healthcare providers can have an important influence on contraceptive uptake and method choice among young women (Sieverding et al., 2017:2).

In a study conducted by Mesfin, Bezatu, Gudina and Ayalu (2012) on "health workers' attitudes toward sexual and reproductive health services for unmarried adolescents in Ethiopia", it is revealed that the majority of healthcare providers had positive attitudes towards young women who seek contraceptives. In contrast, Ahanonu (2013:33) carried out a study based on "attitudes of healthcare providers towards providing contraceptives for unmarried adolescents in Ibadan, Nigeria". The study found out that many providers have negative attitudes towards unmarried adolescents who need contraceptives (Ahanonu, 2013:33). Ziyane and Ehlers (2006) indicate that health care providers' attitudes play a part in non-use of contraceptives by young women as they are denied access by being mocked.

A study conducted in South Africa by Chersich (2017:312), revealed that "in the public sector, more broadly, supply-side barriers include strong provider preferences for particular methods and staff with negative attitudes, e.g. towards young women requesting contraception. As a result, women largely make use of the public sector for healthcare services where they are offered a wider mix of methods". Moreover, despite the acceptance of healthcare providers' value in preventing unwanted pregnancies, uncertainties among healthcare providers towards implant contraceptives are evident (Wellings et al., 2007:213).

3.11 BENEFITS OF IMPLANT CONTRACEPTIVE UPTAKE

This section discusses literature about implant contraceptive benefits. It begins by providing a detailed discussion on the effectiveness of implant contraceptives. Furthermore, a discussion of implant contraceptives as a form of birth control that is not dependent on the user is deliberated in this section. In addition, the section provides a detailed discussion on the implant contraceptive as a form of birth control that offers long term and reversible benefit.

3.11.1 The effectiveness of implant contraceptives

Brand, Chelmow, Talavera and Rivlin (2014); Beaugureau and the Healthline (2018); Thomas (2017); Bhekisisa (2015) indicate that implant contraceptives are the most highly effective form of contraceptive among other available modern contraceptives. According to Brand et al. (2014), one of the benefits offered by the implant contraceptives is effective long-term contraception that does not depend on the recipient's daily compliance. Beaugureau and the Healthline (2018:1) allude to the implant contraceptive being one of the methods that have the highest levels of effectiveness among other contraceptives. Thomas (2017:1) proffers that implant contraceptives have high effectiveness of up to 99% within seven days of insertion. In addition, Bhekisisa (2015) agrees that implant contraceptives offer 99% effectiveness, adding, if implanted correctly.

The implant contraceptive is an exceptional method choice for women who are finds it difficult to remember to take a pill on daily basis, change a patch or ring as required or use other contraceptives such as condoms during the course of intercourse (Stoddard, McNicholas & Peipert, 2011:970). According to The American College of Obstetricians and Gynaecologists (2016:1), it was found that during the first year of typical use, women who became pregnant were fewer than 1 in 100 women while using implant contraceptives. However, when compared to other birth control methods over the long term, implant contraceptive methods are considered to be 20 times more effective than contraceptives. In addition, the implant contraceptive has also been found to be effective for up to 3 years with more than 99% of efficacy in a population of users (Adams, 2015:32).

“An integrated analysis of 11 international clinical trials in which 942 women were enrolled for 2–4 years, or a total of 20 648 cycles, showed no pregnancies while the

etonorgestrel-releasing subdermal implant was in place. However, there were six pregnancies that occurred during the first 14 days following the etonorgestrel-releasing subdermal implant removal. As the FDA requires that any pregnancies occurring within 14 days of cessation of a hormonal method of birth control be considered as possible method failures, the etonorgestrel-releasing subdermal implant has a resulting Pearl Index of 0.38 pregnancies per 100 women-years of use” (Darney, Patel, Rosen, Shapiro & Kaunitz, 2009:1646)

However, in a study conducted on “the pharmacodynamics and efficacy of implanon”, Croxatto and Makarainen (1998:96S) found out that among 1716 women who were using Implanon for 53,530 cycles, no pregnancies occurred while using Implanon implant contraceptives, resulting in a Pearl index of 0.0 (95% confidence interval, 0.00–0.09). Similarly, Croxatto, Urbancsek, Massai et al. (1999:978) indicated that “women were followed up every 3 months over the entire study period. The average age of the women was 29 years (range 18–42 years), of whom 83.5% had been pregnant in the past. No pregnancy occurred during treatment with Implanon®, resulting in a Pearl Index of 0 (95% confidence interval: 0.0–0.2)”. In addition, a study conducted among sexually active American young women indicated that total exposure to the implant contraceptive was 474 woman-years (6186 cycles), and 68% of subjects had at least 1 year of exposure. The findings further showed that no pregnancies occurred during the period of use (Funk et al., 2005:319).

3.11.2 Non-user dependent form of contraceptives

Implant contraceptives do not require user attention on a daily basis like other forms of contraceptives (The Family Planning (2018:2); NHS (2018); Thomas (2017). The Family Planning (2018:2) indicates that after inserting the implant contraceptive there is no need to think about contraception every day. Likewise, the NHS (2018:1) states that “implant contraceptives are very useful for women who find it difficult to remember to take a pill at the same time every day”. Furthermore, Thomas (2017) indicates that implant contraceptives are not dependent of user memory or schedule, and of sexual intercourse, as it provides continuous contraception. In addition, “once the method is inserted, no attention is required on the part of the user until the time for removal. Thus, the ENG implant is an excellent method choice for women who are unable to remember to take a pill daily, change a patch or ring as required or use other methods

of contraception at the time of intercourse” (Stoddard, McNicholas & Peipert, 2011:970).

In a South African study, Kluge and Steyn (2010:21) revealed that implant contraceptives are not user-dependent and have very low failure rates (less than 1%), which rival those with sterilisation. Implant contraceptives “combine reversibility with high effectiveness as they do not depend a great deal on compliance or correct use” (Kluge & Steyn, 2010:21). Similarly, the American College of Obstetricians and Gynaecologists (2016:1) found that IUD and implant contraceptives are the most effective forms of reversible birth control available. The findings further reveal that fewer than 1 in 100 women using an IUD or an implant contraceptive become pregnant due to its non-user dependent benefit.

3.11.3 Long term and reversible implant contraceptives

The implant form of contraceptives can offer long term and reversible benefits (The American College of Obstetricians and Gynaecologists (2016); The Centre for Young Women’s Health (2014:1); Stopes (2015). Implant contraceptives among other contraceptives are considered to be the best long-term method of birth control that protects against pregnancy from 24 hours to 3 years after insertion and can also be taken out at any convenient time (Center for Young Women's Health, 2014:1). Similarly, the American College of Obstetricians and Gynaecologists (2016) states that “implant contraceptives are reversible and if you want to become pregnant or if you want to stop using them, you can have them removed at any time”. Stopes (2015:1) proffers that using the implant is safe, simple, and convenient and women’s ability to fall pregnant returns quickly once you stop using it. In addition, after discontinuation of implant contraceptive use, ovulation returns within 3 weeks of implant removal in more than 90% of women. Women can be advised that there is no delay in return of fertility after implant contraceptive removal (Rowlands & Searle, 2014).

3.1 SUMMARY OF THE CHAPTER

This chapter has provided a detailed discussion based on contraceptives on a practical level. The issue of contraceptive uptake among young women has been deliberated in this chapter. The chapter examined factors that influence contraceptive use among young women. It further analysed the issue of contraceptive use as a choice.

Furthermore, the chapter deliberated on the issue of accessibility and affordability of contraceptives in South Africa. The two broad categories of contraceptives have been considered as part of this chapter. A detailed discussion on the uptake of implant contraceptives among young women, as the focus of the study has been provided. In addition, various benefits and barriers of implant contraceptive use formed part of this chapter. The next chapter discusses the theoretical framework of this study.

CHAPTER FOUR

THEORETICAL FRAMEWORK

4.1 INTRODUCTION

This chapter discusses the theoretical framework that guides the study. In this study, the Health Belief Model (HBM) and Theory of Planned Behaviour have been identified by the researcher to guide the entire study in relation to the study objectives and aim stated in Chapter one.

4.2 OVERVIEW OF THE HEALTH BELIEF MODEL

The HBM was originally formulated in the 1950s by social psychologists occupied at the U.S. Public Health Service to elucidate why individuals did not take part in public health programs such as TB (Tuberculosis) or cervical cancer screening (Rosenstock, 1974:328). The HBM is a cognitive interpersonal structure that views individuals as rational beings who use a multi-dimensional method to decision making concerning whether to execute a health behaviour or not (Hall, 2012: 76). The HBM was the first theory formulated with the aim to explain the process of alteration in relation to health behaviour (Tarkang & Zotor, 2015:1).

Furthermore, Mikhail (2001:162) indicates that the HBM explains health-related behaviour at the level of people's decision-making. The HBM was the first model used to envisage and clarify differences in contraceptive behaviour amongst women in the 1970s and 1980s (Hall, 2012: 75). Contraceptive behaviour is referred to as actions taken prior to sexual intercourse to prevent conception, using either prescription or non-prescription methods (Saulpaugh, 1993). Based on this background the researcher identified HBM as suitable in directing the study and as a perfect model for clarifying the factors that encourage women to accept or not to accept implant contraceptives as a preferred method of and/or to continue using them (Mohsen, El-Abbassy and Khalifa 2016: 56). In particular, the possibility of experiencing a health problem, the severity of the outcomes of that health problem, and the perceived benefits of a anticipatory behaviour, in amalgamation with its possible costs, are seen as the main beliefs that shape health related behaviour patterns (Abraham & Sheeran, 2015)

4.2.1 Constructs of the Health Belief Model

Since health motivation is the central focus, the HBM is a perfect fit for addressing problem behaviours that arouse health concerns. Constructs of the HBM offer a useful structure for designing both short-term and long-term behavioural alteration strategies (Glance et al., 1997:13). The five constructs of the HBM are used in this study, namely Individual perceptions (perceived susceptibility, perceived severity and perceived threat), modifying factors, perceived benefits, perceived barriers and cues to action (Janz, Champion & Strecher, 2002). HBM concepts interact to encourage contraceptive behaviour. For instance, perceived threat of pregnancy has turned into a more accurately defined in relation to other concepts. Perceived threat of pregnancy can relate with cues to action, perceived benefits and barriers, and psychological modifying factors (Hall, 2012:80). In association to the study, the HBM predicts that for a young woman to be encouraged to use the implant contraceptives, an individual has to perceive herself to be at risk or vulnerable to unintended pregnancies (perceived susceptibility), that an unintended pregnancy has possible serious outcomes (perceived severity), and comprehend that destructive consequences of unintended pregnancy are preventable through use of effective contraceptives such as implant contraceptives (perceived benefits) (Mohsen, El-Abbassy & Khalifa 2016: 56). Figure 2 reflects constructs of the HBM.

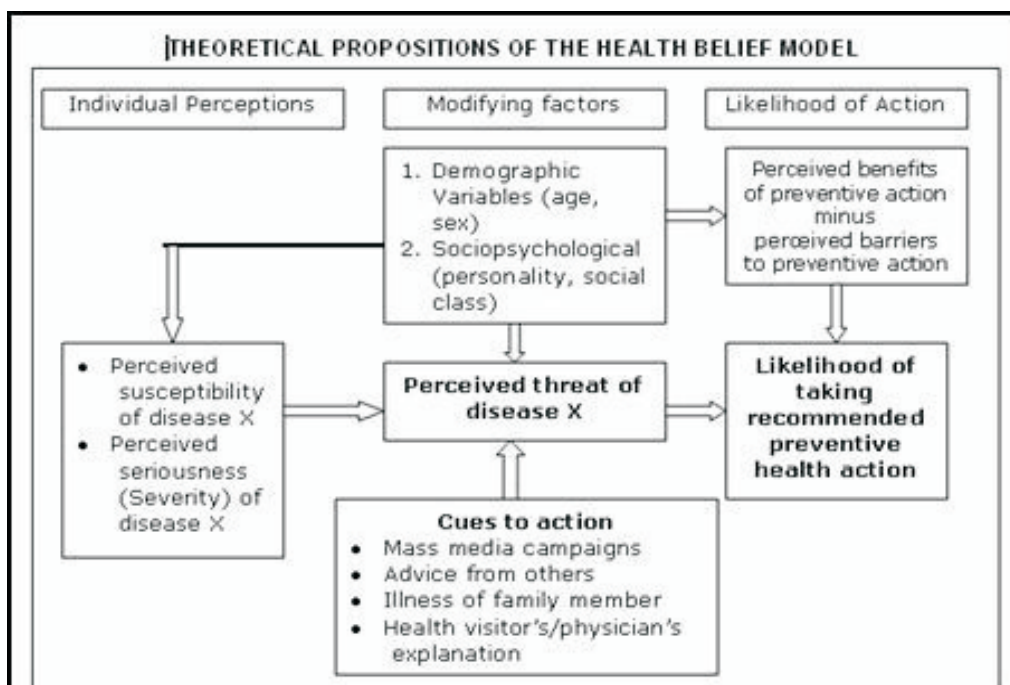


Figure 2: Health Belief Model (Janz, Champion & Strecher, 2002)

4.2.1.1 Individual perceptions

Individual perception is the process through which an individual becomes aware of a particular situation and interprets it in a manner that suits his or her frame of reference (Moster, 2009:49). Similarly, Tarkang and Zotor (2015:3 -4) refer to individual perception as individual's belief about their own vulnerability to a disease and the seriousness with which individual views the perceived threat of the condition. Individual concern relates to young women's beliefs about their susceptibility of the consequences of teenage pregnancy and perceived severity of the teenage pregnancy (Janz, Champion & Strecher, 2002).

Perceived susceptibility

Young women's susceptibility towards unintended pregnancies influences their intentions to avoid the consequences of the situation. Frewen, Schomer and Dunne (1994:39) refer to perceived susceptibility as "an individual's perception of the degree of his/her susceptibility to a health condition". On a similar view, the National Institute for Health and Clinical Excellence (2007:3) shows that perceived severity is "the subjective perception of the risk the individual is at from a state or condition". Tarkang and Zotor (2015:5) are of the notion that "perceived susceptibility defines an individual's beliefs about the chances of contracting a health condition". If young women believe that they are at risk of unintended pregnancy, they will indicate an intention to avoid the teenage pregnancy, thereby choosing to use implant contraceptive or any other form of contraceptive. However, those who do not believe that they are at risk will not show any intention to avoid pregnancy.

Perceived severity

In the HBM, it is assumed that after a person has identified himself/herself as vulnerable to the situation, he/she would perceive the severity of the condition as serious, which would make the person think of the outcomes thereafter (Mohsen, El-Abbassy & Khalifa 2016: 58). Perceived severity refers to "negative consequences that individuals associate with an event or outcome. These consequences may relate to an anticipated event that may occur in the future or to a current state such as a pre-existing health problem (National Institute for Cancer, 2008:1)". Similarly, the Resource Center for Adolescent Pregnancy Prevention (2007) defines perceived severity as "one's belief of how serious a condition and its consequences are". On the other hand, Cromer & McCarthy (2000:292) view perceived severity as the amount of

concern at the thought of glitches related with contraceptives, such as absence of menstruation in implant contraceptive users or nausea and vomiting among users due to contraceptives. If young women believe in the consequences of teenage pregnancy, they will think about those consequences and make the right decision towards contraceptive use.

4.2.1.2 Perceived threat

Hall (2012:3) indicates that perceived threat (susceptibility and seriousness) of an unwanted pregnancy and its outcomes such as birth, abortion and parenthood offers the incentive to use contraception. Similarly, Hiltabiddle (1996:63) states that “perceived threats to health actions include phobic reactions, physical and psychological barriers, accessibility factors and even personality characteristics”. In addition, Conner and Norman (1996:25) indicate that perceived threat towards implant contraceptive uptake depends on two beliefs: perceived susceptibility to teenage pregnancies and anticipated severity of the consequences of teenage pregnancy. Furthermore, Hall (2012:3) shows that this construct considers young women’s “feelings of the seriousness of becoming pregnant, based upon subjective assessment of medical and social consequences of pregnancy and childbearing”.

4.2.1.3 Modifying factors

According to Hall (2012:76), modifying or enabling factors interact with people’s perceptions of pregnancy and decision-making to encourage contraceptive use. Similarly, Hayden (2013:57) views modifying factors as one’s personal factors that affect whether the new behaviour is accepted or not. Hall (2012:76) further indicates that HBM features such as age, ethnicity, personality, and psychological, socio-economic knowledge, cultural and educational level are related with behaviour alteration when there is a perceived threat. Young women’s behaviour towards implant contraceptive uptake will be influenced by enabling factors when they view teenage pregnancy as a threat.

4.2.1.4 Perceived benefits

The National Institute for Health and Clinical Excellence (2007:3) views perceived benefits as the subjectively understood constructive benefits of performing a health action to counterbalance a perceived threat. This perception will be influenced not only by particular proximal aspects, but one’s overall ‘health motivation’. Likewise, Tarkang

and Zotor (2015:5) define perceived benefits as individual's beliefs in the effectiveness of the recommended action to decrease the risk or seriousness of impact. In addition, the Resource Centre for Adolescent Pregnancy Prevention (2007) indicates that perceived benefits are "one's belief in the tangible and psychological costs of the advised behaviour". Young women's belief that using contraceptives will assist to avoid teenage pregnancy will influence them to take action. It is this belief that gives individuals self-confidence to take action because of the predictable outcomes (Resource Centre for Adolescent Pregnancy Prevention, 2007).

4.2.1.5 Perceived barriers

Perceived barriers are the perceived negatively valued factors of performing the action, or overcoming the predicted barriers to taking it (National Institute for Health and Clinical Excellence, 2007:3). Similarly, Hall (2012:77) views perceived barriers as the negative outcomes of using contraceptives. This aspect includes factors such as perceived side effects of hormonal contraceptives, physiological risks of hormonal contraceptives, inconvenience and limited access to various contraceptive methods. Furthermore, Mohsen, El-Abbassy and Khalifa (2016:58) state that this construct considers an individual's perception of the influences that enable or discourage the acceptance of the promoted behaviour. Moreover, it comprises factors such as perceived side-effects, physiological risks, inconvenience (i.e. having to remember to take a daily pill), and the limited access to various contraceptive methods or requiring a medical procedure for intrauterine device. In this study, the belief on benefits of complying with contraception information must outweigh challenges of complying with contraception information. For example, young women who believe that contraceptives are too expensive (barrier) but realize that without taking contraceptives they will fall pregnant and be unable to participate in economic activities might comply to contraception information (Onoruoiza, Musa, Umar & Kunle. 2015:15).

4.2.1.6 Cues to action

Cues to action are "internal and external stimuli that trigger a consciousness of the perceived pregnancy threat and facilitate consideration of using contraception to remedy the threat" (Hall, 2012: 4). On a similar view, Tarkang & Zotor (2015:5) state that cues to action involve a person's feeling about the wish to perform the necessary action after believing that a person has the ability to do so. Furthermore, the Resource

Centre for Adolescent Pregnancy Prevention (2007) views cues to action as tactics to activate "readiness". According to Janz and Becker (1998:11), specifically "what constitute cues to action and how they affect behaviour still needs intensive investigation. The use of mass media or other exposure to information from contraceptive providers might be influential in urging young women to use a recommended effective contraceptive practice". In this study, health education on LARC methods such as implant contraceptives from clinics, media information, and contraceptive methods awareness campaigns will be considered as factors that influence young women to take action towards implant contraceptive uptake (Hall, 2012: 76). .

4.3 OVERVIEW OF THEORY OF PLANNED BEHAVIOUR

The TPB envisages a person's intention to perform in behaviour at a particular time and place. It suggests that people's behaviour is motivated by behaviour intentions, where behaviour intentions are a purpose of three determinants: an individual's attitude toward behaviour, subjective norms, and perceived behavioural control (Ajzen, 1991). According to LaMorte (2018), the TPB has been used effectively to predict and clarify an extensive range of health behaviours and intentions comprising smoking, drinking, health services utilization, breast-feeding, and substance use, among others. The TPB states that behavioural attainment depends on both motivation and ability. In this study, TPB is used to envisage young women's behaviours and intentions to use implant contraceptives. Four concepts of the TPB used in this study comprise attitude towards behaviour, perceived behavioural control, subjective norm and behavioural intention. Figure 3 reflects the TPB constructs.

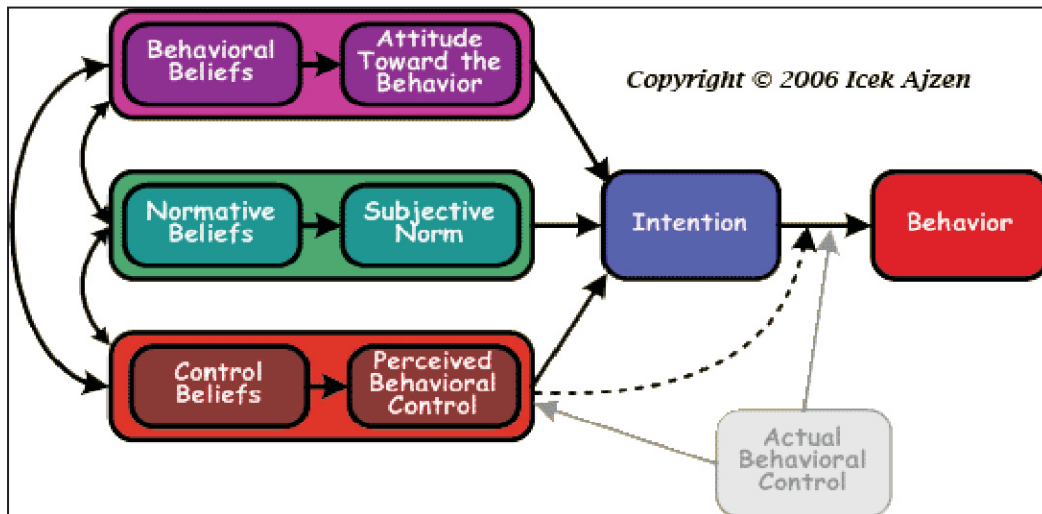


Figure 3: Constructs of the TPB (Source: Ajzen, 2006)

4.3.1 Constructs of the Theory of Planned Behaviour

4.3.1.1 Attitude towards behaviour

The attitudinal component refers to individual's attitude towards taking action of the behaviour under consideration (Ajzen & Fishbein, 1980). People's possibility of performing a given behaviour will be strong if they embrace a positive attitude towards acting upon the behaviour. For this study, young women would use the implant contraceptive expecting the positive outcomes such as prevention of pregnancy.

4.3.1.2 Perceived behavioural control

According to Ajzen (1991), a person's likelihood to disposition behaviour depends on the degree of availability of associating resources and existence of predictions to behave in that manner. He also stated that it is the judgement of the behavioural control which is more significant than the real control. Young women's behavior towards implant contraceptive uptake is strongly motivated by their confidence in their capability to access and use the implant.

4.3.1.3 Subjective norms

According to Teye-Kwadjo (2014:59), "norms derive from normative beliefs and refer to people's perceptions of what important individuals in their life (such as friends, sex partners, teachers, pastors, or parents) approve of and would naturally expect them to engage in, all things being equal". If young women have a belief that their friends, family and sex partners approve the use of contraceptives, they may be influenced to

take action. This includes what others think about the recommended behaviour and whether individuals think that important people accept or criticize the recommended behaviour. For example, health care facilitators may have motivated individuals to use implant contraceptives, and this will positively encourage young women's intentions to use. Young women may also feel disapproval of contraceptive non-use by others, further strengthening the need to use (Tanzi, 2012:1)

4.3.1.4 Behavioural intentions

Intentions are assumed to “capture the motivational factors that influence a behaviour; they are indications of how hard people are willing to try, of how much an effort they are planning to perform a behaviour” (Ajzen, 1991:181). Young women will show intentions to use or not to use the implant contraceptive, depending on their motivational factors such as the benefits and risks of implant contraceptive use.

The HBM model and TPB are applicable to this study because the key aim of the study is to explore factors that could influence young women's intentions to use implant contraceptives. The use of HBM has proved to be successful in raising women's awareness of contraceptives. Hence, it can lead to altering the health beliefs about contraceptives (Mohsen, El-Abbassy and Khalifa, 2016:64). On the other hand, this has proved to be effective in predicting and clarifying an extensive range of health behaviour and intentions (LaMorte, 2018).

4.3 SUMMARY OF THE CHAPTER

This chapter discussed the HBM and TPB as the theoretical framework of this study. The various constructs of the HBM and TPB have been examined in this chapter, specifically in relation to how they apply to the study. The next chapter analysis the research methodology of the study.

CHAPTER FIVE

RESEARCH METHODOLOGY

5.1 INTRODUCTION

This chapter describes the research design that was used in the study and the population from which the sample of the study has been drawn. It outlines the selection criteria for the target population, the data collection tools and procedure, ethical considerations and data analysis procedures. The study explored the uptake of implant contraceptives among young women at secondary schools located in the Limpopo Province. Data were analysed using the SPSS version 26.

5.2. RESEARCH OBJECTIVES

- x To investigate whether the exposure to health communication messages about implant contraceptives could influence the intentions of young women to use them.
- x To establish benefits of implant contraceptives among young women.
- x To determine the perceived risks of implant contraceptives among young women.
- x To assess intentions to use implant contraceptives by young women

5.3 RESEARCH METHOD

This study adopted a quantitative research approach. Quantitative research explains phenomena by gathering statistical data that are analysed using mathematically based approaches (Aliaga & Gunderson, 2000). Quantitative research method is used to measure the amounts and quantities of one or more variables using the accepted measures of physical world or psychological characteristics or behaviours, such as questionnaires or rating scales (Babbie & Mouton, 2001). Quantitative research approach “is used to quantify the problem by way of generating numerical data or data that can be transformed into useable statistics. It is used to quantify attitudes, opinions, behaviours, and other defined variables and generalise results from a larger sample population” (Wyse, 2011:1). Bless et al. (2013:15) proffer that “quantitative methods emerged from the philosophical belief that the world runs according to the

natural laws and the role of the scientist is to uncover or to discover this pre-existing laws”.

This method intends to create, approve, or authenticate relationships and develop generalizations that can make contribution to theory (Leedy & Ormrod, 2001:102). The quantitative research method enables the researcher to collect data in order to measure frequencies and attempts to remain unbiased (Bless et al., 2013:16). The quantitative method was appropriate to the study because it is exploratory nature. Therefore, empirical findings are likely to provide the numeric data needed to give the necessary foundational information to the issue.

5.4 RESEARCH DESIGN

This study is exploratory in nature. In exploratory research, the aim is to gather new information about a topic that has never been researched before (du Plooy-Cilliers, Davis & Bezuidenhoud, 2014:12). They further state that it is research that has an overall purpose of exploration, which usually entails the study of an unknown area (du Plooy-Cilliers, 2014:75). For example, this study gather information on young women’s intentions to use implant contraceptives as a tool to alleviate unwanted pregnancies.

The study adopted the experimental research design. Leedy (1997:232) states that experimental design is the “blueprint of the procedure that enables the researcher to test his hypothesis by reaching valid conclusions about relationships between independent and dependent variables”. Similarly, Key (1997:1) views experimental design as “a blueprint of the procedure that enables the researcher to test his hypothesis by reaching valid conclusions about relationships between independent and dependent variables”. On the other hand, Kirk (1995:1) indicates that an experimental design is a strategy for allocating experimental units to treatment levels and the statistical analysis allied with the design.

The basic intent of experimental design is to access the influence of an intervention on an outcome. In the process, the researcher also attempts to control other factors that might have effect on the findings (du Plooy-Cilliers et al., 2014:160). It is further indicated that experimental designs encompass manipulating a definite condition or set of conditions. This condition or set of conditions refers to the independent variable. Once the experiment has been carried out, the researcher measures the influence

that the alteration to the independent variable has had on certain results, called the dependent variable (du Plooy-Cilliers et al., 2014:161). By definition, the independent variable is a variable that is presumed to have an influence on another variable and dependent variable is quite simply, dependent, in a way that it depends on an independent variable (Flannelly, Flannelly & Jankowski, 2014). On a similar notion, Leroy (2011:30) views the independent variable “as treatment or intervention and signifies a causal event that is under investigation”. Furthermore, Leroy (2011:32) contends that “a dependent variable is called an outcome or response variable and represents the outcome of a treatment”. For this study, dependent variables include the barriers, benefits and the intention to use implant contraceptives and the independent variable of this study is the exposure to implant contraceptive messages.

Experimental designs provide the best approach available to enable researchers to investigate causality because of its high degree of control (Beaumont, 2009:8). However such strict control is allied with its own complications. Subjects are always both randomly assigned into various groups and randomly designated (Beaumont, 2009:8). Similarly, Leedy and Ormrod (2013:244) state that in experimental designs greater validity is maintained as it offers greater degree of control. In this study, the researcher has randomly selected two groups of young women from secondary schools and divided them into two groups. Each group was exposed to implant contraceptive messages in the form of posters and the other group was not exposed to the poster message.

According to Bless et al. (2013:147), the group that does not receive treatment is the control group and the one receiving treatment is the experiment group. For this study, the group that did not receive the implant contraceptive poster message was the control group while, the group that was exposed to the implant contraceptive poster message was the experiment group. Both groups were requested to complete the same questionnaire. This design has assisted the researcher to predict whether young women could be willing to use implant contraceptive if they were to be exposed to implant contraceptive messages or not. According to Leedy and Ormrod (2013:226), experimental design enables the researcher to consider many possible factors that might influence a particular condition. The experimental design was relevant to this study because the study is explanatory in nature.

5.5 POPULATION

The population of this study was secondary school young women aged 18 years and above from the Mankweng Circuit in Polokwane. Polit and Hungler (1999:37) define the concept population “as an aggregate or totality of all the objects, subjects or members that conform to a set of specifications”. On the other hand, Alvi (2016:10) refers to population as all members who meet the particular criterion specified for research investigations. While Mugo (2002:1) refers to population “as a group of individuals, objects, or items from which samples are taken for measurement, for example a population of students”. Thus, the target population defines those units from which the results of the study are destined to generalise (Lavrakas, 2008:1). Mankweng has 12 secondary schools and the researcher randomly selected six schools. Young women were relevant for this study because they are at a high risk of experiencing unintended pregnancies.

5.6 SAMPLING

The researcher selected a sample size of 306 secondary school young women. The researcher used the Raosoft sample calculator to calculate the sample of this study. The Raosoft sample calculator was used because the population size was not provided. Sampling is the act, process, or technique of selecting a suitable sample, or a representative part of a population for the purpose of determining parameters or characteristics of the whole population (Mugo, 2002:1). Sampling involves the selection of a number of study units from a defined study population (Phrasisombath, 2009:3).

As a result, purposive and simple random sampling methods were used for this study. Six schools were randomly selected to participate in the study. Young women aged 18 years and above were purposively selected from the secondary schools. All young women who were aged 18 and above who were present at the time of data collection had a fair chance of participating in this study. Among the 12 secondary schools in Mankweng Circuit, the sites that were visited for data collection were Hwiti, Ditlalemeso, Makgongoana, Marobathota, Mamabudusha and Ramashobohle Secondary schools.

5.7 DATA COLLECTION

5.7.1 Data collection instrument

Data was collected through a self-administered questionnaire which was constructed in English to accommodate all participants regardless of their home languages. The aim and objectives of the study guided the development of the questionnaire.

The questionnaire consisted of four sections using a five point Likert Scale of closed questions, ranging from strongly agree to strongly disagree. Some open-ended questions were included in order to solicit explanations to some of the questions. Section A of the questionnaire consisted of closed-ended questions that entailed the demographical data of the participants. Section B consisted of both closed and open-ended questions related to the first objective of the study that assessed whether the exposure or awareness of implant contraceptives could influence young women's intentions to use implant contraceptives. Section C of the questionnaire also consisted of likert-scale questions that assessed young women's perceptions of benefits and risks associated to implant contraceptives. Lastly, section D included both closed and open-ended questions related to the last objective of the study that assessed young women's intentions to use implant contraceptives.

5.7.2 Data collection technique

Data was gathered through a self-administered questionnaire. The researcher chose to use self-administered questionnaires because they guarantee anonymity and privacy of respondents thereby encouraging truthful replies. Leedy and Ormrod (2001) indicate that people are more truthful while answering to surveys concerning provocative matters in specific because their answers are nameless. But, the questionnaire also has disadvantages, because surveys are often not returned to the researcher and this may adversely affect the initially envisaged sample (Leedy & Ormrod, 2001).

The researcher approached the Provincial Department of Education and Mankweng Circuit for permission to collect data from the secondary schools. Permission was granted by both institutions. The researcher visited various secondary schools under the Mankweng Circuit to participate in the study. Willing schools granted permission together with the dates and times for data collection. The researcher went to the selected schools on the given dates, purposively selected young women aged 18

years and above. Young women were divided into two groups in order to differentiate between the control group and the experiment group.

The researcher was assisted by the research assistants to distribute questionnaires and attend to concerns from the respondents such as question clarification but not to assist with completion of the questionnaire. The control group was given questionnaires and was given the research instructions before they could start answering the questionnaire. The experiment group was given the implant contraceptive poster message and they were given 10 minutes to go through the poster individually. The participants were given instructions on how to complete the questionnaire. The researcher marked the questionnaires which were given to the experiment group with a letter E to distinguish them from those which were given to the control group. The whole process took approximately 20-25 minutes for the control group and 30-35 minutes for the experiment group. The researcher managed to distribute 306 questionnaires and all questionnaires were completed and returned by the participants. The researcher collected all questionnaires from the respondents after completion and kept them safely in a sealed box.

5.8 DATA ANALYSIS

Statistical Package for Social Sciences (SPSS) version 26 was used to analyse the responses of this study. SPSS is a set of programs for manipulating, scrutinising, and presenting data; the set is generally used in social and behavioural sciences (Landau & Everitt, 2004:1). SPSS is used to “take data from almost any type of file and use them to generate tabulated reports, charts, and plots of distributions and trends, descriptive statistics and conduct complex statistical analysis” (Mukul, 2011:142).

The researcher validated, edited, coded and cleaned the data before analyses. Marshall and Rossman (1999:150) refer to data analysis as the process of creating order, construction and meaning to the mass of collected data. Data analysis encompasses systematic organization and amalgamation of research data and, in quantitative studies encompasses the analysis of the hypotheses through those data (Polit & Beck 2012:725). Data analysis is a crucial process of research that provides the researcher with the findings of the study.

A statistician assisted the researcher with the reduction and analysis of the data, using SPSS version 26. Descriptive statistics were used to define basic features of the data in the study. ANOVA test was applied to test variances between the barrier group and the benefit group and their association. Furthermore, the t-test was carried out to test the significance between the means of the dependent variables (barriers, benefits and the intention to use implant contraceptives) and the independent variable (exposure to implant contraceptive poster message). Moreover, the cross tabulation test was applied to test the variances between the control group and the experiment group. In addition, the Chi-square goodness fit test was used to test alternative hypothesis and the null hypothesis of the study. The research findings are presented with tables, charts and graphs for better understanding.

5.9 ETHICAL CONSIDERATIONS

Ethics were vital for the fruitful achievement of this research work. This also helped to decrease research faults that could have arisen because other people who were supposed to be part of the research were excluded or refused to participate.

5.9.1 Permission for the study

Permission to undertake this study was permitted by the University of Limpopo Research Ethics Committee. Furthermore, the Provincial Department of Education, Mankweng Circuit Manager and the principals of the schools where data were collected, also granted the permission. Burns and Grove (2001:261) “emphasise that when human beings are used as subjects, researchers should ensure that participants’ rights are observed and respected.” The researcher collected data from the participants with their permission and ensured that they respected and honoured participants’ rights throughout the process.

5.9.2 Anonymity and informed consent

Anonymity is concerned with keeping participants unknown in relative to their contribution in the study (Brink, 1996). According to Muñoz and Fortes (2008), autonomy is “related to freedom of choice, and corresponds to the ability of an individual to decide for themselves based on the alternatives presented to them, free of internal and external constraints”. For this study, respondents were encouraged not to mention their names on the questionnaire for the sake of privacy. The

researcher encouraged voluntary participation among the respondents. Furthermore, respondents were informed about the aim of the study and its importance. Those who were willing to take part voluntarily were given consent forms to indicate their approval in the form of writing (by signing the consent form). Consent forms were only given to young women aged 18 years and above.

5.10 RELIABILITY AND VALIDITY

In this study, the researcher conducted a pilot study to make sure that young women understood the questionnaire very well. The pilot study was piloted in order to verify the reliability and validity aspects of the research tools. The researcher visited Mountain View secondary school to conduct a pilot study. The researcher distributed 20 questionnaires to 20 young women who were grouped into two groups (control and experiment groups). Each of the two groups were given 10 questionnaires to complete. The questionnaire which was distributed to the experiment group was marked with the capital letter “E” to make it easier to distinguish from the ones that were distributed to the control group. Participants from the experiment group completed all the questionnaires and only one participant from the control group did not answer all the questions. The results from the pilot study assisted the researcher to test the reliability and validity of the research tool. However, the results obtained from the pilot study were not included in final results of the study because this was a process of refining the questionnaire. According to Tavakol and Dennick (2011:53), reliability and validity are significant concepts in research as they are used for improving the precision of the assessment and evaluation of a study.

Reliability implies the fact that something is consistent, for instance if an act can be repeated more than once and it is found that the results of the act remain the same, therefore such results may be considered as reliable. By definition the term reliability refers to “an indicator that provides information about the uniformity of a test when repeated measures are conducted (Spencer, Bornholt & Ouvrier, 2003:5)”. On a similar view, Joppe (2000:1) states that reliability is the extent to which the study outcomes are consistent over and an accurate representation of the total population under the study and if the findings of the study can be repeated under a same methodology, then the research tool is considered reliable. In view of Blumberg et al.

(2005), reliability refers “to a measurement that supplies consistent results with equal values”.

Inter-rater or inter-coder reliability was used in this study, which allows the researcher to use different participants but with the same method, tool or instrument that was administered during the pilot study (du Plooy et al., 2014:255). In this case, the researcher used Mountain View secondary school learners for the pilot study and used the same method, tools and instrument to collect data at other schools. The results from Mountain View secondary school did not form part of the final research findings.

The internal reliability was measured with Cronbach’s Alpha. The results indicate that the alpha coefficient for eight items is .552, suggesting that the items have relatively average internal consistency. According to University of Virginia Library (2015), the Cronbach’s Alpha coefficient of 0.5 is considered acceptable. The Cronbach’s Alpha of this study is more than 0.5 therefore the internal reliability of this study is acceptable. The results are presented in Table 1.

Table1: Cronbach’s Alpha for All Variables

| Reliability Statistics | | |
|------------------------|--|------------|
| Cronbach’s Alpha | Cronbach’s Alpha Based on Standardized Items | N of Items |
| .552 | .548 | 8 |

The inter-item correlation for all variables is 0.132. As a result, if the mean for inter-item correlation is more than the required 0.3 the results are considered to be reliable. See Table 2.

Table 2: Inter-Item Correlations of Variables

| Summary item statistics | | | | | | | |
|-------------------------|-------|---------|---------|-------|-----------------|----------|-------|
| | Mean | Minimum | Maximum | Range | Maximum/Minimum | Variance | Items |
| Item Means | 2.952 | 2.621 | 3.716 | 1.095 | 1.418 | .188 | 8 |
| Inter-Item correlation | .132 | -.045 | .280 | .325 | -6.158 | .005 | 8 |

This study has ensured validity. Validity is defined as the “extent to which a concept is accurately measured in a quantitative study” (Heale & Twycross, 2015:66). According to Le Comple and Goetz (1982:32), research validity is concerned with the precision and credibility of scientific results. For this study, the researcher explored whether practical changes in the dependent variables actually relate to variations in the independent variable. Thatcher (2010:125) views validity as the “extent to which any measuring instrument measures what it is intended to measure”.

Internal validity is concerned with the question about whether the research design has omitted all other feasible hypotheses that could clarify the difference of the dependent variable (Bless et al., 2013:131). The internal validity of research is positioned in accurate conclusions that are drawn from the collected data and to the extent to which results showed cause and effect (Leedy & Ormrod, 2013:97). Internal validity was ensured by consulting the statistician to evaluate the internal validity of the questionnaire. The questionnaire answered all the objectives of the study.

External validity is defined as “the extent to which the research findings based on a sample of individuals or objects can be generalized to the same population that the sample is taken from or to other similar populations in terms of contexts, individuals, times, and settings” (Lavrakas, 2008:1). In view of Calder, Phillips and Tybout (2014:240), the concept of external validity inspects whether or not an observed causal relationship should be generalised to and across various measures, individuals, situations and periods. However, the external validity of the study was low. This is because the number of participants was high but they were few relative to the whole province. In addition, they are located in a rural province; hence the results may not be generalisable to all South African young women in the country.

5.11 SUMMARY OF THE CHAPTER

This chapter dealt with the research design that had been followed in this study, addressing the population, sampling procedure, data collection technique/ instrument and data collection procedure. Ethical concerns which could have impacted on the study were attended to. Measures were adhered to in order to enhance the validity

and reliability of the research results. The next chapter provides the results of this study.

CHAPTER SIX

ANALYSIS AND PRESENTATION OF THE RESULTS

6.1 INTRODUCTION

The results of this study are presented based on the study objectives. Questions asked through self-administered questionnaire assists the researcher to answer the study objectives. Furthermore, the results are presented based on the hypothesis of the study. This chapter starts by presenting results based on demographical information of the participants. It provides results based on the first objective of the study. Furthermore, presentation of the results related to the second objective are presented. Moreover, the chapter provides results based on the third objective and the fourth objective of the study. In addition, results based on the study hypotheses are presented.

6.2 RESULTS AND DISCUSSIONS

The results presented in this chapter accrue from data collected from a sample size of 306 respondents and this number is taken as the best representation of the selected population of female learners at the selected secondary schools. Data was collected using a self-administered questionnaire. The collected data was analysed and interpreted in order to answer the study objectives and hypotheses. The upcoming sections focus on presentation of the main results, which are reported and illustrated by means of charts, graphs and tables. The results are also matched to the existing practical evidence to evaluate uniformity.

6.2.1 Statistical software

Data was analysed using SPSS version 26. Data was cleaned before it was coded into the SPSS. Different tests were conducted in order to answer the study objectives and hypotheses. Descriptive statistical analysis was used to identify frequencies and percentages to answer the questions in the questionnaire. Data is summarized and presented by making use of descriptive statistics, ANOVA, T-tests, crosstabulation and Chi-square.

6.2.2 Demographical information

Descriptive analysis was used to analyse the biographical details of the participants. Results indicate that of the 306 female learners 56%, (n= 170) were aged 18 years, 43%, (n=131) were aged 19 years and only 1%, (n=5) accounts for participants aged 20 years.

The results show that 0.7%, (n=2) of the participants were attending Grade 8, 2%, (n=6) of the participants were from Grade 9 and 5%, (n=14) of the participants were Grade 10 learners. Participants from Grade 12 account for 21%, (n=65) while Grade 11 accounts for 72%, (n=219). Participants from Grade 11 were the majority participants of the current study. The high number of participants from Grade 11 makes the results of this study relevant because the curriculum at secondary school introduces learners to the reproductive health system and contraception in life science in that grade. Hence, a study on knowledge and awareness of contraceptives would apply.

Results obtained from young women with regard to their level of exposure on contraceptives messages in general are presented in figure 4.

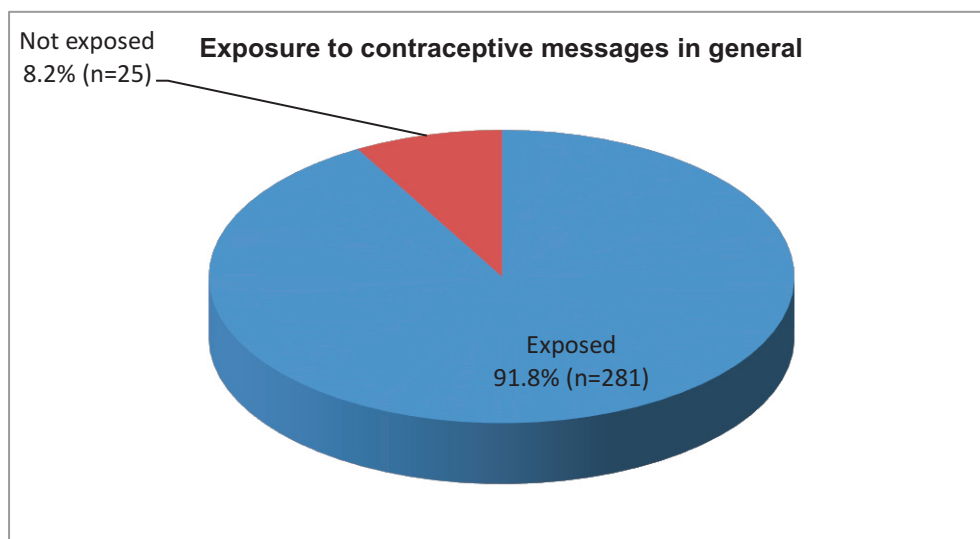


Figure 4: Exposure to Contraceptive Messages in General (n=306)

Participants were required to indicate their level of awareness on various modern contraceptive methods. The results obtained from this question are reflected in Table 3.

Table 3: Modern Contraceptive Awareness (n=306)

| Contraceptive method | Aware of the method | Unaware of the method |
|--------------------------------|----------------------------|------------------------------|
| Birth control pill | 89.5% (n=273) | 10.5% (n=33) |
| Birth control injection | 96.7% (n=296) | 3.3% (n=10) |
| Male condom | 97.1% (n=297) | 2.9% (n=9) |
| Female condom | 93.1% (n=285) | 6.9% (n=21) |
| Intrauterine device | 10.5% (n=32) | 89.5% (n=273) |
| Diaphragm | 6.2% (n=19) | 93.8% (n=27) |
| Emergency pills | 22.2% (n=68) | 77.7% (n=237) |
| Implant contraceptive | 65.4% (n=200) | 34.6% (n=106) |

The participants were further required to indicate their source of information in relation to contraceptives messages in general. The results obtained from this question are presented in table 4.

Table 4: Source of Contraceptive Messages in General. (n=306)

| Source of information | Yes, I heard or seen | No, I didn't |
|-----------------------|----------------------|---------------|
| Friend | 29.4% (n=90) | 70.6% (n=216) |
| School | 32.7% (n=100) | 67.3% (n=206) |
| Radio | 16.3% (n=50) | 83.7% (n=256) |
| Television | 24.2% (n=74) | 75.8% (n=232) |
| Internet | 18.3% (n=56) | 81.7% (n=250) |
| Newspaper | 13.1% (n=40) | 86.9% (n=266) |
| Magazine | 14.1% (n=43) | 85.9% (n=263) |
| Health professionals | 42.5% (n=130) | 57.5% (n=176) |
| Parents | 19.9% (n=61) | 80.1% (n=254) |

The participants of the study were further required to indicate the source where they heard or seen the implant contraceptives messages. The results obtained from the participants in relation to source of implant contraceptives messages are reflected in Table 5.

Table 5: Source of Implant Contraceptive Message (n=306)

| SOURCE OF INFORMATION Indication of whether/not, heard of or seen/read about from source | YES | NO |
|---|--------------|---------------|
| Friend | 25.5% (n=78) | 74.5% (n=22) |
| School | 23.2% (n=71) | 76% (n=235) |
| Radio | 12.4% (n=38) | 87.6 (n=268) |
| Television | 18% (n=55) | 82% (n=251) |
| Internet | 19% (n=58) | 81% (n=248) |
| Newspaper | 6.2% (n=19) | 93.8% (n=287) |
| Magazine | 10.1% (n=31) | 89.1% (n=275) |
| Health professionals | 22.9% (n=70) | 77.1% (n=236) |
| Parents | 13.7% (n=42) | 86.3% (n=264) |

6.2.3 Influence of Health Messages on Intentions to use Implant Contraceptives

The first objective of the study was to investigate whether exposure to health communication messages about implant contraceptives could influence the intention to use them. The results indicate that during data collection 49%, (n=151) of the participants were not exposed to the implant contraceptives poster message and 51%, (n=155) were exposed to the poster message. In an attempt to test the difference between the two groups of the participants which were the control group (the group that was not exposed to the implant contraceptive poster message) and the experiment group (the group which was exposed to the implant contraceptives poster message), a crosstabulation test was conducted. The results indicate that among the two groups, 31.4%, (n=96) of the experiment group participants indicated that they

were not willing to use implant contraceptives and 19.3%, (n=59) were willing to use the implant contraceptives. In comparison to the control group, 29%, (n=91) of the participants were not willing to use implant contraceptives and 19.6%, (n=60) were willing to use implant contraceptives.

6.2.4 Perceptions on Benefits of use

The second objective of this study was to establish the perceived benefits of implant contraceptives among young women. In an attempt to answer this objective participants were asked to rate the question asked on a 5-point likert scale. Participants were asked to rate the statement that says “implant contraceptives can protect me from falling pregnant at an early age”. The responses from the participants indicated that 52%, (n=160) of the participants agreed with the statement, 23%, (n=71) strongly disagreed and 17%, (n=53) of the respondents indicated that they were not sure. While on the other hand, a total of 5%, (n=15) strongly disagreed with the statement and 2%, (n=7) disagreed.

Participants were asked to rate whether “implant contraceptives are the best birth control or prevention method”. The responses of this question showed that 36%, (n=110) of the respondents strongly agreed with the statement, 6% (n=19) agreed, 30%, (n=90) of the respondents were not sure about the statement, 14%, (n=44) rated the statement with strongly agree and 14%, (n=43) disagreed with statement.

Responses to whether the implant contraceptives provided them an opportunity to enjoy school without worrying about getting pregnant, indicates that 38%, (n=117) of the participants agreed with the statement, 32%, (n=97) strongly agreed and 20%, (n=61) were not sure about the statement. On the other hand, 6%, (n=20) of the participants disagreed with the statement and 4%, (n=11) strongly disagreed.

On whether implant contraceptives are easily accessible at government health clinics/hospitals, responses show that 44%, (n=133) of the participants agreed with the statement, 26%, (n=81) strongly agreed, and 26%, (n=75) of the participants were not sure about the statement. 3%, (n=10) of the participants strongly disagreed and only 1%, (n=4) disagreed with the statement. Table 6 reflects a summary of the above findings.

Table 6: Custom Table showing Perceptions on Benefits of Implant Contraceptives (n=306)

| Statement | Strongly Agree | Agree | Not sure | Disagree | Strongly Disagree |
|---|----------------|-------------|------------|------------|-------------------|
| Implant contraceptive can protect me from falling pregnant at an early age. | 23% (n=71) | 52% (n=160) | 17% (n=53) | 3% (n=8) | 5% (n=15) |
| Implant contraceptives are the best birth control or prevention method. | 36% (n=110) | 6% (n=19) | 30% (n=90) | 14% (n=43) | 14% (n=44) |
| Implant provides me with the opportunity to enjoy school without worrying about getting pregnant. | 32% (n=117) | 38% (n=97) | 20% (n=61) | 4% (n=11) | 6% (n=20) |
| Implant contraceptives are easily accessible at government health clinics/hospitals | 26% (n=81) | 44% (n=133) | 26% (n=75) | 1% (n=4) | 3% (n=10) |

6.2.5 Perceptions on Risks of Use

The third objective of the study was to determine the perceived risks of implant contraceptives among young women. Participants were required to rate statements on a 5-point likert scale. The first statement was “implant contraceptives can cause infertility”. The responses indicated that 4%, (n=13) of the participants disagreed with the statement, 65%, (n=198) indicated that they were not sure while on the other hand 20%, (n=61) of the participants agreed and 11%, (n=34) strongly agreed with the statement.

Participants were asked to rate whether one could experience sore breasts because of implant contraceptives use. Most of the participants 74%, (n=225) were not sure. Only 4%, (n=13) of the participants strongly agreed, 9%, (n=26) agreed. On the other hand 10%, (n=33) strongly disagreed and 3%, (n=9) disagreed with the statement.

Asked to rate whether one is obese, the removal of implant contraceptives could be difficult, responses again showed that more than half of the participants 55%, (n=169) of the respondents were not sure. Once again only 6%, (n=17) of the participants

strongly agreed with the statement, 16%, (n=49) agreed while about the statement, while 20%, (n=61) of the participants disagreed and 3%, (n=10) strongly disagreed with the statement.

Asked to rate whether inserting implant contraceptives was too expensive, responses indicated that 3%, (n=9) of the participants strongly agreed, 6%, (n=17) agreed with the statement while 33%, (n=100) participants were not sure. On the other hand 23%, (n=72) strongly disagreed and 35%, (n=107) disagreed.

Still more than half of the participants 52%, (n=160) were not sure whether implant contraceptives make one lose weight. The responses to this statement showed that 11%, (n=35) of the participants agreed, 5%, (n=14) strongly agreed. On the other hand, the results indicated that 22%, (n=67) disagreed and 10%, (n=30) strongly disagreed with the statement.

The bulk of the participants were unsure or strongly disagreed with the statement that after using implant contraceptives one will struggle to get a child. Results show that 17%, (n=52) disagree and 7%, (n=23) strongly disagreed, 46%, (n=140) were not sure while 11%, (n=32) of the participants strongly agreed, 19%, (n=59) agreed.

The responses to the statement that implant contraceptives can cause severe headaches, showed that 57%, (n=175) of the respondents were not sure, 16%, (n=49) agreed and 6%, (n=20) strongly agreed with the statement. On the other hand, 16%, (n=48) disagreed and 5%, (n=14) strongly disagreed.

Once again, responses showed that 51%, (n=155) of the participants were not sure about whether, irregular bleeding can be caused by the use of implant contraceptives, 26%, (n=80) agreed and 11%, (n=35) strongly agreed. The results further showed that 10%, (n=31) of the participants disagreed and 2%, (n=5) strongly disagreed with the statement.

Finally, 50%, (n=152) of the participants were not sure about whether “using implant contraceptives can result into weight gain or cause obesity”, 23%, (n=70) of the participants agreed with the statement and 11%, (n=33) strongly agreed. On the other hand the responses showed that 12%, (n=37) disagreed while 4%, (n=14) strongly disagreed with the statement. A summary of the findings explained above is provided in Table 7 below .

Table 7: Custom Table showing Perceptions on Risks of Implant Contraceptives (n=306)

| Statement | Strongly Agree | Agree | Not sure | Disagree | Strongly disagree |
|---|----------------|------------|-------------|-------------|-------------------|
| Implant contraceptives can cause infertility | 11% (n=34) | 20% (n=61) | 65% (n=198) | 4% (n=13) | 0% (n=0) |
| You can experience sore breasts because of implant contraceptive use | 4% (n=13) | 9% (n=26) | 74% (n=225) | 3% (n=9) | 10% (n=33) |
| If you are obese the removal of implant contraceptive can be difficult. | 6% (n=17) | 16% (n=49) | 55% (n=169) | 20% (n=61) | 3% (n=9) |
| Inserting implant contraceptive is too expensive | 3% (n=9) | 6% (n=17) | 33% (n=100) | 35% (n=107) | 23% (n=72) |
| Implant contraceptives makes you lose weight | 5% (n=14) | 11% (n=35) | 52% (n=160) | 22% (n=67) | 10% (n=30) |
| After using implant contraceptive you will struggle to get a child | 11% (n=32) | 19% (n=59) | 46% (n=140) | 17% (n=52) | 7% (n=23) |
| Implant contraceptives can cause severe headaches | 6% (n=20) | 16% (n=49) | 57% (n=175) | 16% (n=48) | 5% (n=14) |
| Irregular bleeding can be caused by the use of implant contraceptives | 11% (n=35) | 26% (n=80) | 51% (n=155) | 10% (n=31) | 2% (n=5) |
| Using implant contraceptives can result into weight gain or cause obesity | 11% (n=33) | 23% (n=70) | 50% (n=152) | 12% (n=37) | 4% (n=14) |

6.2.6 Intentions on Implant Contraceptive Use

The last objective of the study was to assess intentions to use implant contraceptives among young women. To answer this objective, the participants were assessed through various questions. The questions and response rate from the participants follow below:

The participants were asked whether they have ever used any form of contraceptives in their life. The responses to this question indicated that 50%, (n=153) of the participants were using or had once used contraceptives in their life. On the other hand it is indicated that 50%, (n=153) of the participants had never used contraceptives before (see Table 8).

Participants were further required to indicate the types of contraceptives that they use or had used before.

Table 8: Participants' Contraceptive Uptake (n=306)

| Contraceptive | Used | Never used |
|---------------------------------|--------------|-------------------|
| Birth control pill | 6.5% (n=20) | 93.5% (n=286) |
| Injections | 26.1% (n=80) | 73.9% (n=226) |
| Female condoms | 4.9% (n=15) | 95.1% (n=291) |
| Male condoms | 18% (n=55) | 82% (n=251) |
| Intrauterine devices | 0.3% (n=1) | 97% (n=305) |
| Diaphragms | 0% | 100% (n=306) |
| Emergency contraceptives | 1.6% (n=5) | 98.4% (n=01) |
| Implant contraceptives | 3.9% (n=12) | 96.1% (n=294) |

Participants who indicated that they were not using contraceptives were further asked to provide reasons for not using or reasons why they stopped using. The responses show that 24%, (n=72) of the participants were not sexually active, 2%, (n=6) had never heard about contraceptives and 10%, (n=31) were afraid to start using. Furthermore, 30%, (n=93) indicated that they were afraid to use due to the risks of contraceptive use.

The participants were also asked whether they had seen any implant contraceptives messages from any source and whether they could still remember what the message

was. The responses indicated that 58%, (n=176) of the participants had seen the message but, they no longer recall what the message was about and 43%, (n=130) claimed that they do remember the message.

Those who indicated that they recall the implant contraceptives messages were further asked what the message was. The responses from the participants indicated that young women had seen different messages about implant contraceptives and they remembered them differently. Some of the responses are as follows:

Implant contraceptives protect against unwanted pregnancies [sic].

Implant contraceptives can protect women against pregnancy for a period of 3 years [sic].

Implant contraceptives are 99% effective [sic].

Implant contraceptives can be reversed at any time [sic].

The participants were further asked whether they considered using implant contraceptives after being exposed to related messages and they were also required to provide reasons for their answers. The responses indicate that only 20%, (n=60) considered use after exposure to the message and 80%, (n=246) did not consider to use implant contraceptive.

In provision of the reasons, participants who considered using implant contraceptives indicated that:

It will help me to stop worrying about visiting clinic more often [sic].

I will enjoy school without worrying about a baby [sic].

On the other hand, those who did not consider using implant contraceptives provided reasons such as:

I don't want to struggle to get a baby when I get married [sic].

I don't want to experience the side effects of using implant contraceptives [sic].

I heard that it can disappear in the body, so I am scared to use it [sic].

Participants were asked to explain whether they thought their friends could be willing to use implant contraceptives. The responses to this question showed that 58%, (n=177) of the respondents indicated that their friends would be willing to use implant contraceptives while 42%, (n=128) did not think their friends would be willing to use implant contraceptives. In provision of the reasons for the above results, participants who indicated that their friends would be willing to use implant contraceptives provided various reasons such as:

Yes, my friend is sexually active and she doesn't want a baby. She can use implant contraceptives to avoid pregnancy until she finish her studies [sic].

Yes, implant contraceptives will protect my friend against pregnancy and enable them to complete their studies without a baby [sic].

Yes, implant contraceptives will help my friend not to fall pregnant while they are still at school and this will make her parents proud [sic].

Participants who think that their friends would not be willing to use implant contraceptive provided reasons such as

No, my friend cannot use this type of contraceptives because many people get ill while using the implant contraceptives. You sometimes find that people experience prolonged bleeding because of the implant contraceptives [sic].

No, this can make her struggle to have babies in future when she is married [sic].

No, implant contraceptives can disappear in her body because she is too big [sic].

No, my friend will not use implant contraceptives, I have used it and experienced too many problems such as severe headache and dizziness [sic].

6.3 HYPOTHESES

6.3.1 Alternative Hypotheses

The first alternative hypothesis H₁ of this study was that exposure to implant contraceptives communication messages will influence intention to use by young women. Participants were asked whether after being exposed to implant contraceptives messages, they could consider using implant contraceptive. The

responses indicated that 80%, (n=246) of the participants indicated that they would not use and only 20%, (n=60) indicated that they would consider to use the implant contraceptives method after they know about it.

The second alternative hypothesis H_2 was that - if young women perceive more benefits than barriers of using implant contraceptives, they would indicate an intention to use them. To test this alternative hypothesis, participants were asked that in view of the benefits of using implant contraceptives, are they willing to use implant contraceptives as a preferred form of birth control. Results indicate that 34%, (n=104) of the participants were willing to use implant contraceptives based on the benefits that they get when using this instrument. 66%, (n=202) of the participants were not willing to use this instrument regardless of its benefits.

6.3.2 Null Hypothesis

The null hypothesis of this study was that if young women perceive more barriers of using implant contraceptives, than benefits they would not indicate an intention to use implant contraceptives. To test the null hypothesis of this study, the participants were asked that in view of the risks of using implant contraceptives, are they willing to use implant contraceptives as preferred form of birth control. The results indicated that 83%, (n=254) of the participants were not willing to use implant contraceptives as a preferred form of birth control while only 17%, (n=52) were willing to use regardless of the risks.

T-test were also conducted in order to test young women's willingness to use implant contraceptives using both barriers and benefits, $N= (306)$, $M=(11.471)$, $SD=(4.337)$, $t=(46.260)$, $df=(305)$, $P=(0.000)$ with confidence interval of (95%). Therefore, if P value for both barriers and benefits is 0.000 respectively which is less than the required P value of 0.05 (5%), then there is enough evidence to conclude that risks and benefits do not predict willingness to use implant contraceptives. Table 9 reflects the results obtained from the t-test.

Table 9: Willingness to use Implant Contraceptive Based on Risks and Benefits (n=306)

| | | Paired Differences | | | | | T | Df | Sig. (2-tailed) |
|---------------|---------------------------|--------------------|----------------|-----------------|--------|--------|--------|-----|-----------------|
| | | mean | Std. Deviation | Std. Error Mean | | | | | |
| | | | | | Lower | Upper | | | |
| Pair 1 | Barriertotal-Benefittotal | 11.471 | 4.337 | 0.248 | 10.983 | 11.959 | 46.260 | 305 | 0.000 |

Analysis of variance was performed to analyse the difference among group means (between and within groups) and their associated procedures between the two groups. Table 10 indicates that P-value= 0.688 for risk total and 0.658 for benefit total. The P-value for both groups is more than 0.05; therefore there is no statistical significant difference between the two groups.

Table 10: Differences between Risk and Benefit Groups (n=306)

| ANOVA | | | | | | |
|--------------|----------------|----------------|-----|-------------|------|------|
| | | Sum of Squares | Df | Mean Square | F | Sig. |
| Barriertotal | Between Groups | 1.955 | 1 | 1.955 | .162 | .688 |
| | Within Groups | 3678.542 | 304 | 12.100 | | |
| | Total | 3680.497 | 305 | | | |
| Benefittotal | Between Groups | 1.384 | 1 | 1.384 | .197 | .658 |
| | Within Groups | 2136.290 | 304 | 7.027 | | |
| | Total | 2137.673 | 305 | | | |

The chi-square tests were conducted in order to test the hypotheses of this study. The result in Table 11 explain that chi-square= 0.90 and P=0.764, this indicate that there is no association between young women’s willingness to use implant contraceptives and the perceived benefits and barriers. Furthermore, it is concluded that young women’s perceived benefits and barriers does not predict their willingness or intentions to use implant contraceptives.

Table 11: Willingness to Use Implant Contraceptives

| Chi-Square Tests | | | | | |
|---|-------------------|----|-----------------------------------|----------------------|----------------------|
| | Value | Df | Asymptotic Significance (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
| Pearson Chi-Square | .090 ^a | 1 | 0,764 | | |
| Continuity Correction^b | 0,033 | 1 | 0,855 | | |
| Likelihood Ratio | 0,090 | 1 | 0,764 | | |
| Fisher's Exact Test | | | | 0,815 | 0,428 |
| Linear-by-Linear Association | 0,090 | 1 | 0,765 | | |
| N of Valid Cases | 306 | | | | |
| a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 58,72. | | | | | |
| b. Computed only for a 2x2 table | | | | | |

6.4 SUMMARY OF THE CHAPTER

The chapter provided the findings of the study. The results are presented in relation to the study objectives as well as the hypotheses that were tested. Chapter 7 presents a discussion of the research findings.

CHAPTER SEVEN

DISCUSSION OF THE FINDINGS

7.1 INTRODUCTION

This chapter provides findings based on the objectives and hypotheses in relation to the theoretical framework that guided the study. A discussion of the research outcomes is provided in this chapter in which findings are discussed with support from literature that has been reviewed. The purpose of this study was to explore the variables that could predict the uptake of implant contraceptives among young women in South Africa.

7.2 DISCUSSION OF THE RESULTS

7.2.1 Demographical information

7.2.1.1 Age

The study reveals that the majority of the participants who took part in this study ranged from 18 to 19 years. The majority of participants were in the reproductive age group. This group was relevant to the study because they are teenagers and according to South African laws they have reached the age of consent, even though the country has designated medical consent to be 12 years. A number of authors (Ejembi et al., 2015, Nyako, 2015, Pulamuleni, 2013) all note that characteristics such as age influence young women's use of contraceptives and this is well established in the literature.

7.2.1.2 Level of education

The majority of participants ranged from Grade 11 to 12. The level of education may be important because it can influence knowledge about the purpose of contraception but also indicates the financial ability to use. Kilfoyle et al. (2016:1249) support the results of the current study by reporting that the majority of participants were educated and could identify the purpose of contraception. Ejembi et al. (2015:6) agree that education is a predictor of socio-economic status which correlates with contraceptive use. Meltcalfe et al. (2016:28) conversely found out that low educational attainment contributes to contraceptive non-use.

7.2.1.3 Awareness of modern contraceptive methods

Nearly all participants were aware of contraceptive methods. This shows that so far, there is good general knowledge about contraceptives. However, it is debatable whether specific knowledge in terms of what are the suitable contraceptives, their risks and benefits, needed by young women in order to make decisions about use is available. The study did not set out to find such causal relationships. These findings support those by Johnson, Pion & Jennings (2013:1), who reported a high level of awareness among the participants. Bankole and Onasote (2017:202) too found that participants usually have a high level of awareness on various contraceptive methods, while according to Hoque, Ntsipe and Mokgatle-Nthabu (2013) both girls and boys have good awareness level of contraceptives.

7.2.2 Exposure to Messages and Intentions to use Implant Contraceptives

The first objective of the study was to investigate whether exposure to health communication messages about implant contraceptives could influence the intention to use them.

The majority of young women in the group that was not exposed to contraceptive messages were not willing to use implant contraceptive. Likewise, the majority of young women in the experiment group were also not willing to use implant contraceptives. This shows that knowledge and awareness about implant contraceptives in general may not influence young women to use them. These results concur with those of researchers who found that participants may hear about implant contraceptives, but only a few will consider implant contraceptive use (Mubarik et al., 2016; Ochako et al., 2015).

Study findings also indicate that the majority of young women have been exposed to implant contraceptives. Pillay et al. (2017:186) support these results by reporting that women had knowledge of implant contraceptive. Mubarik et al. (2016:2229) also found in a study that young women have a good knowledge about implant contraceptives.

Furthermore, the majority of young women had seen the implant contraceptive message on posters similar to OneLove (2009:26) who reports that participants get exposed to health messages on various multimedia vehicles. Ajaero et al. (2016:1) too, report that access to family planning messages using mass media is effective in

influencing contraceptive use. Hussain (2011:9) agrees by stating that exposure to mass media influences low fertility rate among those who are exposed to contraceptive messages through mass media.

An important finding of the study is that most women heard about implant contraceptives from their friends. This finding is important in terms of the influencing power of word of mouth. It is probable that the persuasion of word-or-mouth especially in the case of the use of contraceptives is compounded by the fact that users are able to share their experiences. If the experiences are positive including convenience and less side-effects, they may persuade others to use. Interpersonal communication is a significant predictor of current use of contraceptives (Raut, 2013). Interpersonal communication channels are used to pass family planning messages effectively and are reported to be the main source of improving contraception knowledge (Rhema 2013).

7.2.3 Perceived Benefits of Implant Contraceptives

The second objective of the study was to establish the perceived benefits of implant contraceptives among young women.

Most of the participants agree that implant contraceptives can protect them from falling pregnant at an early age. Several researchers (Croxatto & Makarainen 1998; Darney et al. 2009; Funk et al. 2005) all found that no pregnancies occurred when participants were using implant contraceptives such as Implanon. Most participants also agree that implant contraceptives are the best form of contraceptives available. This finding may be due to the convenience of using the implant contraceptive, specifically, not getting pregnant which would be an inconvenience to school going learners, but also travelling long distances to access and the burden of remembering daily consumption as is the case with oral contraceptives. This agrees with another study which has been reported that implant contraceptives offer 99% effectiveness (Bhekisisa, 2015), Thomas (2017) adds that this effectiveness occurs within seven days of insertion.

According to Brand et al. (2010), the implant contraceptive is an effective long-term contraception that does not depend on the recipient's daily compliance.

The majority of the participants agree that the implant contraceptive provides an opportunity to enjoy schooling without worrying about falling pregnant. The Center for Women's Health (2014) supports these results by reporting that the implant contraceptive protects against pregnancy from 24 hours to 3 years after insertion. Adams (2015:32) report that implant contraceptives are effective for up to 3 years, while Steyn and Kluge (2010:21) state that implant contraceptives are not user-dependent and have very low failure rates.

Most of the participants agree that implant contraceptives are easily accessible at government health facilities. Clinics run by the City of Cape Town facilitated more than 900,000 family planning and contraceptive appointments between April 2016 and March 2017 (Times Live 2017). It should be noted that as reported in chapter one, in March 2018, most of the government public health facilities had run out of contraceptives. Moriarty Daley and Polifroni (2017:367); demonstrated that teenagers have access to contraceptive services at school based health care centres. By contrast, Advocates for Youth (2008:1) report that some of the SBHC's have been prohibited from dispensing some or all contraceptives.

7.2.4 Perceived Risks of Implant Contraceptives

The third objective of the study was to determine perceived risks of implant contraceptives among young women.

In this study, the results show that the majority of the participants were not sure about the statement that implant contraceptives can cause infertility. This is worrying because potential users do not know the side effects that may have long lasting and severe impact on their bodies and probably affect family relationships if they are unable to have children. It is thus important that young women are equipped with the necessary specific knowledge to enable them to make informed decisions. Contrary to these results, Ochako et al. (2015:118) report that infertility was one of the biggest fear cited by the majority of the participants. In agreement with the above results, Gueye et al. (2015:193) state that young women agreed that implant contraceptives can cause infertility.

The results of this study reveal that the majority of young women were not sure about whether one can experience sore breasts because of implant contraceptives. Contradictory to these results are those of Banafa et al. (2017:33), who found out that the majority of participants cited breast tenderness as one of the side effects. Similar to the above results, the National Department of Health (2012:32) states that breast tenderness is a common side effect among implant contraceptive users.

The results of this study showed that the majority of young women were unsure about whether inserting the implant contraceptive is too expensive. Contrary to these results, South Africa offers free implant contraceptives at government health facilities (Savage-Oyekunle & Nienaber, 2015:548). Different results were noted by Bhekisisa (2015:1), who state that implant contraceptives cost R1 700 at South African private health facilities, but are free at government health facilities.

This study shows that the majority of young women agreed that implant contraceptives can cause severe headaches. Contrary to these results, Maryland Family Planning & Reproductive Health Program Clinical Guidelines (2012) report that woman complained about headaches. Similarly, Meirik et al. (2003) and Pillay et al. (2017) reveal that participants reported severe headaches.

The study reveal that half of the participants were not sure about the statement that irregular bleeding can be caused by the use of implant contraceptives. These results were supported by Steyn and Kluge (2010:502), who state that implant contraceptive users experience irregular menstrual problems. Similar results were those of Meirik et al. (2003:52) who report that participants discontinued using the implant contraceptive due to irregular bleeding.

The results of this study show that most participants were not sure about the statement that implant contraceptives can cause women to gain weight or obesity. Contrary to these results, Brache et al. (2002) found out that implant contraceptive users complaint mainly about gaining weight. Similar results were observed by Pillay et al. (2017:819) who state that weight gain contributes to discontinuation of implant contraceptives. Furthermore, the Maryland Family Planning & Reproductive Health Program Clinical Guidelines (2012) report that a small number of users gained weight as a result of implant contraceptive use.

In summary, many of the participants express that they were unsure about statements asked to find out their specific knowledge of the risks of using implant contraceptives. This is an important finding because it shows that if women are not informed about potential consequences they may end up using methods that are harmful to their bodies but most importantly are denied the right to make informed decisions. But also, it provides a motivation for use of health communication campaigns coupled with interpersonal methods to disseminate such crucial information.

7.2.5 Intentions to use Implant Contraceptives

The fourth objective of the study was to assess intentions to use implant contraceptives by young women.

The results of this study reveal that the majority of young women were not willing to use implant contraceptives after being exposed to the implant contraceptive message. This is in line with the findings in Winn-Dix et al. (2016:118), who report that participants were not willing to use implant form of contraceptives indicating side effects as the main reason. Funk et al. (2005:322), who found that participants were unwilling to continue with the implant contraceptive due to side effects, noted similar results. Contrary to these results in the current study, Ajaero et al. (2016:1) demonstrate that exposure to mass media messages about contraceptives (implant) increases young women's likelihood to use contraceptives. Similarly, Hussain (2011:9) found out that exposure to mass media messages about contraceptives (implant) had the potential to influence intentions to use.

Even though young women indicated that they are not willing to use the implant contraceptive, they thought that their friends would be willing to use the implant contraceptive. This is an important finding because while the young women are unable to make a choice of using contraceptives based on knowledge about potential harm, they think that these would be good for their friends because of the benefits that they foresee. The Theory of Planned behaviour proposes that perceived behavioural intention assumes that motivational factors influence young women to try hard to make an effort to use the implant contraceptive (Ajzen, 1991:183).

7.3 HYPOTHESES

7.3.1 Alternative Hypothesis (H₁)

A first alternative hypothesis (H₁) of this study tested whether young women's exposure to implant contraceptive messages influenced intentions to use them. The findings of this study indicate that the majority of young women did not have intentions to use implant contraceptives even though they had been exposed to messages about implant contraceptives. This is in line with study findings by Kumar and Brown (2016:4) who found out that young women do not show intentions to use contraceptives even though they have been exposed to messages. These results contradict those by Ajaero et al. (2016:1) who report that exposure to mass media messages on contraceptives increases young women's likelihood to use contraceptives.

7.3.2 Alternative hypothesis (H₂)

A second alternative hypothesis (H₂) of this study tested whether young women perceive more benefits than risks of using implant contraceptives, they will indicate an intention to use them. The study outcomes reveal that the majority of participants were not willing to use the implant contraceptives regardless of its benefits. In other words, the majority of the participants perceived more risks than benefits of the implant contraceptive. This is in line with the findings by Bellizzi et al. (2015:2) who found out that most young women often cited that side effects contributed to their decision not to use implant contraceptives.

7.3.3 Null hypothesis (H₀)

The null hypothesis of this study state that if young women perceive more risks of using implant contraceptives than the benefits, they will not indicate an intention to use implant contraceptives. The results indicate that the majority of participants were not willing to use implant contraceptives due to the perceived risks of use. Therefore, the null hypothesis is not rejected by this study.

Similar results were noted by (Funk et al. 2005, Nhlumayo 2017, Winn-Dix et al. 2016), who all found that young women indicated fear of side effects as the major reason for discontinuation of implant contraceptives, while Pillay et al. (2017:819) reported that young women discontinued to use implant contraceptive because of side effects associated with the use.

7.4 SUMMARY OF THE CHAPTER

This chapter discussed and attempted to interpret results premising from the objectives of the study. In addition, based on the findings, the null hypothesis was not rejected; therefore may be assumed to be true. The next chapter outlines the conclusion, limitations of the study and the recommendations.

CHAPTER EIGHT

SUMMARY, RECOMMENDATIONS AND CONCLUSION

8.1 Introduction

The previous chapter offered a detailed discussion of the study results. This chapter provides summary of the results, recommendations, limitations of the study and suggestions for further research.

8.2 Summary of the results

The first objective of this study was to investigate whether the exposure to health communication messages about implant contraceptives could influence the intention to use them. The study has revealed that even though the participants were exposed to implant contraceptive messages, they were not willing to use the implant form of contraception to prevent unintended pregnancies. As a result, exposure to implant contraceptive messages does not translate to use. The second objective of the study was to establish the benefits of implant contraceptives among young women. In relation to this objective, the study found out that young women were in agreement with all perceived benefits of the implant contraceptive as indicated on the five point Likert scale on the questionnaire.

The third objective was to determine the perceived risk of using the implant contraceptive among young women. In association to this objective, the study revealed that young women were unsure of the various myths and misconceptions related to implant contraceptive use as indicated on the five point Likert scale. The fourth objective of this study was to assess intentions to use implant contraceptives by young women. The results indicate that young women were not willing to use the implant contraceptive indicating fear of side effects as the major reason. However, they thought that their friends would be willing to use the implant form of contraception.

The H₁ of this study was that exposure to implant contraceptive communication messages will influence intention to use by young women. The findings indicate that young women do not indicate the intention to use implant contraceptive even though they have been exposed to implant contraceptive messages. The H₂ of this study was that if young women perceive more benefits than risks of using implant contraceptives, they will indicate an intention to use them. The study revealed that regardless of the

perceived benefits of implant contraceptive use, participants were not willing to use implant contraceptives. As a result, young women perceived more risks than benefits. Lastly, the H_0 of this study was that if young women perceive more risks of using implant contraceptives than benefits they will not indicate an intention to use implant contraceptives. The study outcomes show that young women perceived more risks than benefits, therefore, they were not willing to use the implant contraceptive as a tool to prevent unintended pregnancies.

8.3 RECOMMENDATIONS

The study found out that implant contraceptive uptake is very low in South Africa. The reason behind the low rate of implant contraceptive uptake has been lack of real knowledge, myths, misconceptions and lack of access to implant contraceptive messages. It was also found that many young women were not willing to use implant contraceptive as a tool to prevent unwanted pregnancies. As a result, the researcher made the following recommendations:

8.3.1 Recommendations to the Department of Health and other health promotion organisations

The National Department of Health needs to initiate more campaigns to create awareness and knowledge about the implant contraceptives. Currently, there is a shortage of mass media campaigns that create awareness and improve knowledge about the implant contraceptive. Interpersonal channels such as word of mouth at government clinics and hospitals are currently in use. However, interpersonal channels cannot create general awareness as media campaigns do. In order to achieve the government's goal of decreasing teenage pregnancy, there should be more campaigns that specifically talk about implant contraceptives.

There should also be programmes and poster messages about implant contraceptives at schools to assist in spreading information about them. Health representatives should be available at schools to assist in providing information whenever the information is needed. Information should be provided to young women starting from primary schools in order to build young women's confidence when talking about contraceptives.

8.3.2 Recommendations to young women

This study has found that the majority of participants were unsure of most statements presented to them in relation to implant contraceptive myths, side effects and benefits. Therefore, it is recommended that young women should seek proper and adequate information about matters that concern their health and stop listening to rumours associated to implant contraceptives. Young women should visit clinics to get adequate information about implant contraceptives because this study found that most young women were not willing to use implant contraceptives due to misconceptions and myths related to implant contraceptive use.

8.4 LIMITATIONS OF THE STUDY

The study was restricted to six secondary schools in the Mankweng Circuit. The researcher further selected young women who were 18 years and above to form part of this study. This was done because young women aged less than 18 years require parental consent before they take part in any study. Therefore, these limitations restrict generalisation of the research findings.

Data were collected using the self-administered questionnaire formulated in the English language. There are possibilities that young women might have misinterpreted the questions because English is not their first language. Even though the researcher had research assistants to assist participants with clarity of questions, young women might have been embarrassed to ask for clarification.

Furthermore, there was limited literature in terms of the benefits of specifically using implant contraceptives as opposed to other forms, which means that it is an unexplored area yet it remains a viable area of study. Besides these limitations, the results of this study enabled the researcher to draw conclusions on young women's willingness to use implant contraceptives in South Africa.

8.5 AREAS FOR FURTHER RESEARCH

As the study revealed that the use of implant contraceptives is too low among young South African women, further research is needed about young women's acceptance of implant contraceptives as a tool to prevent unintended pregnancies. In addition,

the study was conducted in rural parts of South Africa. Perhaps a study of use among urban based young women would yield different results.

8.6 CONCLUSION

In sum, the study provided some insight into implant contraceptive uptake among young South African women specifically that young women's willingness to use implant contraceptives does not rely on perceived benefits nor risks as set out in communication campaigns. There is enough evidence to conclude that risks and benefits do not predict the willingness to use implant contraceptives. This is because there was no difference between the group means and their associated procedures among the two groups (the benefit group and the barrier group). However, the study was able to show that peers are important in terms of influencing young women's use of contraceptives. If they hear from friends perhaps about their experiences in using contraceptives, they are able to make individual choices for use. Given the power of interpersonal influence of social media, and high usage among young people, this could be an alternative. Care however, should be taken to ensure that the correct information is shared, as the side effects of incorrect use of implant contraceptives can be severe. However, health communication campaigns should not be dismissed, as they would be crucial for reaching as many young women as possible, even though information about contraceptives should be specific rather than general as is currently provided.

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APPENDICES

Appendix One: Consent form

INSTITUTION: UNIVERSITY OF LIMPOPO

My name is Morongwa Martha Manthata, I am a postgraduate student at the University of Limpopo.

PURPOSE OF THE QUESTIONNAIRE: This study aims to find out whether South African teenagers could be willing to use implant contraceptives.

NOTE TO THE RESPONDENT:

xParticipation is voluntary.

xInformation obtained from the respondents remains private and confidential.

I require written permission to use your responses. The consent form will be kept separate from the questionnaire.

CONSENT

I hereby acknowledge the contents of this questionnaire and grant permission to the researcher to make use of my responses towards her research study. I understand that I can withdraw from this survey at any point and understand that taking part in this study is voluntary.

Signed by:

INSTRUCTIONS:

1. Answer honestly.
2. Please do not cancel your responses
3. Please do not write your name and surname on this survey

Appendix Two: Questionnaire

SECTION A

Please answer the following by marking a cross (X) in the appropriate block or blocks.

For example

The grass is

| | |
|-------|---|
| Red | |
| Green | X |

1. Which school are you enrolled at?

| | |
|---------------------|--|
| Hwiti High | |
| Klass Mothapo High | |
| Makgongoana High | |
| Mamabudusha High | |
| Mountain view High | |
| Other (please name) | |

2. Which grade are you attending?

| | |
|----------|--|
| Grade 8 | |
| Grade 9 | |
| Grade 10 | |
| Grade 11 | |
| Grade 12 | |

3. How old are you?

| | |
|--------------|--|
| 17 years old | |
| 18 years old | |
| 19 years old | |

SECTION B

4. Have you ever heard/seen a message/advertisement about contraceptivesfl

| | |
|-----|--|
| Yes | |
| No | |

5 .If yes, where have you heard/seen a message /advertisement about contraceptivesfl **(please tick all relevant options)**

| | |
|-----------------------------|--|
| Friend | |
| Health clinic: poster | |
| School | |
| Radio | |
| Television | |
| Internet | |
| Parents | |
| Newspapers | |
| Magazines | |
| Health clinic: nurse/doctor | |
| Other (please name) | |

6 In your own words, please explain what contraceptives are.

.....

.....

.....

7 Have you ever used contraceptivesfl

| | |
|-----|--|
| Yes | |
| No | |

8 If the answer is yes, which method of contraceptives are you using or have usedfl (Ignore if you are not using them)

| | |
|---------------------|--|
| Pill: birth control | |
| Injection | |
| Male condoms | |
| Female condoms | |

| | |
|-------------------------------|--|
| Intrauterine devices (IUDs) | |
| Diaphragm | |
| Emergency contraceptive pills | |
| Implant contraceptive | |
| Other (please name) | |

9 When did you start using contraceptives

| | |
|-----------------------|--|
| 1 year ago | |
| 2 years ago | |
| 3 years ago | |
| 4 years ago | |
| 5 years ago | |
| More than 5 years ago | |

10 If the answer is yes, are you still using contraceptivesfl

| | |
|-----|--|
| Yes | |
| No | |

11 If you have never used contraceptives before, why have you not considered using themfl

| | |
|---------------------------------------|--|
| I am not sexually active | |
| I have never heard about them before | |
| I'm afraid to start using them | |
| I'm afraid of the risks of using them | |
| Other (please name) | |

12 Tick the types of contraceptives that you know. **(tick all relevant options)**

| | |
|-----------------------------|--|
| Pill: birth control | |
| Injection | |
| Male condom | |
| Female condom | |
| Intrauterine devices (IUDs) | |
| Diaphragm | |

| | |
|-------------------------------|--|
| Emergency contraceptive pills | |
| Implant contraceptive | |
| Other (please name) | |

13 Have you ever heard/seen a message/advertisement about implant contraceptivesfl

| | |
|-----|--|
| Yes | |
| No | |

14 Where have you seen/heard a message/advertisement about implant contraceptivesfl(**please tick all relevant options**)

| | |
|-----------------------------|--|
| Friend | |
| Health clinic: poster | |
| School | |
| Radio | |
| Television | |
| Internet | |
| Parents | |
| Newspapers | |
| Magazines | |
| Health clinic: nurse/doctor | |
| Other (please name) | |

15 In your own words, please explain what an implant contraceptive isfl

.....

SECTION C

Please answer the following questions by marking a (X) in one appropriate box.

| Questions | Strongly agree | Agree | Not sure | Disagree | Strongly disagree |
|---|----------------|-------|----------|----------|-------------------|
| 16. Implant contraceptives can cause infertility. | | | | | |
| 17. Implant contraceptives protect me from falling pregnant at an early age. | | | | | |
| 18. You can experience sore breasts because of implant contraceptive use. | | | | | |
| 19. If you are obese implant contraceptives are difficult to remove. | | | | | |
| 20. Inserting implant contraceptives is too expensive. | | | | | |
| 21. Implant contraceptives make you lose weight. | | | | | |
| 22. After using implant contraceptives you will struggle to get a child. | | | | | |
| 23. Implant contraceptives can cause severe headaches. | | | | | |
| 24. Implant contraceptives are the best prevention method. | | | | | |
| 25. Implant contraceptives provide me with the opportunity to enjoy school without worrying about getting pregnant while still schooling. | | | | | |

| | | | | | |
|--|--|--|--|--|--|
| 26. Irregular bleeding can be caused by the use of implant contraceptives. | | | | | |
| 27. Implant contraceptives are easily accessible at government health clinics/hospitals. | | | | | |
| 28. Using implant contraceptives could result into weight gain or obesity. | | | | | |

SECTION D

Please answer the following questions.

29. If you have seen/heard a message about implant contraceptives, do you remember what the message was?

| | |
|-----|--|
| Yes | |
| No | |

30. If the answer is yes, what was the message?

.....
.....

31. If the answer is yes to question 29, did you consider using implant contraceptives after seeing or hearing about implant contraceptives?

| | |
|-----|--|
| Yes | |
| No | |

32. In view of the benefits of using the implant contraceptive, would you be willing to use implant contraceptive as a preferred form of contraception.

| | |
|-----|--|
| Yes | |
| No | |

33. If yes, please explain why?

34. If no, please explain why?

35. In view of the risks of using implant contraceptives, would you be willing to use the implant contraceptives?

| | |
|-----|--|
| Yes | |
| No | |

36. If yes, please explain why?

37. If no, please explain why?

38. Do you think your friends could be willing to use implant contraceptive to prevent pregnancy?

| | |
|-----|--|
| Yes | |
| No | |

39. Please give a reason for your answer in number 38.

.....
.....
.....

Please answer the following questions only if you are using or have used implant contraceptives.

40. What is your experience of using implant contraceptives?

.....
.....
.....

Appendix Three: Faculty approval letter

Appendix Four: Department of education approval letter

Appendix Five: Mankweng circuit approval letter



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

PRIVATE BAG X1106
SOVENGA
0727
TEL: 015 267 5641
FAX: 015 267 5248

DEPARTMENT OF EDUCATION
CAPRICORN DISTRICT
MANKWENG CIRCUIT

Enq: MJ KEKANA
Tel No: 015 2675641

2016.07.06

MANTHATA M.M

PRIVATE BAG X1106
SOVENGA
0727

PERMISSION TO CONDUCT RESEARCH: "PREDICTING HEALTH COMMUNICATION CAMPAIGNS: EXPLORING THE UPTAKE OF IMPLANT CONTRACEPTIVES IN A SAMPLE OF SOUTH AFRICAN TEENAGERS."

1. The above matter refers.
2. We acknowledged the receipt of your letter 2016-06-13 requesting to conduct Research at the following schools: Ditlalemeso, Mountainview, Hwiti, Makgoka, Bjatladi and Mamabudusha, Marobathuta, Sekitla, Makgongoana, Mphetsebe, Ramashobohle. Based On the predicting health communication campaigns: exploring the uptake of implant contraceptives in a sample of South African teenagers."
3. The above mentioned research is accepted and permission is granted.
4. Wishing you for the success in your studies.


MAGAGANE M.D.
(CIRCUIT MANAGER)

06/07/16
DATE

Appendix Six: Ethical clearance certificate

Appendix Seven: Poster message A

HERE'S HOW IT WORKS

The rod is about the size of a small matchstick.



It's inserted with a needle just under the skin of your upper inner arm.



Needles are no fun, but
YOU CAN DO IT

★ Don't worry, they numb you first!

Then you get a badass bandage and a crazy bruise to show off for about a week.

And then you don't think about or worry about birth control

FOR THREE YEARS

I pump out low, regulated doses of the hormone *etonogestrel* over those 3 years, then you replace me or remove me.

The levels of hormones are very low in the implant because they can be extremely regulated within the body, and don't have to be processed through digestion, like pills, which often have to be taken at precisely the same time every day, and can cause stomach problems.

The key thing is that it does not contain estrogen, which can have stronger side effects.

The implant is so low-impact on the body, that traces of the hormone are completely undetectable within a week after removal.

You can get pregnant almost immediately after you get it taken out!



Appendix Nine: Sample calculator



Sample size calculator

| | | |
|--|------------------------------------|--|
| What margin of error can you accept? 5% is a common choice | <input type="text" value="5"/> % | The margin of error is the amount of error that you can tolerate. If 90% of respondents answer <i>yes</i> , while 10% answer <i>no</i> , you may be able to tolerate a larger amount of error than if the respondents are split 50-50 or 45-55. Lower margin of error requires a larger sample size. |
| What confidence level do you need? Typical choices are 90%, 95%, or 99% | <input type="text" value="90"/> % | The confidence level is the amount of uncertainty you can tolerate. Suppose that you have 20 yes-no questions in your survey. With a confidence level of 95%, you would expect that for one of the questions (1 in 20), the percentage of people who answer <i>yes</i> would be more than the margin of error away from the true answer. The true answer is the percentage you would get if you exhaustively interviewed everyone. Higher confidence level requires a larger sample size. |
| What is the population size? If you don't know, use 20000 | <input type="text" value="20000"/> | How many people are there to choose your random sample from? The sample size doesn't change much for populations larger than 20,000. |
| What is the response distribution? Leave this as 50% | <input type="text" value="50"/> % | For each question, what do you expect the results will be? If the sample is skewed highly one way or the other, the population probably is, too. If you don't know, use 50%, which gives the largest sample size. See below under More information if this is confusing. |
| Your recommended sample size is | 267 | This is the minimum recommended size of your survey. If you create a sample of this many people and get responses from everyone, you're more likely to get a correct answer than you would from a large sample where only a small percentage of the sample responds to your survey. |