

FEMALE CONDOM ACCEPTABILITY AMONG YOUNG WOMEN IN BOTSWANA

by

MOITLAMO MOKGETSE

submitted in accordance with the requirements

for the degree of

MASTER OF ARTS

in the subject

NURSING SCIENCE

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: DR MM RAMUKUMBA

NOVEMBER 2015

Student number: 4447-938-7

DECLARATION

I declare that **FEMALE CONDOM ACCEPTABILITY AMONG YOUNG WOMEN IN BOTSWANA** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before for any other degree at any other institution.



Moitlamo Mokgetse

3 March 2016

Date

FEMALE CONDOM ACCEPTABILITY AMONG YOUNG WOMEN IN BOTSWANA

STUDENT NUMBER: 4447-938-7
STUDENT: MOITLAMO MOKGETSE
DEGREE: MASTER OF ARTS
DEPARTMENT: HEALTH STUDIES, UNIVERSITY OF SOUTH AFRICA.
SUPERVISOR: DR MM RAMUKUMBA

ABSTRACT

Correct and consistent use of female condom is an effective strategy for the reduction of unintended pregnancy and sexually transmitted infections including HIV/AIDS. The researcher used a non-experimental descriptive quantitative research design to explore the acceptability of female condom among young women aged between 15 and 34 years of age in Jwaneng Township, Botswana. Simple random sampling was used to recruit the respondents. Data were collected using self-administered structured questionnaires from women accessing health care services in the three health facilities in Jwaneng Township. Data were analysed using the SPSS statistical program version 23 for windows.

The findings show low utilisation of the female condom. The study highlights the significant challenges regarding availability, shape, material and lack of information about female condom in Jwaneng. Based on the study results, various strategies need to be developed, there might be a need to package health promotion differently for different age groups to effectively promote the female condom.

Key concepts

Acceptability; control; female condom; young women; health promotion.

ACKNOWLEDGEMENTS

I would like to express my sincere appreciation to the following people:

- My greatest gratitude goes to God who granted me success and strength. To Him I return all the glory and thanks for His endless love.
- A special thank you to my supervisor, Dr MM Ramukumba, for her unwavering patience and untiring guidance, support and assistance throughout the period of studying and working towards this degree. She has been of immense support in my academic success and confidence. She taught me how to think out of the box, this is the result of all her patience.
- Mr Ganyaupfu, for his expertise in managing and analysing the data.
- Mr Chokwe for editing the dissertation
- Mrs Rina Coetzer for the professional formatting
- My daughter, Oabopa, who has always encouraged me to continue with the study even when things were not going well on my side.
- Jwaneng District Health Management Team, for allowing me to undertake the study in their district.
- The nurses in-charge of Ditsweletse, Tshimologo and EU 7 Clinic and their staff who provided support during the study.
- Finally, the participants who were willing to share their experiences.
- To all my friends, for their support and encouragement.

Dedication

This dissertation is dedicated to me, my colleagues at work and family who were my source of strength and inspiration throughout the difficult study period. Without their love and unwavering support throughout the study it was not going to be easy for me to complete this study. I also dedicate this work to my late mother, Gaomodimo, who taught us that the sky is the limit and was always supportive.

TABLE OF CONTENTS

CHAPTER 1	1
ORIENTATION TO THE STUDY	1
1.1 INTRODUCTION.....	1
1.2 RESEARCH PROBLEM.....	2
1.2.1 Background to the problem	2
1.2.2 Statement of the research problem	3
1.3 PURPOSE OF THE STUDY.....	4
1.3.1 Objectives of the study	4
1.4 RESEARCH QUESTIONS	4
1.5 SIGNIFICANCE OF THE STUDY.....	5
1.6 DEFINITION OF KEY CONCEPTS	5
1.7 RESEARCH METHODOLOGY	6
1.7.1 The research design	7
1.7.2 Population and sample.....	7
1.7.2.1 Population	7
1.7.2.2 Sampling and sample.....	7
1.8 The research setting	8
1.9 DATA COLLECTION.....	8
1.9.1 Data collection instrument and process	8
1.10 VALIDITY AND RELIABILITY.....	8
1.11 DATA ANALYSIS	9
1.12 ETHICAL CONSIDERATIONS	9
1.12.1 Beneficence/freedom from harm	9
1.12.2 Informed consent	10
1.12.3 The right to self-determination.....	10
1.12.4 The right to privacy.....	10
1.12.5 Anonymity	11
1.13 SCOPE AND LIMITATIONS.....	11
1.14 STRUCTURE OF THE DISSERTATION	11
1.15 CONCLUSION	12
CHAPTER 2.....	13
LITERATURE REVIEW	13
2.1 INTRODUCTION.....	13
2.2 HUMAN IMMUNODEFICIENCY VIRUS/ACQUIRED IMMUNE DEFICIENCY SYNDROME (HIV/AIDS).....	13
2.2.1 Women and HIV/AIDS infection	13
2.3 MANAGEMENT OF HIV/AIDS IN SUB-SAHARAN AFRICA.....	14

2.3.1	The female condom initiative.....	14
2.4	FACTORS RELATED TO FEMALE CONDOM USE	15
2.4.1	Access to female condom information.....	15
2.4.2	Issues related to the design of the female condom.....	17
2.5	ACCEPTABILITY OF FEMALE CONDOM	17
2.5.1	Factors related to acceptability of female condom.....	19
2.5.1.1	Socio-cultural factors and power relations	19
2.5.1.2	Religion.....	21
2.6	ACCESSIBILITY OF FEMALE CONDOM TO WOMEN.....	21
2.7	CONCLUSION	22
	CHAPTER 3.....	23
	RESEARCH METHODOLOGY	23
3.1	INTRODUCTION.....	23
3.2	RESEARCH DESIGN.....	23
3.2.1	Quantitative design	23
3.2.2	Non-experimental design	24
3.2.3	Descriptive design.....	24
3.2.4	The study setting.....	25
3.3	RESEARCH METHODS	26
3.3.1	Population	27
3.3.1.1	Sampling	27
3.3.1.2	Sample.....	28
3.3.2	Data collection approach and method	29
3.3.2.1	Research instrument.	29
3.3.2.2	Development and testing of the data collection instrument.....	30
3.3.2.3	Data collection process	32
3.3.2.4	Ethical considerations	32
3.3.2.4.1	Beneficence	32
3.3.2.4.2	Informed consent	33
3.3.2.4.3	The right to self-determination/Justice.....	33
3.3.2.4.4	The right to privacy and confidentiality	34
3.4	Data analysis	34
3.5	Reliability and validity of the study.....	35
3.5.1	Validity of the study	35
3.5.2	Reliability of the study	36
3.6	CONCLUSION	37

CHAPTER 4.....	38
ANALYSIS, PRESENTATION AND DESCRIPTION OF THE RESEARCH FINDINGS	38
4.1 INTRODUCTION.....	38
4.2 DATA MANAGEMENT AND ANALYSIS	38
RESEARCH RESULTS.....	39
4.3 SECTION A: DEMOGRAPHIC DATA.....	39
4.3.1 Sample characteristics: Demographic characteristics of respondents	39
4.3.1.1 Facility nearest to respondents.....	39
4.3.1.2 Age categories of respondents.....	40
4.3.1.3 Number of respondents' children.....	40
4.3.1.4 Marital status.....	40
4.3.1.5 Employment status.....	41
4.3.1.6 Educational level	41
4.3.1.7 Religion	41
4.3.1.8 Sexual partners	42
4.4 SECTION B: Knowledge and Use of Female Condom	42
4.4.1 Respondents who have heard of the female condom.....	42
4.4.2 Main source of information	42
4.4.3 Participants who had seen the female condom	43
4.4.4 Reaction to condom shape and size.....	43
4.4.5 Methods of contraception	44
4.4.6 Duration of female condom use.....	45
4.4.7 Use of the female condom	45
4.5 SECTION C: GENERAL VIEWS OF THE RESPONDENTS ABOUT THE FEMALE CONDOM.....	46
4.5.1 Female condom and women empowerment.....	47
4.5.2 Choice between male and female condom.....	48
4.6 Barriers to use of female condom.....	48
4.6.1 Female condom material.....	48
4.6.2 Female condoms availability and accessibility.....	49
4.6.3 Views regarding female condom promotion.....	49
4.6.4 Views regarding barriers to female condom use.....	50
4.7 Relationship between contraception and general view	50
4.8 CONCLUSION	52
CHAPTER 5.....	53
CONCLUSIONS AND RECOMMENDATIONS	53
5.1 INTRODUCTION.....	53
5.2 RESEARCH DESIGN AND METHOD.....	53

5.3	SUMMARY AND INTERPRETATION OF THE RESEARCH FINDINGS	53
5.3.1	Demographic data and use of female condom	54
5.3.2	Knowledge and extent of female condom use	55
5.3.2.1	Use of the female condom	56
5.3.3	General views about the female condom.....	56
5.3.4	Barriers to use of female condom.....	56
5.3.5	The relationship between demographics and attitude toward female condom	57
5.4	RECOMMENDATIONS	57
5.4.1	Health policy	57
5.4.2	Health promotion.....	58
5.4.3	Further research.....	58
5.5	CONTRIBUTIONS OF THE STUDY.....	59
5.6	LIMITATIONS OF THE STUDY.....	59
5.7	CONCLUSIONS.....	59
	REFERENCES.....	61
	ANNEXURE A: APPLICATION TO CONDUCT RESEARCH.....	67
	ANNEXURE B: PERMISSION TO CONDUCT STUDY	69
	ANNEXURE C: CONSENT FORM	71
	ANNEXURE D: ASSENT.....	73
	ANNEXURE E: QUESTIONNAIRE.....	76
	ANNEXURE F: ETHICAL CLEARANCE CERTIFICATE.....	83

LIST OF TABLES

Table 4.1	General views about the female condom	46
Table 4.2a	Relationship between contraception and general views to female condom ...	51
Table 4.2b	The strength of association: Cramer's V scores	52

LIST OF FIGURES

Figure 3.1	Map of Botswana.....	25
Figure 4.1	Facility nearest to the respondents	39
Figure 4.2	Age distribution of the respondents	40
Figure 4.3	Main source of information about the female condom	42
Figure 4.4	First general reactions to female condom shape and size	43
Figure 4.5	Current contraception methods	44
Figure 4.6	Female condom and women empowerment	47
Figure 4.7	Female condom material	48
Figure 4.8	Female condom promotion.....	49

LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
BAIS IV	Botswana AIDS Impact Survey IV
CHW	Community Health Workers
CSO	Central Statistics Office
DMSAC	District Multi-Sectoral AIDS Committee
EU 7	Environmental Unit 7
FC	Female Condom
FP	Family Planning
HIV	Human Immunodeficiency Virus
HRDC/HRU	Health Research Development Committee/Health Research Unit
JDHMT	Jwaneng District Health Management Team
MC	Male Condom
MoH	Ministry of Health
NACA	National AIDS Coordinating Agency
SPSS	Statistical Package for the Social Sciences
SRH	Sexual Reproductive Health
SS	Sentinel Surveillance
SSA	Sub-Saharan Africa
STIs	Sexually Transmitted infections
TAC	Technical Advisory Committee
UNAIDS	United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund
USFDA	US Food and Drug Administration
WHO	World Health Organization

CHAPTER 1

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

HIV/AIDS is a global public health problem that continues to affect millions of people around the world, especially in developing countries. The joint United Nations Programme on HIV/AIDS (UNAIDS) Global Report (UNAIDS 2015:1) revealed that at the end of 2014, an estimated 36.9 million people were living with HIV globally, of which 34.3 million were adults, and women accounted for 17.4 million. Worldwide, the number of people newly infected with HIV continues to fall. For instance, the number of people (adults and children) acquiring HIV infection in 2011 was 20% lower than in 2001.

In 2011, 1.7 million people died from AIDS-related causes worldwide. This represents a 24% decline in AIDS-related mortality compared with 2005 when 2.4 million deaths occurred. However, national epidemics continue to expand in sub-Saharan Africa (Billah 2015:114). According to UNAIDS (2015:2), sub-Saharan Africa account for 66% of the global total new HIV infections. Women count more than half the total number of people with HIV. Adolescent girls and young women continue to experience elevated HIV risk and vulnerability. Women are disproportionately affected by the epidemic and account for 31% of new infections and such rates are three times higher than in men (Tobin-West, Maduka, Onyekwere & Tella 2013:259).

Botswana is ranked second after Swaziland in terms of high HIV/AIDS prevalence rate. About 390 000 people were estimated to be living with HIV/AIDS in Botswana, with over 23 777 deaths of patients while on treatment (Government of Botswana 2013:12). The Government of Botswana has developed different policies since the first case of HIV was identified in 1985 to guide the development and implementation of the national response to HIV/AIDS. Female condom is one of the family planning methods that the Government of Botswana introduced in 2006, as the only female initiated prevention device that offer dual protection against pregnancy and sexually transmitted infections (STIs) including HIV/AIDS.

1.2 RESEARCH PROBLEM

Polit and Beck (2012:100) define a research problem as a troubling situation which a researcher or a scientific community experiences. The purpose of research is to 'solve' the problem by gathering relevant data.

1.2.1 Background to the problem

In response to the magnitude of the HIV/AIDS problem, the Botswana government embarked broadly on a multi-sectoral response involving government, academic institutions, civil society, non-governmental organisations (NGOs), community-based organisations and the private sector, working together on new infection prevention and programmes to mitigate the negative impacts on the HIV epidemic in the country (Government of Botswana 2011a:15). The Government of Botswana made condoms readily available, free of charge at the health facilities. Despite this intervention, STIs and teenage pregnancy continue to rise among young women. The researcher observed an increase in the number of teenage pregnancies despite the availability of free condoms at the clinics and public places. Although the reasons for the increase in both teenage pregnancy and HIV infections were not clearly known, they could be attributed to among others, to limited use of condoms by young women. Data collected from health facilities in Jwaneng showed that only 811 female condoms were distributed against 86 890 male condoms (Government of Botswana 2012:20).

The female condom has the potential to protect the health of millions of women at risk of STIs and unwanted pregnancy and can thus help to reduce the incidence rate. The study was conducted in Chobe District of Botswana. It revealed that low knowledge, non-availability, inaccessibility and unacceptability contributed directly to the low uptake and utility of the female condom. Furthermore, the study showed that health care workers were not doing enough to promote the female condom given the high number of people without knowledge on its use (Jackalas Kajiso, Liwena, Mangope, Mookodi, Seitiso, Matshidiso & Muza 2010:30). The issue of non-availability and insufficient knowledge among health care providers was supported by Phiri, Rhikhotso, Moagi, Bhana and Jiyane (2015:8). These challenges impact on the success of developing countries such as Botswana to meet the goal of vision 2016 of "no new HIV infection by 2016".

The high percentage of women infected with HIV against the number of men indicates the need for women to effectively protect themselves against STIs including HIV/AIDS. Kaelo and Malema (2014:2) found that the introduction of female condoms in settings where the male condom is also available has resulted in an increased incidence of protected sex acts and a reduction of sexually transmitted infections incidence rates by a quarter. However, according to Botswana 2013 Global AIDS Response Report (Government of Botswana 2013:12), condom use saw decreases among both genders, and across all age groups. Nkobodo (2014:159) argues that the cost and make-up of the female condom influences acceptability.

Botswana continues to have one of the highest HIV prevalence in the world. Although the rate of new HIV infections has dropped, the prevalence rate remains high among certain populations, such as young persons with an estimated 23% of 15-49 years olds being HIV infected (Sarumi & Strode 2015:1). In Jwaneng Township, women continue to record high HIV prevalence rate of 16.1% as compared to 8.3% among males (Government of Botswana 2013:13).

The statistical reports presented to District Multi-Sectoral AIDS Committee (DMSAC) on quarterly basis showed huge numbers of female condoms are expiring in government facilities (Government of Botswana 2012:20). Continued promotion of female condom is important as currently it is the only alternative to male condoms and can provide women with increased control in reproductive health. It is against this background that the researcher intends to conduct a study on the acceptability of female condom among young women aged between 15 and 34 years old in Jwaneng Township.

1.2.2 Statement of the research problem

It is almost a decade since the female condom was introduced in Botswana as the only female initiated method that offers dual protection for STIs, HIV/AIDS and pregnancy. In 2010, the United Nation Population Fund (UNPFA) provided 840 million male condoms and 9.8 million female condoms, mostly to sub-Saharan Africa (UNFPA 2011:10). In Botswana, the 2013 statistics revealed that females continue to record higher HIV prevalence rate of 19.2% compared to 14.1% of their male counterparts (Government of Botswana 2013:4). In Jwaneng, HIV prevalence among females is 16.1% as compared to 8.3% among males (Government of Botswana 2013:13) Data from health facilities in

Jwaneng showed that from January to December 2012, a total of 86 890 male condoms were distributed as compared to 811 female condoms (Government of Botswana 2012:20). The factors related to this low distribution are unknown. Therefore, it was important to study the acceptability of the female condom as measured by the extent of use among young women in Jwaneng.

1.3 PURPOSE OF THE STUDY

The purpose of this study was to determine the acceptability of female condom among young women aged between 15 and 34 years old in Jwaneng and to recommend measures to increase the female condom use.

1.3.1 Objectives of the study

In order to achieve the purpose of the study, the following specific objectives were formulated:

- To determine clients' level of knowledge of female condom
- To examine acceptability of female condom as indicated by the extent of use
- To identify barriers to the use of female condom by young women
- To examine young women's views regarding the female condom
- To recommend measures to increase acceptability and use of the female condom

1.4 RESEARCH QUESTIONS

- What is the extent of female condom acceptability among young women in Jwaneng Township?
- What measures can be implemented to increase the acceptability level of female condoms?

1.5 SIGNIFICANCE OF THE STUDY

Evidence-based interventions are needed to address the challenges and to strengthen the fight against HIV/AIDS and unintended pregnancies in the township. This can be attained through research so findings of this study will inform District Multi-Sectoral AIDS Committee (DMSAC), the health care providers, community leaders and stakeholders if the female condom is accepted and used by young women. The knowledge generated from the study will assist in the formulation of practical, relevant and appropriate health intervention strategies such as health education, promotional messages and community mobilisation. The findings will also assist Technical Advisory Committee (TAC), which is a sub-committee of DMSAC during evidence-based planning process which is done annually.

Through one of its vision 2016 pillars, of a compassionate, just and caring nation, Botswana wishes to attain a zero new infections by 2016. So, the appropriate and regular use of female condoms can assist in the attainment of the goal. There has not been much research conducted on the female condom acceptability and this study will assist in building a body of knowledge on the use, acceptability and views surrounding the female condom. Policies on use of the female condom can be formulated which could be culturally acceptable to Botswana women and men, educational program can be developed from the findings in order to empower the consumers.

1.6 DEFINITION OF KEY CONCEPTS

A **condom** is a barrier contraceptive – it blocks the route a sperm would take to fertilise an egg. They can be made from latex rubber, polyurethane, or lambskin (Peters, Jansen & Van Driel 2010:120). This study defines a condom as a contraceptive device worn by men to cover the penis and line the vagina to prevent the transmission of STIs including HIV/AIDS and unplanned pregnancies.

The female condom is a birth control (contraceptive) device that acts as a barrier to keep sperm from entering the uterus. It protects against pregnancy and STIs (Peters et al 2010:120). This study defines a female condom as a contraceptive device that gives women control over their reproductive rights as well as a preventive method.

Knowledge: *Oxford Online Dictionary* (2010) defines knowledge as “acts, information, and skills acquired through experience or education; the theoretical or practical understanding of a subject, awareness or familiarity gained by experience of a fact or situation”. In this study, knowledge refers to the extent of exposure to female condom health promotion message and understanding its usage.

Acceptability is the potential users’ judgements of satisfaction and willingness to use (Sekhon, Cartwright & Francis 2014:9). This study defines acceptability as positive attitude towards the use of the female condom and the extent of use as a method to prevent unintended pregnancies, STIs and HIV/AIDS.

Barriers: This study defines barriers as situations or problems that prevents or hinders young women from using female condoms.

Young women: This study refers to young women as those between the ages of 15 and 34 years old, residing in Jwaneng Township, accessing services in the three clinics and having been exposed to female condom health promotional messages.

Health promotion comprises behaviour enabling activities by a health promoter to help individuals, families and communities make healthier behaviour choices (Van Wyk 2011:65). In this study, health promotion means messages that are shared with young women to facilitate the use of female condom so as to empower them to make informed decisions and take control of their reproductive health.

1.7 RESEARCH METHODOLOGY

Research methodology is a systematic way to solve a problem, it involves techniques used to structure the study and to gather and analyse information (Polit & Beck 2012:391). Brink, Van der Walt and Van Rensburg (2014:199) further explain that the research methodology informs the reader of how the investigation was carried out; in other words, what the researcher did to solve the research problem or to answer the research question. The study utilised quantitative methodology. The research methodology will be described in detail in chapter 3.

1.7.1 The research design

Mouton (2013:55) defines a research design as a plan or blueprint of how one intends to conduct the research, “a set of guidelines and instructions to be followed in addressing the research problem”. To gain a fuller understanding of the female condom acceptability among young women aged between 15 and 34 years old in Jwaneng Township, the researcher used a non-experimental, descriptive quantitative design. The quantitative approach was appropriate for this study because of the enhanced objectivity; the investigator does not participate in the events under investigation, and is most likely to collect data from a distance and thus allowing for anonymity and honest responses (Brink et al 2014:11).

1.7.2 Population and sample

1.7.2.1 Population

A population is a complete set of persons or objects that possess some common characteristic that is of interest to the researcher (Brink et al 2014:216). The population for this study was young women aged between 15 and 34 years old, residing in Jwaneng Township at the time of the study. The reason for the population criteria was to gather comprehensive data from young women who are sexually active, starting to explore the different methods of family planning and starting new relationships.

1.7.2.2 Sampling and sample

Sampling is the process of selecting cases to represent the entire population so that inferences about the population can be made (Polit & Beck 2012:275). The researcher employed probability sampling to select participants because it allowed the target population an equal and independent chance of being selected and the sample was likely to ensure representativeness of the population. Simple random sampling method was used in recruiting participants. The method was chosen as each individual case in the population theoretically had an equal chance of being selected for the sample (De Vos, Strydom, Fouché & Delport 2014:228). Details of sampling are provided in chapter 3.

1.8 THE RESEARCH SETTING

The study was conducted in a township which is situated in the southern region of Botswana, 176 kilometres from the capital city of Botswana, Gaborone, along the Trans-Kgalagadi Highway. There are three government clinics in Jwaneng Township, of which two operate from 07h30 to 16h30 and the third clinic offers services 24 hours and has a maternity unit.

1.9 DATA COLLECTION

Data collection is the gathering of information to address a research problem (Polit & Beck 2012:725). Structured methods were used to collect data because the methods allowed the researcher to be present during data collection and this enabled the clarification of questions, thereby ensuring collection of valid and relevant data (De Vos et al 2014:188).

1.9.1 Data collection instrument and process

A self-administered, structured Likert scale questionnaire adapted from Chirwa (2011) was used to collect data since it allowed participants a greater sense of anonymity and as such participants were more likely to provide honest answers. The instrument was closed-ended with one open-ended question. The format was standard in the tool and was not dependent on the mood of the interviewer (Brink et al 2014:153). The English questionnaire was translated into Setswana to allow respondents who did not understand English to participate in the study. The Setswana questionnaire was sent to Research Unit of the Ministry of Health for validation. Details of data collection are presented in chapter 3.

1.10 VALIDITY AND RELIABILITY

According to Maree (2014:147), reliability is the degree of consistency or repeatability of a measure or an instrument, which means that if the same instrument is used at different times or administered to different subjects from the same population, the findings should be the same. Validity refers to the ability of a measure or instrument to measure what it is supposed to measure (Maree 2014:147). Various statistical

strategies were utilised to ensure validity and reliability of the study. Both concepts are discussed in detail in chapter 3.

1.11 DATA ANALYSIS

Data analysis entails categorising, ordering, manipulating and summarising the data, and describing them in meaningful terms (Brink et al 2014:177). Data were processed and analysed using the Statistical Package for the Social Sciences (SPSS) version 23 for windows by means of descriptive and inferential statistics to generate useful and comprehensive information about the population of interest. The services of a statistician were sought during data analysis. Open ended data was analysed qualitatively by forming codes and categories. Frequencies were calculated. A detailed description of data analysis is provided in chapter 3.

1.12 ETHICAL CONSIDERATIONS

Since humans will be used as participants in this study, care will be exercised to ensure that their rights are protected. Ethics is a system of moral values that is concerned with the degree to which research procedures adhere to professional, legal, and social obligations to the study participants (Polit & Beck 2012:727). All relevant authorities were contacted to obtain the required permission. Ethical clearance to conduct the study was obtained from University of South Africa and Research Unit of the Ministry of Health in Botswana. This step was taken to safeguard the rights and safety of the young women.

1.12.1 Beneficence/freedom from harm

According to Polit and Beck (2012:720), beneficence is a fundamental ethical principle that seeks to maximise benefits for study participants and prevent harm. The researcher anticipated that the study may cause some discomfort since it addressed issues that invade into participants' sexual behaviour. Therefore, the researcher employed strategies that minimised all types of harm and discomforts, like terminating the study if it appeared that continuing with the study would result in undue distress to participants. The researcher assured the participants that their participation or the information they had provided will not be used against them.

1.12.2 Informed consent

According to Polit and Beck (2012:730), informed consent is an ethical principle that requires researchers to obtain the voluntary participation of subjects, after informing them of possible risks and benefits. Participants were given details of the research so as to make their minds whether to consent or decline to participate in the study.

The researcher also shared with them that data collected will be used for research purposes only. The consent was obtained from the selected participants after permission was granted by the Research Unit in the Ministry of Health and the Head of Jwaneng District Health Management Team. The participants were requested to sign a consent form to signify their acceptance to participate in the study. The contact details of the researcher were availed to participants so that if there was need for clarity or if they had a question, then they can contact her. A formal written assent was sought from parents/guardians of participants under 18 years old.

1.12.3 The right to self-determination

The researcher treated all subjects as autonomous by informing them about the proposed study and they were given the opportunity to volunteer to participate in the study, if they so wish but were not forced to participate. Participants were informed that they have the right to withdraw from the study at any time but no penalty will be imposed on them.

1.12.4 The right to privacy

No information was shared without the participants' knowledge or against their will. The questionnaire was completed in a private room within the facility and precautions to limit unnecessary interference were applied.

1.12.5 Anonymity

The participants' names were not used but instead numbers were attached to the questionnaire. The informed consent form and reference number of the participants were stored separately from the questionnaire.

1.12.6 Confidentiality

The participants were assured that the information provided would be reported in such a way that they would remain anonymous. The data were kept under lock and key and only the researcher had access to the information for the purpose of confidentiality.

1.13 SCOPE AND LIMITATIONS

The scope of the study involved the setting in which the study took place. The scope included the three clinics in Jwaneng Township. Young women accessing services in the three clinics were involved during the study. The study was carried out in an urban setting which may not be representative of other communities like rural areas. People's sexual behaviours may differ from one area to another, as there are influenced by the way individuals are socialised in their communities. Therefore, findings of the study may be generalisable to similar contexts and populations only.

1.14 STRUCTURE OF THE DISSERTATION

This report is divided into five (5) main chapters as follows:

Chapter 1: Orientation to the study

This chapter deals with the introduction and background to the study. Also included in this chapter is the problem statement, purpose of the study, significance of the study, terminologies used in the study and research questions. An introduction of the methodology of the study is made, ethical considerations, scope and limitations are also part of this chapter.

Chapter 2: Literature review

This chapter presents a review of literature on HIV/AIDS prevalence rate globally, in Africa and in Botswana. The management of HIV/AIDS as well as the acceptability of female condom was discussed in detail. It further addresses issues related to making treatment accessible to the vulnerable groups.

Chapter 3: Research design and method

The research methodology used in the study, the research design, study population, sampling method, data collection method, validity and reliability of the tool used, ethical considerations and data analysis method used are described in this chapter.

Chapter 4: Analysis, presentation and description of the research findings

The data analysis and research findings are presented.

Chapter 5: Conclusions and recommendations

Conclusions from the study, limitations of the study, as well as the recommendations are stated in this chapter.

1.15 CONCLUSION

This chapter focused on the introduction to the study, background of the problem statement, the purpose and objectives of the study. The significance of the study, research design and methodology were discussed. The suitability of the quantitative approach to reaching the objectives of the study was explained. Key study concepts were defined and the structure of the dissertation was outlined. The next chapter presents literature review related to the study.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Literature reviews are studies that provide an overview of scholarship in a certain discipline through an analysis of trends and debates (Mouton 2013:179). To provide an overview of existing research evidence, a thorough review of related literature was conducted to get an in-depth understanding of factors related to acceptability of female condom, clients' level of knowledge and barriers to the use of female condom.

According to Mouton (2013:87), it is important to review literature because it ensures that one does not duplicate previous studies and it helps to find out the most widely accepted empirical findings in the field of study. In addition, identification of what is already known will help the researcher to concentrate on areas that can bring new information and knowledge.

2.2 HUMAN IMMUNODEFICIENCY VIRUS/ACQUIRED IMMUNE DEFICIENCY SYNDROME (HIV/AIDS)

As indicated in the previous chapter, HIV/AIDS has become a public health problem that demands integrated global, national and regional approaches in order to enhance the population health outcomes.

2.2.1 Women and HIV/AIDS infection

According to UNAIDS (2015:2), sub-Saharan Africa account for 66% of the global total new HIV infections. Women count more than half the total number of people with HIV. Therefore, it is important for women to be empowered to protect themselves against HIV/AIDS. Women also need good communication and negotiation skills to discuss ways of protection including female condoms with their partners. In that way, they will take control of their reproductive issues. In response to women's disproportionate disease burden, much effort in HIV prevention research has been focused on the

identification of female-initiated barrier methods (Montgomery, Chidanyika, Chipato, Van der Straten 2012:2).

Literature indicates various factors related to women and HIV/AIDS infection, and poverty tends to increase their vulnerability. Korndoerfer (2014:18) cited lack of knowledge on how to prevent infection as well as financial constraints. Power relations between men and women in a relationship were also an issue. Young women often have no choice regarding unprotected sex thus increasing the risk of infection (Korndoerfer 2014:18). Access to protection has become increasingly urgent as the number and relative proportion of women infected with HIV have risen rapidly, especially in sub-Saharan Africa (Peters et al 2010:120).

2.3 MANAGEMENT OF HIV/AIDS IN SUB-SAHARAN AFRICA

As mentioned in the previous chapter, sub-Saharan Africa is faced with the increasing incidence of HIV infections especially among young women. Other countries show a decline in infection rates and much time is wasted as sub-Saharan Africa continuously engages in debates regarding allocation of scarce resources. Proponents of increased spending for HIV prevention clash with those who believe that new allocations should be dedicated to treatment of infected individuals with highly active antiretroviral therapy (HAART). The lives of millions depend on getting the answer right (Marseille, Hofmann & Kahn 2002:1851).

2.3.1 The female condom initiative

Since the beginning of the AIDS epidemic, condoms have been promoted as most efficient. In 1993, the United States Food and Drug Administration (US FDA) approved the female condom as a safe and efficient contraceptive and protective device (Peters et al 2010:119; Tobin-West et al 2014:260). The female condom is a thin sheath or pouch worn by a woman during sex. It entirely lines the vagina and helps to prevent pregnancy and STIs including HIV. It is as effective as the male condom, and possesses unique features that make it a potentially valuable addition to the array of modern protection methods. The female condom can be inserted several hours before sexual intercourse. Moreover, because it is worn by women, its use may increase women's control over their reproductive health (Koster, Bruinderink & Janssens

2015:127). A number of female condom products are currently available to consumers while others are still in development. These products vary in appearance, design, material, and regulatory status. The female condom 1 (FC1) and FC2 female condoms, manufactured by the Female Health Company (FHC), are the most widely distributed female condoms in the world. They are also the only female condoms approved by the US Food and Drug Administration (USFDA) at this time (Peters et al 2010:119).

Despite evidence of its effectiveness, the female condom has continued to face resistance from both women and men. Kaelo and Malema (2014:2) posit that despite extensive condom promotion efforts, condom use in sub-Saharan Africa remains very limited. Ahmed Deperthes, Frederick, Ehler, Kapp, Paladines, Siemerink, Skibiak, Skorochood, Steiner, Townsend and Westley (2012:15) argue that the female condom must be acceptable to both men and women in order to prevent STIs and unwanted pregnancies. Furthermore, they explained that women may be able to negotiate use of the female condom more easily than the male condom, giving them potentially more power to protect themselves in a sexual relationship.

In an attempt to disseminate information on preventive strategies in sub-Saharan Africa, some countries utilised community health workers (CHWs) to assist in the distribution and health promotion on utilisation of female condom. Zimbabwe and Malawi trained male barbers to sensitise their male clients to female condoms, and United Nations Population Fund (UNFPA) conducted focus groups in Guyana and Trinidad and Tobago to better understand men's perceptions and needs regarding the use of female condoms (UNFPA 2011:23). The findings revealed that some men are sceptical or unresponsive toward female condoms.

2.4 FACTORS RELATED TO FEMALE CONDOM USE

2.4.1 Access to female condom information

Health care workers must be trained on the female condom and be supported to ensure that they fully understand it and feel confident and comfortable to promote it to their clients since they can play a pivotal role in increasing women's access to the female condom. Phiri et al (2015:4) revealed that 53% of health care workers lacked the necessary information regarding the use of female condoms and were therefore unable

to educate women appropriately on the use of female condoms. Health care workers in Botswana were trained when the female condom was first introduced to empower them and enable them to provide appropriate and relevant information to the users as well as to promote its use (own experience).

Public awareness has demonstrated to be crucial because some women shared that they would use the female condoms after learning that the female condom could protect them against STIs and more than two thirds reported that they would insist on using it even if their partners refused (Wang Xi, Zhang, Jia, Wang & Cheng 2014:153). About 79% of university students in Rwanda were aware of the female condom and the fact that it can prevent unwanted pregnancies and STIs though its use was very low as only 24% of the students knew how to use it (Valens & Joseph 2013:16; Wang Xi et al 2014:153). Most of the users indicated that they were not knowledgeable about its use and even shared that the method was not well promoted (Chirwa 2011:39; Nkobodo 2014:161). This proves that without educating the users, the uptake of female condom is unlikely to increase. The need to educate users on the correct use of the female condom was further supported by Tobin-West et al (2014:260). They claimed that when women have adequate access to information about the female condom, there might be an improvement on uptake to prevent STIs and pregnancies.

The Government of Botswana has developed health promotion initiatives to encourage the use of the female condom and to educate the public about female condom use. Health promotion campaigns; which include the use of multi-media (newspapers, radio spots and television commercials, use of billboards), and art/drama have been introduced throughout the country, education for service providers and sensitisation of community members is done during workplace wellness campaigns as well as health expositions (own experience).

As female condom is related to STI and HIV/AIDS prevention strategies, the HIV media campaign known as 'Wize up' is used to disseminate accurate and useful information on HIV prevention available to adolescents and youngsters aged 10-24 years. At present, over 5 400 young people are sent weekly cell-phone text messages on ways in which HIV is transmitted, as well as myths concerning HIV/AIDS reduction. Main themes were also discussed on Facebook under the campaign site and on two youth-focused

national radio stations (Morgan-Jarvis 2013:122). The “Abstain, Be faithful and condomise” strategy is still being implemented to reduce the rate of HIV infections.

Carter, Corneille, Hall-Byers, Clark and Younge (2015:111) explored user acceptance of a text-message base health intervention among young African Americans. They concur that dissemination of HIV prevention messages by cell phone text messages was useful. Mobile technology was used to deliver health-based prevention and intervention messages through voice calling, the internet, video messaging and text messaging. This initiative was found to be valuable with younger population given how often they use mobile technology, especially text messaging. Educating women on how the condom is used is important as knowledge helps them to develop positive attitude towards the female condom and thus use the method effectively. This leads to curbing the spread of HIV and reducing the risk of unintended pregnancies as well as making them feel in control of their bodies and their lives.

2.4.2 Issues related to the design of the female condom

However, some women raised concerns around the design of the female condom. They claimed that it is not compatible with their bodies since it was too big, too oily and the material used made noise during sexual act, and thus appealing for a change in their design. Some users complained that they could not afford the female condom since it was expensive and also that the users lacked the necessary negotiation skills to introduce it to their partners. The study findings thus far call for intensifying campaigns to promote the use of the method as a contraceptive and barrier method against HIV/AIDS as its acceptability amongst university students could lead to broader acceptability among the general population (Nkobodo 2014:159; Naidu 2013:29). The issues raised in these studies were likely to affect female condom use and thus needs to be proven further and the necessary measures taken. Therefore, this study is important because there is little that has been done on this study topic despite the high HIV/AIDS prevalence rate in the country.

2.5 ACCEPTABILITY OF FEMALE CONDOM

This study views acceptability as the extent of female condom use and attitudes towards its use. Literature shows differences in levels of female condom acceptability in

developed and developing countries. A systematic review of literature by Ahmed et al (2012:17) shows that 37% to 96% variations of female condom acceptance rates in Asia, Europe, Latin America and North America demonstrated. The studies were conducted in people with varying sexual histories, ages, social situations and economic status. Their conclusion was that when both types of condoms are available, consistent condom users often alternate use of female and male condoms. Therefore, this provides important evidence that the female condom is not just a substitute for the male condom, but is complementary and contributes to increased use of both types of condoms (Ahmed et al 2012:17).

Bogale, Boer and Seydel (2010:854) found that females that use condoms have a significantly higher attitude, perceived a significantly higher subjective norm, a significantly higher level of self-efficacy, felt more vulnerable to HIV infection, and perceived condoms to be more effective in preventing sexually transmitted infections.

There are variations in male and female condom use. The Botswana 2013 AIDS Impact Survey (Government of Botswana 2013:19) found that condom use among 15-24 years old was at 99.5% every time they had sex with non-regular partners in the 12 months preceding to the survey. This may imply that the remaining 8.1% did not use condoms during the last sexual intercourse and also that condoms are not used with regular partners; hence the high HIV prevalence rate among women.

Some studies have identified a number of factors associated with acceptability of female condom (including knowledge related to HIV/STI, risk perception quality of the relationship with the regular partner (You, Lau, Gu, Tsiu, Wang & Kim 2013:1195-1204). The authors argue that acceptability does not always mean actual use. They found relationship between their respondents' acceptability levels and free supply of female condoms. Mantell, West, Sue, Hoffman, Exner, Kelvin and Stein (2011:66) documented challenges with female condom availability, affordability and ease of insertion. Tobin-West et al (2013:263) cited discordance between awareness and the preventive practice of female condom use. They also, found in their study of awareness and acceptability of female condom that the majority of study participants had heard about the female condom and its protective benefits. However, only a few had ever used them. Health care providers can play a significant role in influencing women to use the female condom (Mantell et al 2011:66, 77) argue that the missing link in increasing

acceptability and use of female condom is the role of health care providers, whether they promote the device to clients and their knowledge. They found that male providers were open to the idea of promoting female condom and they made an observation that male providers are an untapped audience.

Peters, Van Driel and Jansen (2014:40) make an interesting finding in their systematic literature review on acceptability of female condom. They argue that the way the concept of acceptance has been operationalised is a key factor influencing the results of acceptability of studies on the female condom. A person who has never used, tried or tested it may find it difficult to accurately judge whether it is comfortable and usable. When programmes created free access to the female condom accompanied by key interventions such as empathic support to women by skilled providers in the period during which women became accustomed to the device, acceptability rates were high (Peters et al 2014:42).

2.5.1 Factors related to acceptability of female condom

Various factors that impact acceptability of female condom have been cited in literature.

2.5.1.1 Socio-cultural factors and power relations

The female condom is a proven effective female controlled HIV prevention device but there are some socio-cultural and economic factors that act as barriers and put women at risk of acquiring HIV. Maticka-Tyndale (2012:66) reports that across multiple diverse cultural groups, men in sub-Saharan Africa control sex and condom use, and view the costs of condom use as far greater than the benefits. Gender inequality and the issue of power relations in which men play dominant roles in decision-making in the family and sometimes exert too much influence on women's decisions leads to women not practicing safe sex (Vouking, Evina & Tadenfok 2014). Some women are subordinates to men in various aspects of their lives, politically, educationally, socially and sexually ,such that when men demands unprotected sex, they will obviously go along with it because they depend on them and put themselves at risk of unintended pregnancy and contracting HIV/AIDS (Koster, Bruinderink & Janssens 2015:128).

Korndoerfer (2014:18) revealed that poverty has also been linked to a lowered fear of contracting HIV/AIDS. Poverty plays a pivotal role in teenage marriage, a factor that leads to the spread of STIs including HIV. Young girls often have no choice about having unprotected sex with their husbands and this makes them vulnerable to contracting HIV from their infected husbands (Korndoerfer 2014:18). In some cultures in Botswana, male promiscuity is tolerated and promoted because men believe having multiple concurrent partnerships prove their manhood. There is an expression they commonly use, which goes, 'a man is like a bull and cannot be confined to the kraal' and 'a man is like an axe he goes around cutting'. These expressions suggest that a man can go around looking for women and have sex as much as he wants. As a result, this fuels the spread of HIV especially if one of the partners is infected.

Some cultures in Botswana, for instance, Basarwa, do not allow a woman to have a say on their sex and reproductive rights as most of them are not economically empowered. As such, women succumb to decisions a man makes in relation to sex matters which in most cases exclude the female condom use (own experience).

Culture is a barrier to female condom use as women who carry condoms are perceived as promiscuous; hence no women would like to be identified as such. In some instances, partners may find no reason or need to use a condom as they believe that they have a well-established relationship based on trust (Valens & Joseph 2013:16; Jackalas et al 2010:24; Koster et al 2015:128). However, women can only succeed with the use of the female condom if they involve their partners when they access family planning services. In Jwaneng, couples are encouraged to attend reproductive health services together so that they can be given the information together, not for the woman to tell her partner. The government has also changed the services name from, "maternal child health – (MCH) services" to "sexual reproductive health – (SRH)" to accommodate males because they felt they were left out.

Rosenthal, Levy and Earnshaw (2012:659) posit that gender roles play a significant role in sexual behavior and involve significant power relations. They argue that the belief that men dominate sexual relations affects both genders. If men believe that they should dominate in this sphere, that may prevent them from opening up to other protection preferences, and that has the potential to reduce interest in female condoms.

2.5.1.2 Religion

Religion has been found to play a significant role in influencing health seeking behaviours of some people. Some religious practices and beliefs impact on the successful use of the female condom because they are prohibited in some churches and if one uses them she is labelled to be immoral and sinful. Chimala (2014) reports that Malawi is said to be one of the countries with low female condom consumption due to cultural and religious beliefs which perceive condom use as sinful, dirty and immoral. In Uganda, religion is taken seriously and provides a protective factor for risky sexual behaviour. The protestant church is the second largest in Uganda; however, it exerts a strong political and social influence on many aspects of public and private life (Agardh, Tumwine & Osterger 2011:3).

Stroebel and Benthem (2012:6) assert that religion plays an important role in Kenya, and moral arguments from church leaders are extremely influential. Therefore, churches are widely seen as some of the most powerful institutions in Kenya when it comes to prevention of AIDS, and NGOs have repeatedly advocated a more active role of the Catholic Church in sexual education and HIV prevention. However, they indicate that The Catholic Church forbids the use of condoms to prevent HIV/AIDS or as a means of family planning. It is evident from the assertions of the authors that if the church modifies its position regarding the use of condoms, that could have a positive effect on the sexual behavior of the followers and contribute to the overall health promotion efforts.

2.6 ACCESSIBILITY OF FEMALE CONDOM TO WOMEN

Accessibility of female condoms means taking female condoms to the users or making female condoms within easy reach. Preventive measures taken by governments ensure that condoms are accessible and available to consumers. In Botswana, both FC1 and FC2 are freely available to all who need them and are made accessible by putting them in strategic places like hotels, bars, public toilets, taking them during outreach services.

Persistent and correct condom use is one of the effective ways of preventing STIs including HIV infection. Despite this, in sub-Saharan Africa, the use of female condom is still influenced by multiple factors as mentioned in the previous sections. Centre for

Health and Gender Equity at UNPFA reports that in United States of America, protected sexual intercourse doubled after the women were counselled and given a supply of female condoms which showed that female condoms were not used because the women were not knowledgeable about its use (UNPFA 2011:23). This depicts the differences between developed and developing nations, where, in developing nations women experience fewer cultural constraints as compared to, for example, sub-Saharan Africa.

According to Holtgrave, Maulsby, Kharfen, Jia, Wu, Opoku, West and Pappas (2012:1115), inadequate information about the product and cost impact the acceptability of the female condom. In Washington DC, female condoms were found to be highly productive use of public health finances, whereas, in sub-Saharan Africa the challenge is scarce financial resources. The Government of Botswana procures female condoms and distribute to health facilities for consumers to access free of charge, but they are not used instead they expire in health facilities as revealed by monthly statistics submitted to the district from health facilities (Government of Botswana 2013:20).

Ghana, Zimbabwe and South Africa reported some level of success with the initiation of the female condom. According to Peters et al (2010:123), the success is attributed to the joint efforts and collaborations between the Female Health Foundation which is contracted by UNFPA to provide support, Female Health Company which manufactures and sells female condoms, Ministries of health and Population Service International, including NGOs. The authors recommend upscale of female condom distribution to make them accessible, available and affordable.

2.7 CONCLUSION

Consistent and proper use of the female condom by both males and females has the potential to protect against the high HIV prevalence rate among women and unintended pregnancies. Studies conducted in different parts of the world show that the female condom is viewed differently; the majority of women in western countries have accepted it as a contraceptive and also protection against sexually transmitted infections, while in developing nations women still face multiple and complex barriers to its use. Chapter 3 discusses the research method used in this study, which includes the research design, sampling, data collection approach and data analysis.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter explains the research design that was followed, the study setting, research methods, the population and the sample selection and size, the data-collection approach and method of data analysis used and lastly the issues of ethical considerations. The purpose of the study was to assess the acceptability of female condom among young women aged 15 to 34 years old accessing family planning services in the three clinics of Jwaneng Township.

3.2 RESEARCH DESIGN

A research design is “a set of guidelines and instructions to be followed in addressing the research problem”. A research design enables the researcher to anticipate what the appropriate research decisions should be so as to maximise the validity of the eventual results (Mouton 2014:107). A non-experimental descriptive quantitative design was adopted for this study to explore the acceptability of female condom among young women aged between 15 and 34 years old in Jwaneng Township. This was the ideal study design because the researcher aimed to assess the knowledge, use, and views of young women towards the use of female condom (Maltby, Williams, McGarry & Day 2010:39).

3.2.1 Quantitative design

According to Polit and Beck (2012:222), quantitative design is a formal, objective, systematic process in which numerical data are used to obtain information about the world. Quantitative researchers move systematic from problem definition to solution to the problem following a series of predetermined stages. They gather empirical data, that is, evidence that is rooted in objective reality (Polit & Beck 2014:8). Non-experimental descriptive designs provide a framework used for planning, implementing and analysing studies. Quantitative design uses structured procedures and formal instruments to

collect the information; it emphasises objectivity in the collection and analysis of the information (Polit & Beck 2012:223). Therefore, quantitative design was chosen for this study because there was no need for control or manipulation of study participants and therefore, neither the intervention, nor the setting was controlled (Brink et al 2014:112).

The aim was to determine the acceptability of the female condom by measuring the extent of use and views of young women in Jwaneng Township. The numerical data were analysed using statistical procedures.

The researcher did not participate in the events under investigations but instead acted as a “bystander” and as such, did not influence the study with personal values, feelings and experiences but collected data from a distance, by using a structured questionnaire (Grove, Burns & Gray 2013:42).

3.2.2 Non-experimental design

Non-experimental designs offer no manipulation of the independent variable and, therefore, no intervention nor is the setting controlled. The study is carried out in a natural setting and phenomena are observed as they occur. The main purpose of non-experimental research is to describe phenomena, and explore and explain the relationships between the variables (Polit & Beck 2014:159). In this study, there was no intervention and manipulation, the intention was to describe the acceptability, use, attitudes/views toward the female condom.

3.2.3 Descriptive design

According to Brink et al (2014:112, 113), descriptive designs describe the variables in order to answer the research question, and there is no intention of establishing a cause-effect relationship. The control provided by the design is described as increasing the probability that the study results are accurate reflections of reality (Grove et al 2013:43).

Descriptive designs are based on the following assumptions:

- The variable exists in the study population as a single variable that is amenable to description.
- There is insufficient existing literature describing the study population of the variable.

In a study where the criteria for external validity cannot be met owing to unknown population parameters, the findings cannot be generalised (Brink & Wood 1998 in Polit & Beck 2012:102).

The design provided a systematic descriptive account of the knowledge regarding female condom, frequency of female condom use, the pattern of use and barriers to use. There were no interventions or attempts made to change the behaviour or conditions of the respondents; the variables were measured as they were (Mouton 2014:110). Therefore, the researcher described and documented the knowledge, frequency of the female condom use, the choices as well as barriers hindering its using quantified the data. The design was appropriate for this study as it allowed the researcher to recognise and document the variables, in this case the acceptability of the female condom.

3.2.4 The study setting

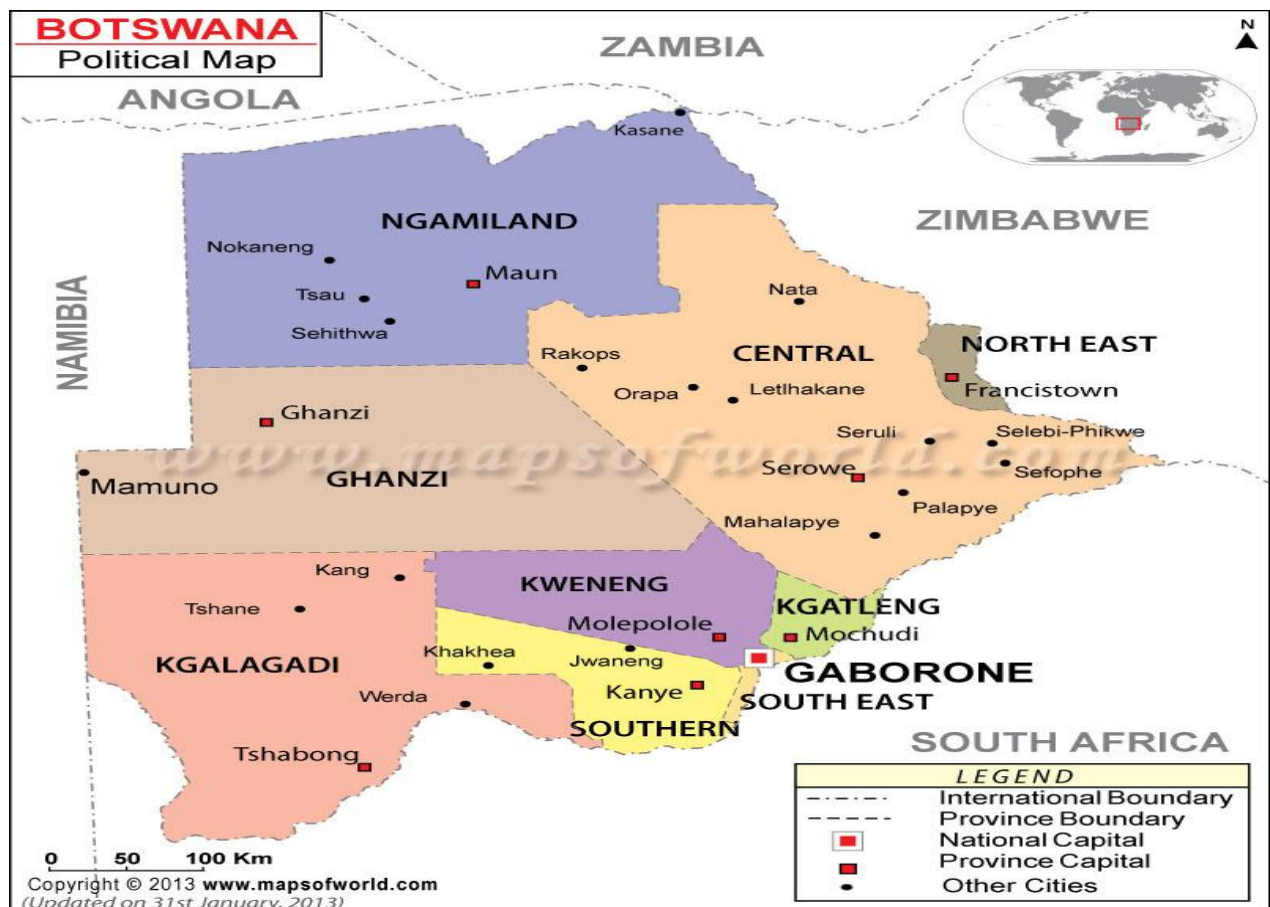


Figure 3.1: Map of Botswana

(Map courtesy of www.mapsofworld.com 2013)

Botswana is divided into 27 health districts, which are managed by District Health Management Team Heads (DHMT Heads). As one of these health districts, Jwaneng Township is mandated to provide integrated preventative, curative and rehabilitative health care services to the community. The study was conducted in Jwaneng Township, which is situated in the southern region of Botswana, about 176 Km from the capital city of Botswana, Gaborone, along the Trans-Kgalagadi Highway. According to 2011 population census, Jwaneng Township has a population of 18008 (9819 males and 8189 females) and it is the second smallest township after Sowa Township in the northern part of Botswana (Government of Botswana 2011a:25).

The township is mostly dominated by males, as shown by the 2011 population census which revealed that 9819 males live in the township against 8189 females, who work in the diamond mining company (De Beers), and several construction companies subcontracted by the mine. Furthermore, there is also an influx of unemployed people who visit the township seeking job opportunities (Government of Botswana 2011b:25). There are three Government health facilities, as well as a mine hospital, which operates as both a private and general hospital and serves as a referral centre for Jwaneng Township clinics and all the surrounding villages. The three facilities that were chosen as study sites were Tshimologo Clinic, Environmental Unit (EU) 7 Clinic and Ditsweletse Clinic, which has a maternity wing. The Maternity Unit caters for women in the township and women from the surrounding facilities where there are no maternity services. The study targeted young women aged 15-34 years residing in Jwaneng Township and assessed the acceptability of female condom.

3.3 RESEARCH METHODS

Polit and Beck (2014:8) point out that research methods are the techniques used to structure a study and to gather and analyse information in a systematic fashion. Research methodology informs the reader of how the investigation was carried out; in other words, what the researcher did to solve the research problem or to answer the research questions. Furthermore, the research methodology considers the population, sampling frame, approach and technique, sample size, data collection method, and data processing and analysis, as well as strategies to enhance methodological integrity and scientific rigour (Brink et al 2014:199).

3.3.1 Population

Population refers to a complete set of persons or objects that possess some common characteristic that is of interest to the researcher (Brink et al 2014:216). In addition, De Vos et al (2014:223) define population as a term that sets boundaries on the study units which are in essence considered as individuals or objects in the universe who possess certain characteristics.

The study targeted young women because they are still sexually active and starting to explore the different methods of family planning as they are starting new relationships while the older ones are experienced with dating and the use of contraceptives. They fall within the age bracket affected by HIV/AIDS in Botswana when compared with their male counterparts as shown by the results of Botswana HIV/AIDS Impact Survey (BAIS IV) (Government of Botswana 2013:5). The researcher further wanted to establish the number of young women who have been exposed to female condom health promotion campaigns and identify any barriers impacting on the use of the female condom.

3.3.1.1 Sampling

Brink et al (2014:132) define sampling as the researcher's process of selecting the sample from a population in order to obtain information regarding a phenomenon in a way that represents the population of interest. The aim of sampling is to get a sample that is representative as possible of the target population (Mouton 2014:110). Therefore, this study targeted young women aged 15 to 34 years old to represent the population of women in Jwaneng Township since getting the whole population to take part in a study is time consuming and expensive and almost impossible because sometimes people do not want to participate in the research, as is their ethical right (Maltby et al 2010:126).

Probability sampling is the selection of sampling units from a population using random procedures (Polit & Beck 2014:180). The use of probability sampling approaches increases the representativeness of the sample, it permits the researcher to estimate the sampling error, reduces bias in sampling and enables the researcher to conduct inferential statistics correctly (Polit & Beck 2014:181). A simple random sampling method was used as young women who met the study eligibility were identified and recruited as they attended the sexual reproductive health clinic services.

A sample framework was created from the family planning register and a random selection of sample with replacement was utilised (Brink et al 2014:135). Selection with replacement, the most conservative random sampling approach provides exactly equal opportunities for each element to be selected. The names were written on a slip with a reference number, which was folded and placed in a container. The name was drawn from the list, recorded and replaced back until the required sample size was reached.

The method was chosen as “each participant had an equal and independent chance of participating in the study. Simple random sampling increases the extent to which the sample is representative of the target population and it reduces sampling error (Brink et al 2014:135).

Inclusion criteria

In this study, the population consisted of all young women aged between 15 and 34 years old accessing family planning services in the three health facilities of Jwaneng Township during the study period. The respondents were selected from the family planning register in all the clinics using probability sampling.

The eligibility criteria for inclusion in the study were:

- Young women aged between 15 years and 34 years old.
- Young women who have been exposed to female condom health promotion campaigns.

3.3.1.2 Sample

A sample is a subset of the population that is selected to represent the population (Brink et al 2014:217). It is part of the whole selected by the researcher to participate in the study (Polit & Beck 2014:177). Quantitative research studies emphasise the need for representative samples and therefore larger samples are usually more representative of the population than smaller samples that produce less accurate estimates. The demographic information that the researcher looks at includes educational level, gender, ethnicity, age and educational level, as these tend to influence study variables

(Polit & Beck 2014:178). Calculation of the sample size of 136 women was obtained by using a Raosoft sample size calculator. It was based on a confidence level of 90%, a 5% margin of error, the population size of 271, which is the number of women who accessed family planning services in the three health facilities in Jwaneng Township last year. The response distribution was 50% (Raosoft Online Sample Size Calculator 2015).

3.3.2 Data collection approach and method

Brink et al (2014:211) refer to data as the piece of information or facts collected during a research study. Furthermore, Polit and Beck (2012:183) define data collection as the gathering of information to address a research problem. Quantitative researchers collect data in a structured manner, as such the researcher gathered data from the respondents by means of a structured questionnaire written in both English and Setswana. The approach allowed the researcher to ask all the respondents the same questions in the questionnaire that allowed objective data to be collected throughout the study (Polit & Beck 2012:184).

3.3.2.1 Research instrument.

A questionnaire is an instrument used to gather self-report data via self-administration of questions (Polit & Beck 2012:183). A structured data-collection approach was adopted using a questionnaire (Annexure E).

A questionnaire was selected as the most appropriate data collection tool for this study because of the following strengths:

- It is a quick way of obtaining data from a large group of people.
- The format is standard for all the participants and is not dependent on the mood of the interviewer.
- Questionnaires are one of the easiest research instruments to test for reliability and validity.
- Large amount of data may be gathered in a relatively short period; that is within reasonable limits of time using the available resources (Brink et al 2014:153).

According to Polit and Beck (2014:189,389), a questionnaire offers complete anonymity. Therefore, the respondents' identities were not requested, which allowed the researcher the opportunity to obtain candid responses. Furthermore, there was no interviewer bias as the interviewer was not there when the questionnaire was completed. The other advantage of using this technique is that questionnaires are much less costly when compared with an interview and they require less time and energy to administer and thus time and money were saved for the researcher. In addition, the respondents felt free to divulge what they consider to be intimate and sensitive information to the researcher since they answered the questionnaire in the absence of the researcher.

3.3.2.2 Development and testing of the data collection instrument

The researcher searched literature about acceptability variables and the relevant information to be included. A structured questionnaire was adapted from Chirwa (2011) and modified extensively to reflect the study objectives, research problem, purpose and the context. The questionnaire contained close-ended questions with one open-ended question to improve clarity and generate adequate data. The items in the questionnaire consisted of statements that needed to be rated on various point Likert scale. The instrument was written in English and translated into the local language (Setswana). The researcher paid attention to the wording to make it clear and simple. Leading questions were avoided and most were stated in positive style (Polit & Beck 2014:189). To maintain face and content validity which may be lost during translation, the instrument was submitted to the Research Unit of the Ministry of Health for validation.

A cover letter for the questionnaire was attached to explain the purpose of the study, the ethical issues with emphasis on anonymity and confidentiality as well as the identity of the researcher and research supervisor. The approximate time required to complete the questionnaire and the availability of the report to the participants if they so wished were also covered.

The statistician edited and cleaned up the questionnaire by eliminating two question items to enhance statistical validity of the tool. Instructions were included at the beginning of the questionnaire and were part of the pilot process to check for clarity and each contained clear instructions on how the respondents should answer the questionnaire. General questions which covered demographic information were

included first, progressing to more specific questions about the female condom. Demographic data were important in this study to seek relationships between various variables and the acceptability of female condom.

Composition of the questionnaire

Section A: Demographic data

This section contained eight questions which elicited demographic data and had questions on the age, number of children, marital and employment status, current occupation, religion as well as sexual profile of the respondents. The purpose is to get a profile of each respondent which will aid in other sections of the study, such as data analysis.

Section B: Knowledge and use of the female condom

This section contained questions meant to elicit the respondents' knowledge of the female condom.

Section C: General views about the female condom

This section contained questions which elicited the views of the respondents concerning the female condom. A five point scale was used, using the frequency responses of strongly agree, agree, neutral, disagree and strongly disagree.

Section D: Choice, promotion and possible recommendations

This section contained questions intended to determine participants' choice, promotion and possible recommendations they could give about the female condom.

The information collected from all the four sections of the questionnaire helped in answering the research question.

The last part contained one open ended question on barriers to the acceptance of the female condom.

3.3.2.3 Data collection process

After obtaining consent and assent from the respondents to participate in the study, the questionnaires were distributed to all eligible respondents to complete on their own without the intervention of the researcher. The consenting process took about 10 minutes. The completed questionnaires were placed in a self-designed box, sealed at the top with an opening big enough to allow the questionnaire to be put inside and were collected by the researcher for analysis. The sources used to identify eligible respondents were family planning registers which were available in all the sexual reproductive health service points and the family planning cards.

3.3.2.4 Ethical considerations

Since humans were used as participants, care was exercised to ensure that their rights are protected. Ethics is a system of moral values that is concerned with the degree to which research procedures adhere to professional, legal, and social obligations to the study participants (Polit & Beck 2014:81).

The researcher obtained ethical approval for the study from the Higher Degrees Committee, Department of Health Studies, UNISA, prior to doing the research (Annexure F). In addition, permission to conduct the research in Jwaneng Township was obtained from the Health Research and Development Division of Ministry of Health (Annexure B). Furthermore, permission and approval to conduct the study was granted by the management of the District Health Management Team (DHMT) in Jwaneng Township (Annexure B).

3.3.2.4.1 Beneficence

According to Polit and Beck (2014:83), beneficence is a fundamental ethical principle that seeks to maximise benefits for study participants and prevent harm. The researcher anticipated that the study may cause some discomfort since it addressed issues that invade into participants' sexual behaviour. Therefore, the researcher employed strategies that minimised all types of harm and discomforts, like terminating the study if it appeared that continuing with the study would result in undue distress to participants.

Therefore, the researcher assured the participants that their participation or the information they had provided will not be used against them.

3.3.2.4.2 Informed consent

According to Polit and Beck (2014:89), informed consent is an ethical principle that requires researchers to obtain the voluntary participation of subjects, after informing them of possible risks and benefits. Participants were given details of the research so as to make their minds whether to consent or decline to participate in the study. The researcher also shared with them that data collected will be used for research purposes only (Annexure C). The consent was obtained from the selected participants after permission was granted by the Research Unit in the Ministry of Health and the Head of Jwaneng District Health Management Team. The participants were requested to sign a consent form to signify their acceptance to participate in the study. The contact details of the researcher were availed to participants so that if there was need for clarity or if they had a question, then they can contact her. A formal written assent was sought from parents/guardians of participants under 18 years old.

3.3.2.4.3 The right to self-determination/Justice

The researcher treated all subjects as autonomous by informing them about the proposed study and they were given the opportunity to volunteer to participate in the study, if they so wish but were not forced to participate. Participants were informed that they have the right to withdraw from the study at any time but a penalty will not be imposed on them. Moreover, participants were requested to sign a consent form signifying their acceptance to participate in the study. For respondents aged less than 18 years old, the caregiver provided a written consent and the respondents assented to participate in the study. In contrast, participants aged 18 years old and above provided written consent on their own. The researcher informed the participants that they have the right to ask questions if they do not understand, to refuse to give information, and to withdraw from the study any time without any coercion from the researcher. The contacts of the researcher were availed to participants so that if there is need for clarity or if they have a question, they can contact her.

3.3.2.4.4 The right to privacy and confidentiality

Since the aim of the researcher was to enable respondents to express themselves freely and to be honest with their experiences, the researcher assured them of confidentiality. The researcher kept all the questionnaires in a lockable and secure file cabinet in the clinic until during data analysis. Reference numbers were allocated to all the questionnaires and the information that was gathered was therefore accessible only to the researcher. No names were reflected on the data collection form for the sake of confidentiality and to maintain anonymity.

3.4 DATA ANALYSIS

Data analysis reduces, organises and gives meaning to the data. The quantitative analysis involves descriptive and statistical techniques (Grove et al 2013:46). The research objectives and questions were used to guide the choice of statistical methods.

The research objectives and questions were used to guide the choice of statistical methods. A coding frame was developed under the guidance of the supervisor. A unique form of labelling was designed to identify various variables and missing data points were identified. Data collected were translated from the questionnaires to excel and then exported to the SPSS version 23 with the assistance of the supervisor to enable the statistician to perform the analysis. A coding frame was developed under the guidance of the supervisor. A unique form of labelling was designed to identify various variables and missing data points were identified. Questions with excessive data loss were eliminated.

Data were verified by the statistician and descriptive and inferential statistical analysis using Statistical Package for the Social Sciences (SPSS) software version 23 for windows was used to calculate, summarise and describe the uptake and patterns of female condom use. The descriptive statistical analysis summarises the statistics that allow the researcher to organise the data in ways that give meaning and facilitate insight, such as frequency distributions and measures of central tendency and dispersion (Grove et al 2013:47). A chi-square test was used to test the significance between respondents' views regarding the female condom and method of contraception. Furthermore, Grove et al (2013:587) indicate that the assumption of the

chi-square is that one datum entry is made for each subject in the sample and that for each variable, the categories are mutually exclusive and exhaustive. Cramer's V test was done to determine the strength of statistical significance. This test is an extension of chi-square used as post-test to determine the strength of the association (Ganyaupfu 2015).

The researcher read data from the open ended section and developed a unique coding system to enable coding and classification. A summary of the number of items each code has been applied to the set of responses was presented as frequencies and percentages. Variables of the study were used for analysis and the frequency tables were presented in the form of graphs and tables in Chapter 4.

3.5 RELIABILITY AND VALIDITY OF THE STUDY

In order to ensure that the results obtained from a research study are of quality, there are some aspects of the data collection tool that need to be assessed, namely; validity and reliability.

3.5.1 Validity of the study

Validity is the ability of an instrument to measure the variable it is intended to measure (Brink et al 2014:109). Validity has two aspects, which are internal and external validity. The authors define internal validity as the degree to which changes in the dependent variable (effect) can be attributed to the independent or experimental variable (cause) (ibid). The extension of the adapted questionnaire was based on the literature review and the objectives of the study to ensure internal validity of the study.

External validity refers to the degree to which the results of the study can be generalised to other people and other settings (Brink et al 2014:111). Therefore, probability sampling was used to enhance external validity since all respondents had an equal chance of being included in the sample and the findings generalised to the population. The statistician was used to analyse the data as a way of enhancing external validity. The validation done by the Research Unit further enhanced the validity of the instrument.

The statistical validity of the items of the research instrument was undertaken using factor analysis data reduction technique. In concurrence with the assessment of sampling adequacy, factor analysis was performed to measure the underlying structure, patterns and hidden dimensions within the dataset. Correspondingly, factor analysis was undertaken to focus on a set of factors that accounted for most of the observed variance in the dataset with regards to acceptability of the female condom among the target respondents. In undertaking the analysis, the sampling adequacy of survey items of the research instrument was measured based on the Keiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy (MSA) criterion. The KMO measures the sampling adequacy which should be greater than 0.5. Given that the computed overall KMO value (=0.669) exceeded the minimum acceptable KMO-MSA value of 0.6; the statistical validity results indicate evidence of statistically acceptable sampling adequacy of the retained survey items of the research instrument used in the study (Ganyaupfu 2015).

3.5.2 Reliability of the study

Reliability refers to the degree to which the instrument can be depended upon to yield consistent results if used repeatedly over time on the same person or if used by two researchers (Brink et al 2014:109). Cronbach's alpha coefficient was statistically measured to assess the extent to which if the same questions were to be asked to same respondents under several times, identical responses could be obtained (Brink et al 2014:228). To improve scale reliability, some items were eliminated from the instrument. The Cronbach's alpha coefficient value ($\alpha=0.741$) for the finally selected items exceeded the minimum acceptable ($\alpha=0.7$) condition of total scale reliability (Ganyaupfu 2015).

The data collection tool was pre-tested. The respondents were drawn from the three health facilities in Jwaneng Township only, and the researcher examined each item for its appropriateness. The aim of the pre-test was to ensure that respondents understand the intended meaning of the questions and that their answers are coherent. Furthermore, it enabled clarifications and modifications of issues needing attention that might come up during this phase of the study before the actual study is conducted. The pre-testers did not participate in the main study and items which seem ambiguous were

modified and further tested for clarity. Reliability was further enhanced by using a five point Likert scale to increase the sensitivity of the measurement.

3.6 CONCLUSION

This chapter discussed the research design and methodology employed in the study. The research design, population, sampling, data collection and data analysis were discussed. The measures taken to ensure ethical considerations of the study were presented. The next chapter is a detailed presentation and discussion of the findings from the research study.

CHAPTER 4

ANALYSIS, PRESENTATION AND DESCRIPTION OF THE RESEARCH FINDINGS

4.1 INTRODUCTION

According to Grove et al (2013:46), analysis is the process of organising and synthesising data so as to answer research questions and test hypotheses. This chapter focuses on the analysis, interpretation and discussion of the results of the study. A quantitative and descriptive study was conducted using a questionnaire-based survey to determine acceptability of the female condom among young women in the age group 15-34 years in Botswana. This chapter presents results on demographic profiles, knowledge, attitude and use of the female condom. The initial 136 sample size targeted was revised based on the family planning registers at the time of the survey. A total of 100 respondents were surveyed using simple random sampling, 95 questionnaires were completed; thus yielding a 95% valid response rate.

4.2 DATA MANAGEMENT AND ANALYSIS

All completed questionnaires were subjected to data cleaning, a process carried out to determine quality of the data provided. Data were entered in a spreadsheet and summary sheets were made for the variables in the questionnaire showing frequencies of particular responses. The summaries were then aggregated to provide the results for the entire sample which are illustrated in frequency tables and graphs. Data were processed and analysed using the SPSS statistical program version 23 for windows with the assistance of a statistician. The responses in Setswana were translated back to English with the assistance of the Research Unit.

RESEARCH RESULTS

4.3 SECTION A: DEMOGRAPHIC DATA

Section A of the questionnaire consisted of nine (9) items, consisting of the respondents' demographic data, such as facility at which respondents are based, age, gender, marital status, number of children, employment status, highest level of educational training, religion and lastly, the number of sexual partners respondents have had in the past six months. The reason for including the biographic elements was to determine whether there were any significant relationships between these elements and acceptability of female condom.

4.3.1 Sample characteristics: Demographic characteristics of respondents

4.3.1.1 Facility nearest to respondents

Figure 4.1 depicts the facilities nearest to where the respondents were based. Of the 95 respondents surveyed, approximately 27% (n=26) were using Ditsweletse Clinic, only 7% (n=7) at Tshimologo Clinic while the majority of the respondents accounting for 65% (n=62) were using EU7 Clinic. The variance in population proportions across clinics indicates the presence of relatively large population in EU7 Clinic region. This is important to note because it will guide health care workers and health planners as to where to focus the most in terms of condom distribution and dissemination of information material, education and counselling.

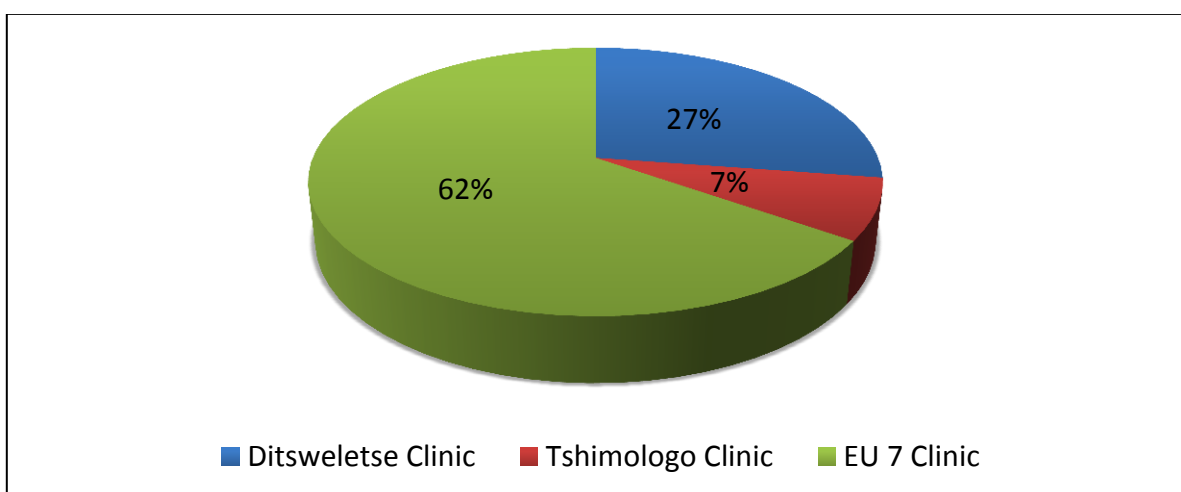


Figure 4.1: Facility nearest to the respondents

4.3.1.2 Age categories of respondents

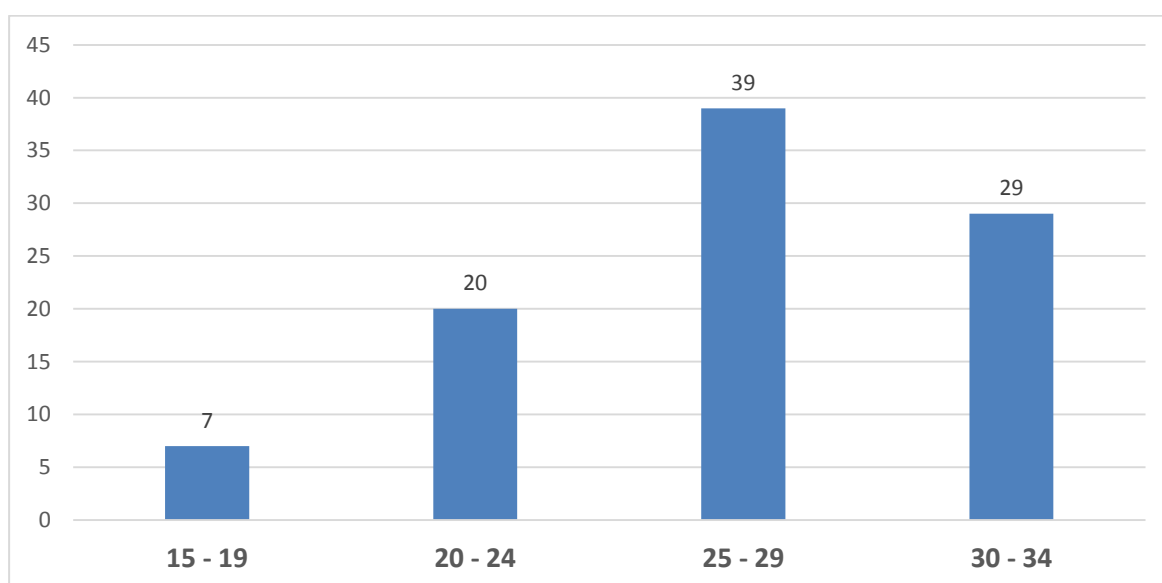


Figure 4.2: Age distribution of the respondents

The oldest respondents 30.5% (n=29) were 30-34 years old and the youngest (7.4%) (n=7) were less than 20 years. Most of them 62% (n=59) were aged between 20 and 29 years of age which was also the median age group, reflecting the working class age and a prime child-bearing age group. Those less than 20 years were only 7% (n=7), suggesting that some of them were still students.

4.3.1.3 Number of respondents' children

About 27% (n=26) of the respondents indicated that they had never had a child up to the time the survey was undertaken; while an equal proportion indicated that they had or have had two children (dead and/or alive). Nearly 11% (n=10) of the respondents indicated that they had three children, while only 1% (n=1) of the respondents had or have had four children. A significant number of the respondents had less than three children 32% (n=30).

4.3.1.4 Marital status

The highest percentage (83%) (n=79) were single women, followed by 15% (n=14) being married women, 1% (n=1) separated while 1% (n=1) was cohabitating. The study assumed that single women can have some form of control over contraception than

married women. Gender inequality and the issue of power relations in which men play dominant roles in decision making in the family sometimes exert more influence on women's decisions leads to women not practising safe sex (Montgomery et al 2012:11-12).

4.3.1.5 Employment status

The largest proportion of about 43% (n=41) respondents indicated that they were not employed, while approximately 32% (n=30) of the respondents reported that they were permanently employed during the time the survey was conducted. Approximately 14% (13) of the respondents indicated that they were self-employed, while about 12% (n=11) reported that they were temporarily employed. The highest percentage of the respondents not employed may denote dependence on other people for survival and family care, thereby, reducing the chances of taking control over contraception.

4.3.1.6 Educational level

Though the majority of these women were unemployed (43%), they had attained a higher level of education (secondary and tertiary level). Of the 95 respondents, 48% (n=46) reported that they possessed tertiary educational qualifications while approximately 46% (n=44) of the respondents reported that they had secondary educational qualifications up to the time the survey was conducted. About 2% (n=2) of the respondents reported that they had primary education while the other 2% (n=2) indicated that they had never studied. This distribution on the level of education revealed that majority of the respondents had some form of education which could probably impact the use of health care services and also the understanding of the instructions on the female condom.

4.3.1.7 Religion

The dominant religion among the survey respondents was Christianity 96% (n=91), only a small number were Muslim 2% (n=2) and 1% (n=1) Hindus. Some religious practices prohibit the use of condoms. As indicated by Chimala (2014), Malawi has low female condom use due to cultural and religious beliefs. There are misconceptions about female condom and morality. The same idea was echoed by the Stoebell and Benthem

(2012:6) that religious beliefs do influence sexual behaviour. In this study, religion did not seem to have had an impact on the use of barrier methods and the majority of respondents indicated that they used male condoms.

4.3.1.8 Sexual partners

From the surveyed respondents, approximately 94% (n=89) of the respondents self-reported that they have had only one sexual partner during the past six months up to the time the survey was conducted. About 5% (n=5) of the respondents reported that they had never had a sexual partner; while 1% (n=1) of the respondents indicated that she has had two sexual partners during the past six months.

4.4 SECTION B: KNOWLEDGE AND USE OF FEMALE CONDOM

4.4.1 Respondents who have heard of the female condom

A substantial large proportion of about 95% (n=90) of the respondents reported that they had heard of a female condom before while only about 5% (n=5) indicated that they had never heard of a female condom before. The results show that the majority of females in Jwaneng Township are generally aware of the existence of the female condom.

4.4.2 Main source of information

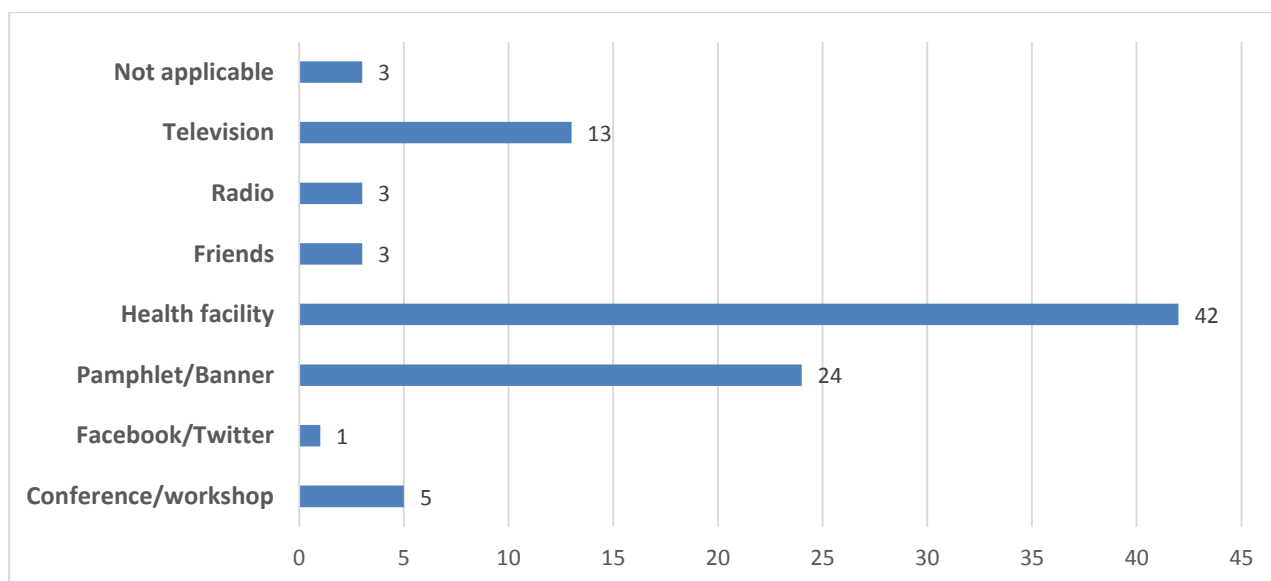


Figure 4.3: Main source of information about the female condom

On analysis of the main source of information about the female condom, approximately 95% (n=90) of the respondents who reported that they had once heard about the female condom, about 44% (n=42) of them reported that their main source of information about the female condom was a health facility. Approximately 25% (n=24) indicated that their main source of information was a pamphlet or banner while about 14% (n=13) of the respondents reported that their main source of information was television. Knowledge plays a very important part as far as the use of female condom is concerned. Jackalas et al (2010:32) argue that users of female condom need to be adequately trained so that they can confidently use it, share the information and even negotiate its use with their partners.

4.4.3 Participants who had seen the female condom

Although 95% (n=90) of the respondents had once heard of the female condom, only 91% (n=86) of them reported that they had seen a female condom before up to the time the survey was conducted. However, only around 9% (n=9) of the respondents having reported that they had never seen it.

4.4.4 Reaction to condom shape and size

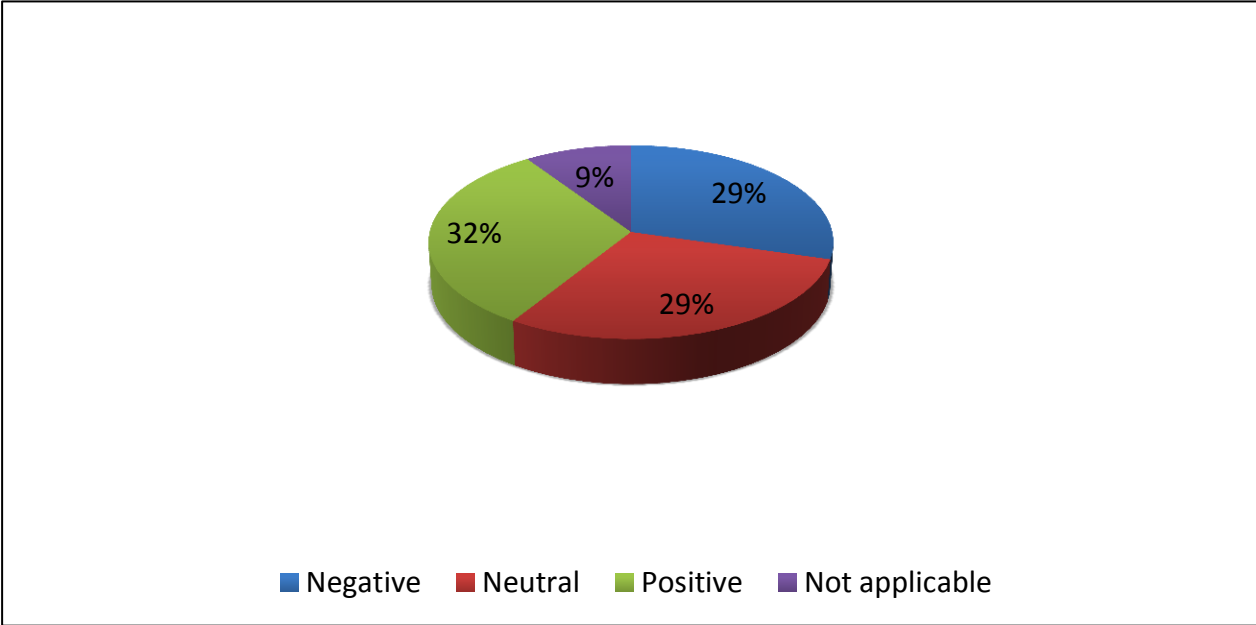


Figure 4.4: First general reaction to female condom shape and size

When the respondents were asked about their first impression when they first saw some features of the female condom like the size, the shape, some respondents were positive (32%) while 29% (n=28) were negative and 29% (n=28) were neutral towards the female condom features. Less than half the respondents were positive about the female condom features which could be another factor contributing to the low female condom uptake.

4.4.5 Methods of contraception

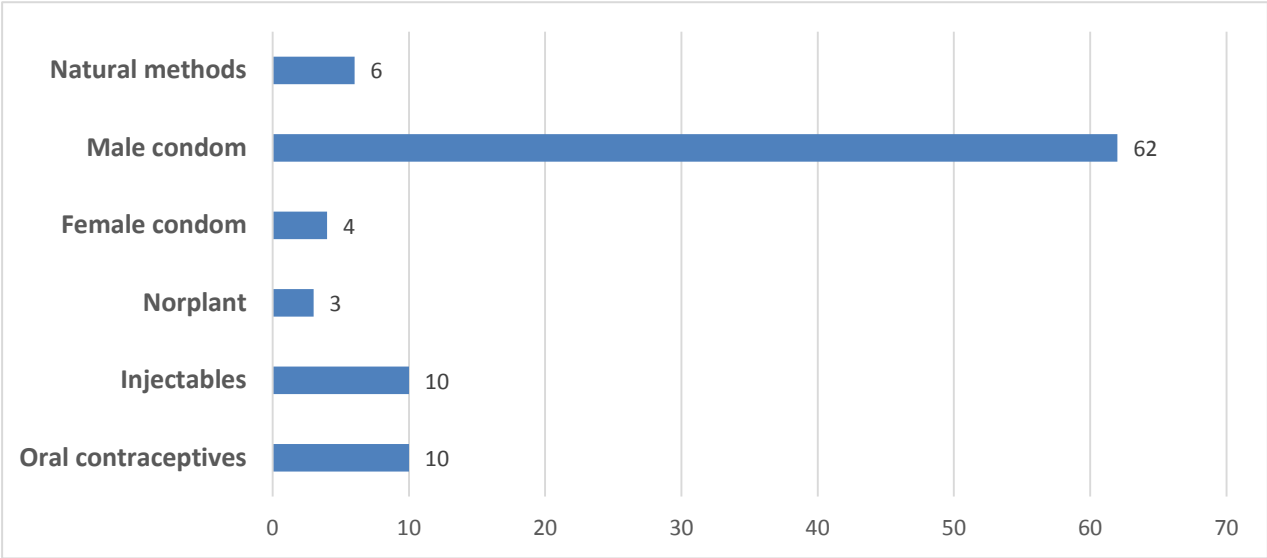


Figure 4.5: Current contraception methods

Figure 4.5 shows a bar chart illustrating the type of family planning method which was used by the respondents. The most common method of family planning used by the respondents was the male condom at 65% (n=62), followed by oral contraceptives and injectable at 11% (10) each. About 6% (n=6) reported that they were using natural methods, about 4% (n=4) of the respondents reported that they were using female condom, and only 3% (n=3) were using Norplant as a form of contraception. These results show that the female condom seemed to be an unpopular method of contraception. Based on the result that, approximately 76% (n=72) of the respondents prefer a male condom to a female condom reveals that preference of a male condom could be a potential barrier to female condom acceptability and use. Since this study was not focused on male condom use, data were not elicited regarding the consistency of use.

Having reported that about 95% (n=90) of the respondents have heard of the female condom, only 91% (n=86) of them reported that they had seen it, the results give a new understanding with only 4% reported to have used it.

4.4.6 Duration of female condom use

The study results show that from the total of four respondents who indicated that they have been using the female condom, only 50% (n=2) reported that they had been using the condom for less than one year. One respondent reported that she has been using the condom for between one and three years while the other participant indicated that she has been using the condom for between three and five years. With regards to the motive to continue using the female condom, one respondent indicated that she would not continue using the condom. The remaining three respondents reported that they would want to continue using the condom.

4.4.7 Use of the female condom

From the total four (n=4) respondents who indicated that they have been using the female condom, 75% (n=3) reported that a demonstration on how to use the female condom was done by a health care worker, while a friend did a demonstration to one (25%). The partners of all the respondents who indicated that they have been using the female condom were not present during the demonstration, and the demonstration on how it is used was done by the respondents (n=2) and health worker (n=2). With regards to the motivation to continue using the female condom, one respondent indicated that she would not continue using the condom. The remaining three respondents reported that they would want to continue using the condom.

Regarding partners' reactions, two males revealed to their female partners that the female condom was easy to use and one male partner indicated that it was difficult to use. Only one male indicated to his partner that he would want to continue using the condom. From the 100% (n=4) users, 50% (n=2) of them indicated that the material used was what they liked most about the female condom while the remaining 50% (n=2) indicated that what they liked most about the female condom was the shape. When the respondents were asked about what they least liked about the female condom, 50%

(n=2) stated the material used while the remaining 50% stated the shape of the female condom.

4.5 SECTION C: GENERAL VIEWS OF THE RESPONDENTS ABOUT THE FEMALE CONDOM

This section discusses the respondents' general views about the female condom.

Table 4.1: General views about female condom

	N	Mean		Std Dev
	Statistic		Std Error	
Use of a female condom needs the cooperation of both the male and the female.	95	4.17	.113	1.098
The female condom empowers women.	95	4.14	.105	1.027
A female condom is effective for STI/HIV prevention.	95	4.11	.088	.856
Information on how female condoms should be used should be readily available.	95	4.63	.064	.620
Female condoms should be easily accessible.	95	4.63	.065	.637
Valid N (list wise)	95			

This section used the scale of 1 to 5. Based on the approximate mean statistics, the respondents 100% (n=95) surveyed on average agreed (mean=4) that the use of female condom requires cooperation of both the male and female, that the female condom empowers women and that the female condom is effective for STI/HIV prevention. Furthermore, respondents strongly agreed (mean=5) that information on how female condoms should be used, should be availed to all in order to improve its use and that female condoms should be available and easily accessible. The variable: A female condom is for promiscuous women was eliminated procedurally based on the Alpha factoring based anti-image correlation matrix to remain with those that had high scores for factor analysis, to improve the statistical validity of the instrument (Ganyaupfu 2015).

The standard error (SE) of the mean statistical estimates was computed to measure the sampling distribution of the mean statistic. In other words, SE statistics measure the variability and accuracy with which a sample represents a population. Lower values of the SE of the mean indicate precise estimates of the population mean and large values of SE of the mean show less precise estimates of the population mean. Technically, the sample size drawn influences the size of the SE of the mean. A larger sample size normally results in a smaller SE of the mean and a more precise estimate (Ganyaupfu 2015). The results in table 4.1 show SE of the mean statistics less than unity, representing that the survey data results computed from the response were generally precise. Similarly, the standard deviation statistics were computed to measure the amount of variation or dispersion of the set of data values away from the mean. The computed standard deviation statistics show that responses from participants demonstrate low variation from the mean; hence the responses of the participants were less spread out.

4.5.1 Female condom and women empowerment

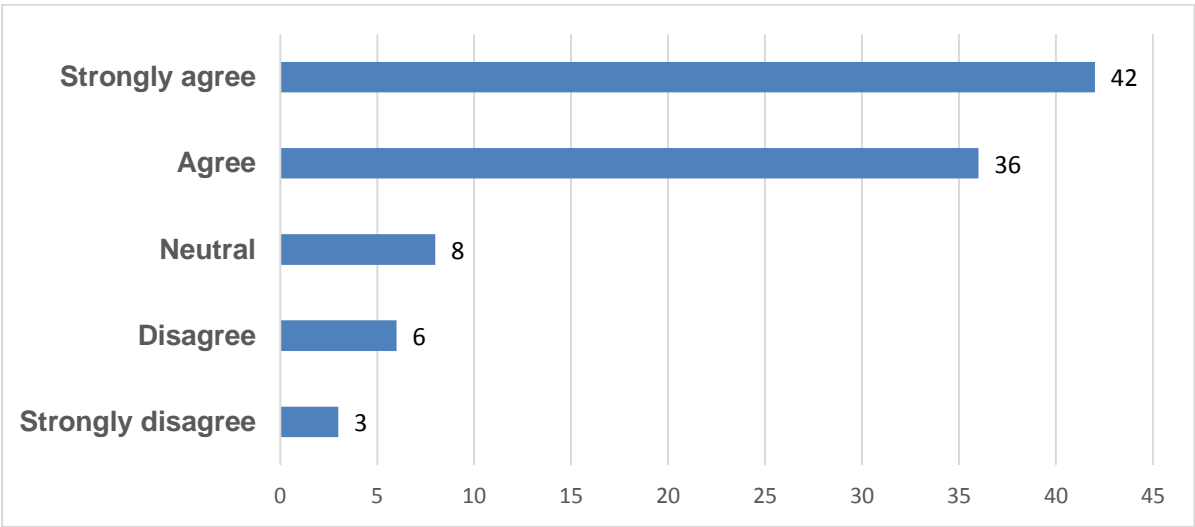


Figure 4.6: Female condom and women empowerment

As shown in figure 4.6, about 44% (n=42) of the respondents strongly agree that a female condom empowers women. While nearly 38% (n=36) agree. About 8% (n=8) remained neutral. Only about 9% (n=9) of the respondents disagreed. The 18% (n=17) who did not agree that the female condom empowers women could have potential issues with female condom use. However, the majority who agree to the empowerment benefit show potential for future use if the impeding factors are minimised.

4.5.2 Choice between male and female condom

With regard to choice and willingness to promote the female condom to other women, 76% (n=72) indicated preference of male condom to a female type, with only 24% (n=23) indicating preference for female condom. Nonetheless, the features and material of a male condom could be the reason why female prefer it to the female condom.

A word of mouth is still regarded as a powerful tool to influence the choices women make regarding method of contraception and prevention of STIs. A high percentage, 55% (n=52) indicated that they would recommend the female condom to other women, meanwhile 43% (n=41) were doubtful if they would, and only 2% (n=2) indicated that they would not. This finding is at odds with the method of contraception respondents use (Figure 4.5).

4.6 BARRIERS TO USE OF FEMALE CONDOM

4.6.1 Female condom material

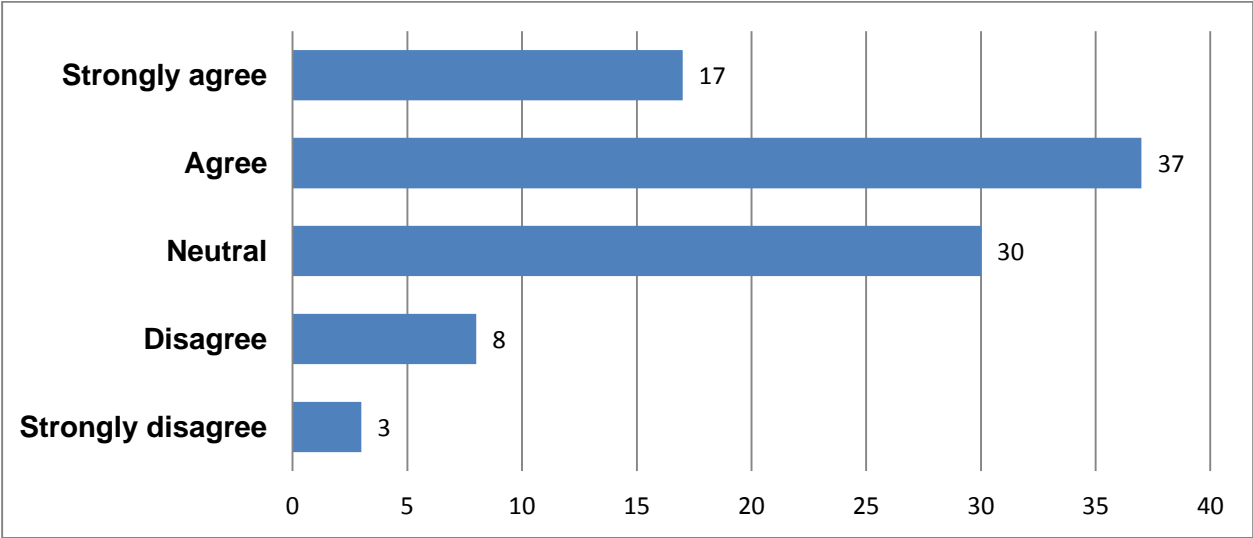


Figure 4.7: Female condom material

Approximately 39% (n=37) of the respondents agreed that the material of female condoms makes them difficult to use, while nearly 18% (n=17) strongly agree with the same perception. Cumulatively, about 57% (n=54) of the female respondents surveyed generally agreed that female condoms are made of a material that is not well accepted. The results potentially suggest that this perception could be a barrier for females to use the condom. Based on, the result that approximately 76% (n=72) (figure 4.5) of the

respondents preferred a male condom to a female condom revealed that the preference of a male condom could be the most significant barrier of female condom acceptability and use.

4.6.2 Female condoms availability and accessibility

About 28% (n=27) agreed that female condoms should always be available and easily accessible. With also approximately 68% (n=65) having strongly agreed to the same perception. Accordingly, the results indicate that the assumed insufficient availability and potential inaccessibility of the female condom stand as significant barriers to its use.

4.6.3 Views regarding female condom promotion

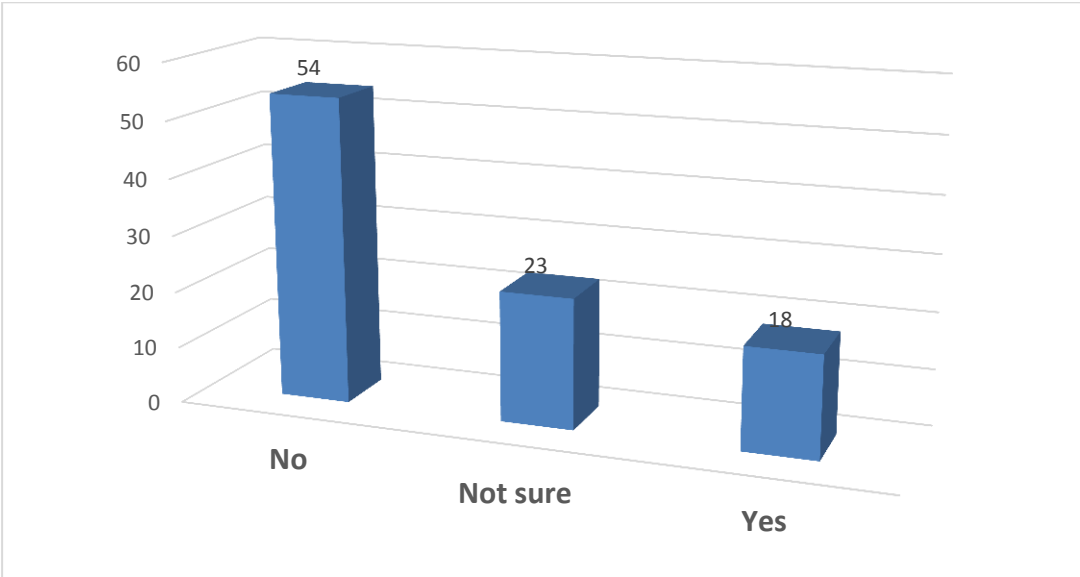


Figure 4.8: Female condom promotion

Based on figure 4.8, nearly 19% (n=18) of the respondents are of the perception that the female condom was promoted enough while about 24% (n=23) were not sure. The view by approximately 57% (n=54) of the respondents that the female condom is not promoted enough reflected that poor promotion of the condom could be a potential barrier to availability and accessibility of the condom.

4.6.4 Views regarding barriers to female condom use

The response from the open ended question on the possible barriers to the use of the female condom was 96% (n=92). 22% (n=20) felt that the device was too big and too long. Whilst, 21% (n=19) indicated that the information on the female condom was not readily available. 15% (n=14) believed that the female condom was not as accessible as the male condom. There were also concerns regarding the material used, respondents felt that the material was too hard 12 % (n=11). A small number 7% (n=6) mentioned the status of women in relationships were low and that prevents them from discussing the possibility of use with the partners. 7% (n=7) believed that it will reduce the enjoyment as they need to make sure that it is inserted correctly and 4% (n=4) were discouraged by the fact that it has to be inserted for a long time prior the sexual activity.

4.7 RELATIONSHIP BETWEEN CONTRACEPTION AND GENERAL VIEW

The chi-square non-parametric test of statistical significance for bivariate tabular analysis was applied to examine whether there is an existing association between the contraception method and general views about the female condom extracted through factor analysis. According to Polit and Beck 2014:235), chi-square is computed by comparing observed frequencies (that is, values observed in the data) and expected frequencies. Chi-square was used because it is appropriate for comparing sets of data that are in the form of nominal level data. There were no statistically significant associations between contraception method and general views about the female condom as shown in table 4.2a below.

Table: 4.2a: Relationship between contraception and general views to female condom

Item	Pearson's χ^2 value	df	Asymp Sig (2-sided)	Decision
Use of female condom needs cooperation of both the male and the female.	23.280	20	0.275	Reject H_0
A female condom empowers women.	22.330	20	0.323	Reject H_0
A female condom is effective for STI/HIV prevention.	14.509	20	0.804	Reject H_0
Information on how female condoms should be used should be availed to all.	6.670	15	0.966	Reject H_0
Female condoms should be easily accessible.	7.213	15	0.951	Reject H_0

¹ Null hypothesis: There is an association between the given item (v) and contraception method

² v is the variable (construct) whose association is measured with contraception method

From the results shown in tables 4.2a and 4.2b, the null of association between differences in each of the items specified and contraception method is rejected for all constructs. The results $p=0.275$ for cooperation in condom use; $p=0.323$ for condom being a tool of women empowerment; $p=0.804$ for female being effective for STI/HIV prevention; $p=0.966$ for information being supposed to be availed to all; and $p=0.951$ for female condom being supposed to be available and easily accessible. All these suggest that there were no statistically significant associations between contraception method and the distinct specified items.

The Cramer's V score criterion was applied for its fitness to determine the strength of association following chi-square tests. Given that the Cramer's V score varies between 0 and 1, a value close to 0 shows weak association between items while values close to 1 indicate strong association between given items (Ganyaupfu 2015).

Table 4.2b: The strength of association: Cramer's V scores

Item	Cramer's V score	Level of association
Use of female condom needs cooperation of both the male and the female.	0.248	Moderate
A female condom empowers women.	0.242	Moderate
A female condom is effective for STI/HIV prevention.	0.195	Weak
Information on how female condoms should be availed to all.	0.153	Very weak
Female condoms should always be easily accessible.	0.159	Weak

Results presented in table 4.2b indicate very weak to moderate associations between contraception method and the items indicated in the table. The Cramer's V score results $V=0.248$ for cooperation in use of female condom; $V=0.248$ for the female condom being a tool for women empowerment show moderate association; $V=0.195$ for female condom being effective in STI/HIV prevention show weak association; $V=0.153$ for information on female condoms being supposed to be availed to all, very weak association; and lastly, $V=0.159$ for female condoms being supposed to be available and easily accessible, all indicate statistically weak associations. The choice between using a male condom and female with a factor loading = 0.824 in factor 2 indicates that the respective items had the highest influence on acceptability of female condom among women in the 15-34 years age group.

4.8 CONCLUSION

This chapter discussed results obtained from the data analysis undertaken on acceptability of the female condom among women in Jwaneng Township. Descriptive statistics were presented in the form of tables, pie charts, bar charts and percentages. The results of the study revealed that female condoms were not accepted by women as indicated by the low condom uptake, much as the majority of the women had heard about the female condom and had seen it. The relationship between the method of contraception and views regarding the female condom were weak. The next chapter discusses the conclusions drawn, limitations that occurred during the study and recommendations made.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter concludes the report by discussing the results, conclusions and limitations of the study, as well as the recommendations. This study intended to find answers for the following research questions:

- What is the extent of female condom acceptability among young women in Jwaneng Township?
- What measures can be implemented to increase the acceptability level of female condoms?

This study was based on the premise that women are mostly affected by HIV than their male counterparts and that the female condom gives women some control over their reproductive health. Therefore, it was important to know the level of female condom acceptability among young women.

5.2 RESEARCH DESIGN AND METHOD

The study used structured and systemic methods to investigate the acceptability of the female condom among young women aged between 15-34 years of age accessing health services in the three clinics in Jwaneng Township. Non-experimental descriptive quantitative design was used, therefore, there was no manipulation of variables. Numerical data were manipulated through statistical procedures for the purposes of describing the extent of acceptability and significant relationships between variables.

5.3 SUMMARY AND INTERPRETATION OF THE RESEARCH FINDINGS

The purpose of the study was to determine the acceptability of female condom among young women aged between 15-34 years old in Jwaneng Township and to recommend measures to increase the female condom use.

5.3.1 Demographic data and use of female condom

In this study, 41% of the respondents were aged between 25 and 29 years of age, which was also the median age group. This age group may be limited by insufficient resources which may restrict their ability to negotiate the use of the female condom or even safer sex and thus exposing them to high risk of being infected by HIV/AIDS. The study results showed that the use of the female condom was very low across all age groups, educational level, religion and marital status. An overwhelming 83% of the participants were single and had one partner, which may indicate that they were aware of the risk of multiple concurrent partnerships and the risk of being infected in the process. Of the four (4) participants who used the female condom, three (3) were between the age of 30-34 and one (1) between 20 and 24 years. This age group fall within the childbearing age and the group that is still sexually active. Therefore, the use of the female condom may be seen as a positive step as it is a dual method which protects against unintended pregnancies and the transmission of sexually transmitted infections. Three (3) had tertiary education, and they were Christians. All were residing near and using EU7 clinic. The number of users was small to make inferences regarding the use of female condom and the demographic variables mentioned. However, there seemed to be some form of relationship between educational level and use of the female condom as three (3) out of four (4) had tertiary level education. Religion did not seem to have any influence on the use of barrier methods as 99% of the respondents were affiliated to some form of religion.

The majority (95%) of the respondents had higher education (secondary and tertiary). The results are supported by the findings of BAIS IV study (Government of Botswana 2013:7) that 85.9% of the adult population aged 15 years and above in Botswana was estimated to be literate. Given the high number of women with secondary and tertiary education, one would have expected the female condom uptake to be higher because they can read about it and also use modern technology like the internet to access the information about the female condoms. The fact that the majority used male condom: 65% (n=62) might be indicative of awareness and knowledge of preventive benefits. However, it is not known whether the respondents who were using male condom or their partners initiated this form of protection. The finding will need further exploration regarding the decision to use make condom.

Employment could have had a significant influence on the choice of barrier methods. The rate of unemployment and marital status shown in this study might mean that the women were dependent on others for a living and thus reducing the chance of using the female condom as it is assumed that they may have low bargaining powers.

5.3.2 Knowledge and extent of female condom use

In this study, the majority of the respondents reported that they had heard of a female condom, and the biggest source of the health promotion was the clinic and health promotion material. Yet, only 4% (n=4) used it; and the average duration of use was 1.5 years. This indicated that they had some form of knowledge about the female condom and the local health facilities were promoting it, albeit, not enough, according to the respondents. It showed that more still needs to be done in marketing the condom.

The majority, 70% of the respondents had a negative and neutral reaction to seeing the female condom. The reaction to the condom features could be attributed to the fact that they did not have enough information about the female condom, as the study believes that in order for women to claim authority in female condoms, they must have used it. Wang et al (2014:153) could also not find any correlation between knowledge and use of the female condom in China. Their study revealed that 26.9% of women had previously heard of the female condom, 10.3% understood its function and method of use and only 0.1% used it. This shows that in general, women hear of the female condom, they see it, yet the usage remains low.

It is evident from the findings that the male condom is the most preferred method of prevention, yet usage is almost entirely reliant on the initiation and cooperation of the male sexual partner. When the respondents were asked if they would recommend the female condom to other women, their response was positive. As mentioned earlier, that assertion may denote that they had the knowledge that the female condom could prevent unintended pregnancies and STI much as it was not their preferred method of contraception. There could have been other variables involved in the low usage.

5.3.2.1 Use of the female condom

The continuity of using the female condom depends on experiences with the device. Some of the women who used the female condom reported that it was easy to use, others said it was difficult. Three indicated that they would continue using it. This study assumes that the presence or inclusion of the partners in the demonstration could have had an impact on the continuity of female condom use. The shape and material used seemed to have had an influence on the continuity of use.

5.3.3 General views about the female condom

The views of the respondents towards the female condom play an important role in influencing the promotion, distribution and utilisation of the female condom to prevent sexually transmitted infections and unplanned pregnancies. The majority of the respondents agreed that a female condom empowers women, they were educated. However, the level of education did not have any effect on their attitudes toward the female condom as indicated by the level of use. Yet, they believed it is an empowerment tool and puts women in control.

5.3.4 Barriers to use of female condom

The features of the female condom, such as the size and shape could be a reason why females preferred the male condom, as indicated by the few who used it. The view by the majority that the female condom is not promoted enough could reflect some fundamental challenges at the health care facilities and this could be a contributory factor to low usage. The fact that the majority of women thought the female condom should be readily accessible and available could mean that it was not readily available and accessible. The shape and size of the condom, having to insert it hours before the sexual activity, and the material were also cited as barriers. Nkobodo (2014:157) listed the following as barriers to successful implementation of the female condom initiative:

- The fact that the female condom has to be inserted well in advance before sexual intercourse.
- Some people find the female condom to be irritatingly noisy during sex.
- The female condom is loose, as such is not user friendly.

- Women do not have much say in terms of decision-making.
- Lack of community education on how it is used.

This study assumes that all the barriers to the uptake of the female condom can be overcome with proper promotion of the method. Though the male condom remains the most acceptable, the need for other methods like the female condom still exists.

The respondents in this study indicated that use of the female condom necessitated cooperation of the male partner, which may be indicative of some power dynamic between men and women. Montgomery et al (2012:12) support this finding and argue that HIV prevention, in this case through the use of female condoms, is nested within a household which is male dominated. Therefore, the approval and involvement of partners is important. Since female condoms are woman-controlled protective measures, their acceptability level becomes relevant in heterosexual relations.

5.3.5 The relationship between demographics and attitude toward female condom

The demographic information was used as a control variable. Data indicated that more women aged between 25-29 years participated in this study. There was no significant relationship between attitude and method of contraception. The two variables were chosen because the researcher sought to examine whether attitude as measured by the specific items might be associated with the extent of acceptability of the female condom.

5.4 RECOMMENDATIONS

The recommendations are based on findings from chapter 4.

5.4.1 Health policy

The results of this study will help policy makers, sexual reproductive health (SRH) unit of the Ministry of Health and practitioners at large with a basis on which to build on and improve available promotional strategies to improve female condom uptake. Therefore, it is recommended that:

- SRH unit of the Ministry of Health should develop new strategies to promote the female condom to increase reach and accessibility, with the intent to increase utilisation in order to reduce the transmission of HIV/AIDS and other STIs.
- Policies regarding availability of female condoms in schools may require a review and modification.
- There should be plans to monitor and evaluate the effectiveness of the current strategies.

5.4.2 Health promotion

Since female condoms are available in health facilities and other public areas, intensive health education to the public at large should be done with demonstrations on insertion, removal and disposal of the female condom. Therefore, it is recommended that:

- Health professionals should be empowered with adequate knowledge and skills to promote the female condom and to be in a position to offer demonstrations with confidence.
- Community leaders like politicians, traditional leaders (dikgosi) and religious leaders should be offered platforms for communication and advocacy, engaged and empowered through seminars, consultative meetings, media briefings, community performances and marches.
- Involvement of men in all health promotion campaigns, encourage men to participate actively.
- Peer educators and community volunteers should be empowered and used to disseminate the information and condoms to the public.
- Female condoms must be visible in all places that women visit.

5.4.3 Further research

This study focused only on the extent of acceptability and generated data on usage of female condom. The researcher makes the following recommendations regarding further research:

- Quantitative and qualitative research studies may be done to find out factors that may increase the acceptability of female condom among women.
- Studies that target male population may be beneficial to address the power differentials within families/partners.
- Alternative methods to reduce the cost and improve distribution of female condoms could be explored.

5.5 CONTRIBUTIONS OF THE STUDY

This study has confirmed low utilisation of the female condom in Jwaneng Township, consistent with other studies in Botswana. The benefit of empowering women over their sexual health has not been attained. The majority of women have heard and seen the female condom. However, only a small percentage was using it. These findings suggest that the female condom is not acceptable among women in Jwaneng Township irrespective of the level of education, employment status, marital status and religious beliefs. A few variables were identified as barriers to the use of the female condom. The findings will therefore assist the Ministry of Health to develop effective strategies or measures to remove the barriers to acceptability of female condom.

5.6 LIMITATIONS OF THE STUDY

Some limitations of the study are noted. This study focused only on the extent of acceptability as indicated by use of the female condom. Other factors were excluded. This could have resulted in generation of limited data. However, the statistical analyses strengthened the findings. There was a possibility of sample bias because participants were only women aged between 15 years and 34 years of age living in Jwaneng Township, which is an urban setting that could not reflect experiences of women from a different setting such as a rural area. The statistical tests conducted overcame any limitations that this study might have had.

5.7 CONCLUSIONS

Acceptability of the female condom involves complex factors. Attitude, knowledge, power relations and socio-cultural factors play a role in the extent to which women would want to try or use it. Level of education and religion did not have any significant

impact on the choice of contraception as majority of women used the male condom. The study concludes that women in Jwaneng Township had access to information about the female condom and they were aware of the preventive benefits. However, this did not translate to increased utilisation. The study highlights the significant challenges of availability, shape, material, lack of information of female condom in Jwaneng. There might be a need to package health promotion differently for different age groups.

REFERENCES

Agardh, A, Tumwine, G, Ostergen, P-O. 2011. *The impact of socio-demographic and religious factors upon sexual behaviour among Ugandan University students*. PLoS ONE 6(8): e23670. Doi:10.1371/journal.pone.0023670

Ahmed, K, Deperthes, B, Frederick, B, Ehler, S, Kapp, N, Paladines, C, Siemerink, MC, Skibiak, J, Skorochood, B, Steiner, M, Townsend, J & Westley, E. 2012. *Contraceptive commodities for women's health*. Unfpa.

From: <https://www.unfpa.org/sites/default/files/pub-pdf/UN> (accessed 21 June 2015).

Billah, M. 2015. *Healthcare seeking practices of people living with HIV/AIDS (PLWHIV) in Bangladesh*. *HIV/AIDS Review* 14(4):114-118.

Bogale, GW, Boer, H & Seydel, ER. 2010. *Condom use among low literature, rural females in Ethiopia: The role of vulnerability to HIV infection, condom attitude, and self-efficacy*. *AIDS Care* 22 (97)851-857.

Brink, H, Van der Walt, C & Van Rensburg, G. 2014. *Fundamentals of research methodology for healthcare professionals*. 3rd edition. Cape Town: Juta.

Carter, L, Corneille, M, Hall-Byers, NM, Clark, T & Younge, SN. 2015. *Exploring user acceptance of a text-message base health intervention among young African Americans*. *Transactions on Human Computer interaction*.7 (3): 110-124.

Chimala, C. 2014. *Cultural and religious perception dwindling female condom uptake*. Malawi News Agency online. September:17. From: www.manaonline.gov.mw/index.php (accessed 21 June 2015).

Chirwa, L. 2011. *Acceptability of the female condom by female health workers in Francistown, Botswana*. The degree of Master of Philosophy (HIV/AIDS Management). University of Stellenbosch. Cape Town.

From: <http://scholar.sun.ac.za/handle/10019.1/6585> (accessed 12 June 2015).

De Vos, AS, Strydom, H, Fouché, CB & Delpont, CSL. 2014. *Research at grass roots: for the social sciences and human service professions*. 4th edition. Pretoria: Van Schaik.

Ganyaupfu, E. 2015. Correspondence. October, November 2015.

Government of Botswana. 2011a. *Population and housing census preliminary results brief*. Gaborone: Government Printers.

Government of Botswana. 2011b. *Second generation HIV/AIDS antenatal sentinel surveillance technical report*. Ministry of Health in collaboration with other development partners. Gaborone: Government Printers.

Government of Botswana. 2012. *Family planning register*. Gaborone: Government Printers.

Government of Botswana. 2013. *AIDS Impact Study IV*. Gaborone: Government Printers.

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

Hoffman, S, Mantel, J, Exner, T & Stein, Z. 2004. *The future of the female condom*. International Family Planning Perspectives 30(3):139-145.

Holtgrave, DR, Maulsby, C, Kharfen M, Jia, Y, Wu, C, Opoku J, West, T & Pappas, G. 2012. *Cost-utility analysis of a female condom promotion program in Washington DC*. AIDS Behaviour 16:1115-1120.

Jackalas, C, Kajiso, E, Liwena, V, Mangope, M, Mookodi, T, Seitiso, P, Matshidiso, E & Muza, C. 2010. Factors contributing to the low uptake of female condoms in Chobe District of Botswana. Unpublished report to Chobe District Council.

Kaelo, G & Malema, BW. 2014 *Female condoms as a preventive measure against HIV/AIDS infection among university students in Gaborone, Botswana*. Open Access

Library Journal 1:e538. From: <http://dx.doi.org/10.4236/oalib.1100538> (accessed 10 June 2015).

Korndoerfer, TL. 2014. *The environmental challenge of HIV/AIDS: A perspective on the importance of addressing HIV for environmental sustainability in Sub-Saharan Africa. International Journal of Ecology and Eco Solution* 1(1):16-22.

Koster, W, Bruinderink, MG & Janssens, W. 2015. *Empowering women or pleasing men? Analysing male views on female condoms use in Zimbabwe, Nigeria and Cameroon. International Perspectives on Sexual Health and Reproductive Health* 41(3):126-135.

Mantell, EJ, West, BS, Sue, K, Hoffman, S, Exner, TM, Kelvin, E & Stein, ZA. 2011. *Health care providers: A missing link in understanding acceptability of female condom. AIDS Education and Prevention* 23(1):65-77.

Maree, K. 2014. *First steps in research*. Pretoria: Van Schaik.

Marseille, E, Hofmann, PB & Kahn, JG. 2002. *HIV prevention before HAART in sub-Saharan Africa. The Lancet* 359:1851-1856.

Maticka-Tyndale, E. 2012. Condoms in Sub-Saharan Africa. *Sexual Health* 9:59-72.

Maltby, J, Williams, G, McGarry, J & Day, L. 2010. *Research methods for nursing and healthcare*. Great Britain: Pearson.

Montgomery, ET, Chidanyila, A, Chipato, T & Van der Straten A. 2012. Sharing the trousers: gender roles and relationship in an HIV-prevention trial in Zimbabwe. *Culture, health and sexuality: An international for research, intervention and care*. DOI:10.1080/13691058.2012.69791.

Morgan-Jarvis, L. 2013. *Botswana review of commerce and industry*. Gaborone: B & T Directories.

Mouton, J. 2013. *How to succeed in your master's and doctoral studies. A South African Guide and Resource book*. Pretoria: Van Schaik.

Mouton, J. 2014. *Understanding social research*. Pretoria: Van Schaik.

Naidu, M. 2013. *Perceptions around second generation female condoms: reporting on women's experiences*. *Anthropological Notebooks* 19(1):25-34.

Njau, B, Mwakalo, V & Mushi, D. 2013. *Correlates of use of condoms among sexually active youth*. Southern Highlands: Tanzania.

From: <http://sgo.sgepub.com/content/3/2/2158244013491406> (accessed 7 February 2016).

Nkobodo, TC. 2014. *Predictors of intentions not to use the female condom among University of Botswana students*. *Social Sciences* 3(5):153-161.

Oxford Online Dictionary. 2010. Sv "knowledge".

From: <http://www.oxforddictionaries.com/definition/english/knowledge> (accessed 2 April 2015).

Peters, A, Jansen, W & Van Driel, F. 2010. *The female condom: the international denial of a strong potential*. *Reproductive Health Matters* 18(35):119-128.

Peters, A, Van Driel, F & Jansen, W. 2014. *Acceptability of the female condom by sub-Saharan African Women: A literature review*. *African Journal of Reproductive Health* 18(4):35.

Phiri, RR, Rhikhotso, R, Moagi, MM, Bhana, VM & Jiyane, PM. 2015. *Accessibility and availability of female condom 2: Healthcare providers' perspective*. *Curationis* 38(2). Art. #1533. From: <http://dx.doi.org/10.4102/curationis.v38i2.1533> (accessed 25 November 2015).

Polit, DF & Beck, CT. 2012. *Nursing research: generating and assessing evidence for nursing practice*. 9th edition. Philadelphia: JB Lippincott.

Polit, DF & Beck, CT. 2014. *Essential of Nursing Research. Appraising Evidence for Nursing Practice*. 8th edition. Philadelphia: JB Lippincott.

Raosoft Online Sample Size Calculator. 2015.

From: <http://www.raosoft.com/samplesize.html> (accessed 20 April 2015).

Rosenthal, L, Levy, SR, & Earnshaw, VA. 2012. Social dominance orientation relates to believing men should dominate sexually, sexual self-efficacy and taking free female condoms among undergraduate women and men. *National Institute of Health Manuscript* 67(11-12):659-669.

Sarumi, RO & Strode, AE. 2015. New law on HIV testing in Botswana: the implications for healthcare professionals. *S.Afr J HIV Med*. 2015:16(1)337.

Sekhon, M, Cartwright, M & Francis, JJ. 2014. *How has acceptability of healthcare interventions been defined and assessed? An overview of systematic reviews*. Paper read at UK society for Behavioural Medicine Conference. December 2014. Academic excellence for business and the professions: London.

Stroebel, J & Van Benthem, A. 2012. *The power of the church – the role of Roman Catholic teaching in the transmission of HIV*. From: <http://ssrn.com/abstract=2018071> (accessed 28 January 2016).

Tobin-west, CI, Maduka, O, Onyekwere, VN & Tella, AD. 2014. *Awareness, acceptability, and use of female condoms among university students in Nigeria: implications for STI/HIV prevention*. *International Journal Adolescent Medical Health* 26(2): 259-265.

United Nations Joint Programme on HIV/AIDS. 2015. *Report on the Global AIDS epidemic*.

From:

http://www.unaids.org/sites/default/files/media_asset/JC2702_GARPR2015guidelines_en.pdf (accessed 25 September 2015)

United Nations Population Fund. 2011. *Broad activity achievement report*. UNPFA.
From:
http://www.unaids.org/sites/default/files/en/media/unaids/contentassets/documents/document/2012/ubw2010-2011/UNFPA_2010-2011BARReport.pdf (accessed 25 September 2015).

Valens, M & Joseph, N. 2013. *Knowledge and attitude to female condom use among undergraduates of Kigali health institute*. *Rwanda Journal of Health Science* 2(1):16-25.

Van Wyk, NC. 2011. *Nursing in the community*. Cape Town: Pearson.

Vouking, MZ, Evina, CD, and Tadenfok, CN. 2014. *Male involvement in family planning decision making in Sub-Saharan Africa-what the evidence suggest*. *The Pan African Medical Journal*. 2014:19:349. doi:10.11604/pamj.2014.19.349.5090

Wang, X, Xi, M, Zhang, L, Jia, L, Wang, Y & Cheng, Y. 2014. *Awareness of female condoms and failures reported with two different types in China*. *International Journal of Gynaecology and Obstetrics* 128:152-156.

You, H, Lau, JT, GU, J, Tsiu, HY, Wang Z & Kim, JH. 2013. *Awareness and acceptability of female condoms among monogamous Hong Kong Chinese female sexually transmitted infection patients*. *AIDS Behavior* 17:1195-1204.

INTERNET SOURCE

Map courtesy of www.mapsofworld.com 2013 (accessed 12 March 2015).

ANNEXURE A: APPLICATION TO CONDUCT RESEARCH

LETTER SEEKING CONSENT TO CONDUCT RESEARCH IN THE HEALTH FACILITIES IN JWANENG

P/Bag 023

Jwaneng

24th September 2014

District Health Management Team Head

P/Bag 023

Jwaneng

RE: APPLICATION TO CONDUCT A RESEARCH STUDY

I am currently studying for the Masters in Nursing Sciences (MA NSC) with the University of South Africa, and I am expected to conduct a research study as a requirement for the qualification. I am therefore requesting for a permission to conduct this study in the three health facilities in Jwaneng Township.

The topic for my research is: “the acceptability of female condoms among young women aged between 15 34 years in Jwaneng”. The study has been necessitated by the high HIV prevalence rate among women as reported by the Botswana HIV/AIDS Impact Study of 2013 (BAIS IV) and the high rate of teenage pregnancy in the township as shown by statistical data from the health facilities. The study will employ quantitative, contextual and descriptive design which involves the use of structured questionnaire to collect data to assess the acceptability of female condom among young women in Jwaneng.

The study will benefit the authorities and stakeholders in the following ways:

- Know the clients’ level of uptake of female condom.
- Will help the relevant departments to examine available female condom promotional messages and their impact.

- Identify and understand barriers impacting on the use of female condom by young women.
- Inform policy makers to make informed decisions.

Upon completion of this study a copy of the report will be made available to areas where the study will be conducted, Ministry of Health as well as the authorities in the township.

Find attached a copy of the research proposal.

Thank you in advance for your consideration.

Yours faithfully

Moitlamo Mokgetse

ANNEXURE B: PERMISSION TO CONDUCT STUDY

TELEPHONE: 363 2766
FAX: 391 0647
TELEGRAMS: RABONGAKA
TELEX: 2818 CARE BD



Republic of Botswana

MINISTRY OF HEALTH
PRIVATE BAG 0038
GABORONE

REFERENCE NO: PPME 13/18/1 IX (467)

07 August 2015

Health Research and Development Division

Notification of IRB Review: New application

Moitlamo Mokgetse
P/Bag 023
Jwananeng

Protocol Title: **FEMALE CONDOM ACCEPTABILITY
AMONG YOUNG WOMEN IN BOTSWANA**

HRU Effective Date: 07 August 2015
HRU Expiration Date: 07 August 2016
HRU Review Type: HRU reviewed
HRU Review Determination: Approved
Risk Determination: Minimal risk

Dear Ms Mokgetse

Thank you for submitting new application for the above referenced protocol. The permission is granted to conduct the study.

This permit does not however give you authority to collect data from the selected site without prior approval from the management. Consent from the identified individuals should be obtained at all times.

The research should be conducted as outlined in the approved proposal. Any changes to the approved proposal must be submitted to the Health Research and Development Division in the Ministry of Health for consideration and approval.

Furthermore, you are requested to submit at least one hardcopy and an electronic copy of the report to the Health Research, Ministry of Health within 3 months of completion of the study. Approval is for academic fulfillment only. Copies should also be submitted to all other relevant authorities.

ALL CORRESPONDENCE TO BE ADDRESSED
TO: JWANENG DHMT HEAD



DISTRICT HEALTH MANAGEMENT TEAM
PRIVATE BAG 023
JWANENG
TEL: 5880303
FAX: 5881395/5882609/5882800

REPUBLIC OF BOTSWANA

REF: JDHMT PF 4/2/39/854025508

31st August 2015

Moitlamo Mokgetse
Jwaneng DHMT
Private Bag 023
Jwaneng


Dear Madam

RE: PERMISSION TO CONDUCT RESEARCH IN HEALTH FACILITIES

Your request to conduct research on **female condom acceptability among young women aged 15 years and 34 years** in Jwaneng Township in the three health facilities for partial fulfillment of your graduation has been granted.

Thank you.

Yours faithfully


M Ranko
DHMT Head



ANNEXURE C: CONSENT FORM

Dear Participant

RE: Consent to participate in research study

Study Title: The acceptability of the female condom among young women aged 15-34 years of age in Botswana

I, Moitlamo Mokgetse, am conducting a research on: Female condom acceptability among young women in Botswana. The study is done as a fulfilment of the requirement of Masters in Nursing Sciences (MA NSC) with the University of South Africa (UNISA). The study is supervised by Dr Margaret M. Ramukumba, a senior lecturer in the Department of Health Studies, University of South Africa. You can **contact** her at Theo van Wijk Building 7–173. Tel: +27 12 4296719. Muckleneuk Campus, South Africa or **email her at:** RAMUKMM@unisa.ac.za, should a need arise.

I hereby invite you to participate in this research study. Participants in this study are young women aged 15 to 34 years old residing in Jwaneng Township and accessing services in the three clinics in Jwaneng at the time of the study. You have been selected for the research study because you are generally suitable to provide the necessary information for the success of the study. You will be expected to complete a questionnaire which will take approximately 30 minutes.

Participation in this research study is voluntary and you have the right not to participate or you may withdraw your consent at any time without any penalty. There is no monetary compensation to participate. If you agree to participate in the study you will be given a copy of this document (consent form) and a questionnaire to complete of which you will not be expected to identify yourself for the sake of anonymity. The results of the study will be seen by the supervisor, the authorities where the research study will be conducted as well as the research unit of the Ministry of Health.

The summary of the study findings will be made available in the facilities where the study will be conducted if you are interested in the content and results. If you agree to participate in the research study, please sign the consent form below.

I..... (Full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participate in the study. I understand that I am at liberty to withdraw from the study at any time should I so desire without any penalty.

If you need any information, you encounter some problems or you have questions or concerns, please contact:

Moitlamo Mokgetse

EU 7 clinic

Private Bag 023

Jwaneng

Tel: 00267 5880270

Cell number: 00267 71636528 or 00267 73428595

Email: mmokgetse@gmail.com or 44479387@mylife.unisa.ac.za

Signature of participant

Date

Thank you for your participation in this study.

ANNEXURE D: ASSENT

Dear Parent/Guardian

RE: Consent for the child to participate in the research study

Study Title: The acceptability of the female condom among young women aged 15-34 years of age in Botswana

I, Moitlamo Mokgetse am conducting a research on: the acceptability of the female condom among young women aged 15-34 years of age in Botswana. The study is done as a fulfilment of the requirement of Masters in Nursing Sciences (MA NSC) with the University of South Africa (UNISA). The study is supervised by Dr Margaret M. Ramukumba, a senior lecturer in the Department of Health Studies, University of South Africa. You can contact her at Theo van Wyk Building 7–173. Call her at +27 12 4296719, Muckleneuk Campus, South Africa or email her at: RAMUKMM@unisa.ac.za, should a need arise.

Your child is invited to participate in this study. Participation is voluntary and your child has the right not to participate or she may withdraw her consent at any time without any penalty. There will be no incentives for the participants. If she agrees to participate in the study she will be given a copy of this document (consent form) and a questionnaire to complete of which she will not be expected to identify herself for the sake of anonymity. The results of the study will be seen by the supervisor, the authorities where the research study will be conducted as well as the research unit of the Ministry of Health.

The summary of the study findings will be made available in the facilities where the study will be conducted if you and the child are interested in the content and results. If you give permission for your child to participate in the research study, please sign the consent form below.

I..... **(Full names of parent/guardian)**
hereby confirm that I understand the contents of this document and the nature of the research project, and I give permission for my child to participate in this study. I understand that my child is at liberty to withdraw from the study at any time should she

so desire without any penalty. If she participates in the research study, I also have to agree. But if I do not want her to participate I do not have to consent, even if she agreed to participate.

Signature of the parent/guardian

Date

I have discussed the research study with your parent/guardian and s/he is aware that I am asking for your consent to participate in this study. If you are going to participate in the research study, your parent/guardian also has to agree. But if you do not want to participate you do not have to, even if your parent/guardian agreed. Participants in this study are young women aged 15 to 34 years old residing in Jwaneng township and accessing services in the three clinics in Jwaneng at the time of the study. You have been selected for the research study because you are generally suitable to provide the necessary information for the success of the research study. You will be expected to complete a questionnaire which will take approximately 30 minutes.

If the child consents:

Name of the child_____

Signature of the child_____

Date_____

If you need any information, or you have questions or concerns about the study or consent form, please contact:

Moitlamo Mokgetse

Tel: 00267 5880270

Cell number: 00267 71636528 or 00267 73428595

Email: mmokgetse@gmail.com or 44479387@mylife.unisa.ac.za

I confirm that the child was given an opportunity to ask questions about the study, and all the questions asked were answered correctly and to the best of my ability. The child was not coerced to give consent but instead has been given freely and voluntarily. A copy of this consent has been given to the participant.

Name of researcher _____

Signature of the researcher _____

Date _____

Thank you for your participation in this research study.

ANNEXURE E: QUESTIONNAIRE



COLLEGE OF HUMAN SCIENCES
SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF HEALTH STUDIES

Dear Participant

This structured questionnaire was designed as an instrument to elicit information regarding the acceptability of the female condom among young women in the age group 15-34 years in Botswana. Considerable value is highly given to the fact that your input will contribute towards evaluating the magnitude to which condoms are regarded as an important tool for prevention of unplanned pregnancies, sexually transmitted infections (STI) and transmission of HIV.

Kindly note that your participation is entirely voluntary, your identity remains anonymous, no personal information about participants will be disclosed to anyone and all information you provide will remain confidential. Your integrity will in no way be compromised and you are also at liberty to withdraw from this study at any point, should you feel so.

If you do not wish to take part in the study, neither complete nor return the questionnaire. If you decide to participate, the questionnaire should take you about twenty minutes to complete. Please answer the questions in the space provided. Try to honestly complete the questions at the time you are most unlikely to be disturbed, and avoid spending too long on one question. There are no costs associated with completing the questionnaire other than your time.

If you have any queries or would like further information about this research project, please contact me during office hours on +267 71636528 / +267 73428595 or email me on 44479387@mylife.unisa.ac.za. Should you have any questions regarding ethical aspects of the study, you can contact the supervisor of the study at UNISA, Dr Margaret Ramukumba, during office hours at telephone number 012 4296719 or e-mail: ramukmm@unisa.ac.za.

The researcher appreciates the time taken by the respondents in completing this questionnaire as well as their contribution to the successful completion of the study. A copy of my completed research report can be made available to you upon request.

M. Moitlamo Mokgetse
Researcher

Dr Margaret Ramukumba
Supervisor

Guide to Answering the Questions

Read the statement or question carefully to ensure understanding.

Put an X in front of your answer for each question in the column labelled “Response”

#	Question	Response	Code
Section 1: Demographic information			
101	Which health facility are you closest to?	Ditsweletse Clinic	1
		Tshimologo Clinic	2
		EU 7 Clinic	3
102	What is your gender?	Female	1
		Male	2
103	In which age category do you fall?	15 – 19 years	1
		20 – 24 years	2
		24 – 29 years	3
		30 – 34 years	4
104	How many children do you have?	No child (none)	1
		1 child	2
		2 children	3
		3 children	4
		4 children	5
		5 children	6
		>= 6 children	7
105	What is your marital status?	Single	1
		Married	2
		Divorced	3
		Widowed	4
		Separated	5
		Cohabiting	6

		Not employed	1
		Self-employed	2
106	What is your employment status?	Temporarily	3
		Permanently	4
		Never studied	1
		Non-formal	2
107	What is your highest level of education/training?	Primary	3
		Secondary	4
		Tertiary	5
		Christianity	1
		Muslim	2
108	What is your religion?	Hindu	3
		Other	4
		None	1
		One	2
109	How many sexual partners have you had in the past six (6) months?	Two	3
		Three	4
		Four	5
		Five and above	6
#	Question	Response	Code

Section 2: Knowledge and use of the female condom

Questions in this section intend to measure your knowledge of the female condom.

201	Have you ever heard of the female condom before?	No	1
		Yes	2
		Television	1
		Radio	2
		Friends	3
		Family member	4
201a	If you answered “Yes” to question 201 above, what was your main source of information about the female condom? (Can tick more than one item)	Health facility	5
		Pamphlet/Banner	6
		Facebook/Twitter	7
		Hotel/Lodge	8
		Conference/Workshop	9

202	Have you ever seen a female condom before?	No	1
		Yes	2
	If you answered “ Yes ” to question 202 above,	Negative	1
202a	what was your first general reaction to condom features such as <i>material used, size and shape</i> ?	Neutral	2
		Positive	3
		Oral contraceptives	1
		Injectable	2
		Norplant	3
		Female condom	4
203	What method of contraception are you currently on?	Male condom	5
		Natural methods (abstinence/calendar method or rhythm)	6
<hr/>			
203a	If you answered “ Female condom ” to question 203 above, answer → 203a1, 203a2 and 203b.		
<hr/>			
		Less than 1 year	1
		1 – < 3 years	2
203a1	How long have you been using it?	3 – < 5 years	3
		5 – < 7 years	4
		7 years and above	5
		No	1
203a2	Would you want to continue using it?	Yes	2
		No	1
203b	Before you used the female condom, was there a demonstration on how the condom is used?	Yes	2
		Health worker	1
203b1	If you answered “ Yes ” to question 203b, who did the demonstration?	Peer educator	2
		Friend	3
		Relative	4
		No	1
203b2	Was your partner present at the time of the demonstration?	Yes	2
		Yourself	1
203b3	If you answered “ No ” to question 203b2, who did the introduction and demonstration to him?	Health worker	2
		Peer Educator	3
		Counsellor	4

#	Question	Response	Code
Section 2: Knowledge and use of the female condom.....(Continued)			
<i>Questions in this section intend to measure your knowledge of the female condom.</i>			
203b4	What was your partner's reaction or comment after using the female condom?	He will use again	1
		Never use it again	2
		It was difficult to use	3
		It was easy to use	4
204	What did you like most about the female condom?	Material used	1
		Size	2
		Shape	3
		Privacy	4
		Insertion	5
		Independence	6
205	What did you least like about the female condom?	Material used	1
		Size	2
		Shape	3
		Insertion	4

Section 3: General views about the female condom

Statements in this section intend to determine your views about the female condom.

Indicate your opinion based on the 5-point Likert scale for each question provided below:

Example:

Female condoms provide pleasure during sexual intercourse?
 (If you consider "Disagree" as your answer, then place an X in the box labelled **2**:

Strongly disagree	1	2	3	4	5	Strongly agree
-------------------	---	---	---	---	---	----------------

#	Statement	Response/Code				
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
301	The material of female condom makes it difficult to use	1	2	3	4	5
302	A female condom is for promiscuous women	1	2	3	4	5
303	Use of a female condom needs the cooperation of both the male and the female	1	2	3	4	5
304	A female condom empowers women	1	2	3	4	5
305	A female condom is effective for STI/HIV prevention	1	2	3	4	5
306	Information on using female condoms should be availed to all to improve its use	1	2	3	4	5
307	Female condoms should always be easily accessible	1	2	3	4	5
#	Question	Response				Code

Section 4: Choice, promotion and possible recommendations

Questions in this section intend to determine your choice, promotion and possible recommendations you could give about the use of a female condom.

401	Given a choice between using a male condom and female condom, which one would you prefer?	None of them	1
		Male condom	2
		Female condom	3
		Both of them	4
402	Do you think the female condom is promoted enough?	No	1
		Not sure	2
		Yes	3
403	Would you recommend a female condom to other women?	No	1
		Not sure	2
		Yes	3

(Adapted from Chirwa 2011)

Open question:

What are the barriers to female condom use?

Thank you for your time and participation

ANNEXURE F: ETHICAL CLEARANCE CERTIFICATE



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

REC-012714-039

HS HDC/355/2014

Date: 26 November 2014 Student No: 4447-938-7
Project Title: Female condom acceptability among young women in Botswana.
Researcher: Moitlamo Mokgetse
Degree: MA in Nursing Code: MPCHS94
Supervisor: Dr MM Ramukumba
Qualification: PhD
Joint Supervisor: -

DECISION OF COMMITTEE

Approved

Conditionally Approved

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

L. L. Roets (Prof)

MM Moleki
Prof MM Moleki

ACADEMIC CHAIRPERSON: DEPARTMENT OF HEALTH STUDIES

PLEASE QUOTE THE PROJECT NUMBER IN ALL ENQUIRES