

**UTILISATION OF NATURAL FAMILY PLANNING
AMONG CATHOLIC COUPLES IN LUSAKA**

**BY
KALOBWE SECUNDA MWAPE
RN/RM/BSc. NURSING**

**A dissertation submitted in partial fulfillment of the requirements
for the degree of Master of Science in Public Health Nursing**

The University of Zambia

August, 2020

NOTICE OF COPYRIGHT

©2020 by Kalobwe Secunda Mwape. All rights reserved.

DECLARATION

I, **Kalobwe Secunda Mwape**, hereby certify this dissertation as the product of my own work submitting it for the Degree of Master of Science in Community Health Nursing. I further attest that it has not been submitted to University of Zambia or another University in part or full for the award of any degree.

Candidate's Name: Kalobwe Secunda Mwape

Candidate's Signature..... **Date**.....

Supervisor's Name: Dr. Catherine M Ngoma

Supervisor's Signature..... **Date**.....

CERTIFICATE OF COMPLETION OF DISSERTATION

I, **Doctor Catherine M Ngoma** having supervised and read this dissertation is satisfied that this is the original work of the author under whose name it is being presented. I confirm that the work has been completed satisfactorily and approve it for final submission.

Signature..... **Date**.....

Dean

Signature..... **Date**.....

School of Nursing Sciences, University of Zambia

CERTIFICATE OF APPROVAL

This dissertation titled UTILISATION OF NATURAL FAMILY PLANNING AMONG CATHOLIC COUPLES IN LUSAKA by KALOBWE SECUNDA MWAPE has been approved in partial fulfilment of the requirements for the award of the Degree of Master of Science in Public Health Nursing by the University of Zambia.

Examiner I

Signature.....Date.....

Examiner II

Signature.....Date.....

Examiner III

Signature.....Date.....

ABSTRACT

Background: The national strategy for family planning in Zambia is to increase the availability and access of contraceptive services and to intensify information education and communication. Meanwhile, the Roman Catholic Church advocates natural family planning methods as the only genuine, legitimate and recommendable method of birth control. Ironically, utilisation of natural family planning continues to be lower than other contraceptive methods.

Objective: The main objective of this study was to assess utilisation of natural family planning among Catholic Couples in Lusaka. The study sought to determine the level of knowledge, service related factors and the association between utilisation and the determinants to utilisation of natural family planning among Catholic couples.

Methods: A descriptive cross-sectional study design was used. The study was conducted in Lusaka and part of Central provinces based on the Lusaka Archdiocese boundaries. The calculated sample size was 384 and cluster technique was used to select the respondents. Out of the calculated sample size of 384, only 231 participated in the study, giving a response rate of 60%. A semi-structured questionnaire was used to collect data. Data was processed and analysed using the Statistical Package for Social Science (SPSS) version 22 Computer software for Windows. Confidence interval was set at 95%. A 5% level of significance was set, only p -values of 0.05 or less were considered statistically significant. The Chi-Square test, Bivariate and multiple logistic regressions were used to test for associations between the dependent and independent variables.

Findings: The findings of the study were that, only 39% of the Catholic couples utilised the natural family planning methods. Salient findings were that service providers were not available in the Parishes and most couples did not have adequate information to enable them practice the method. On the other hand, the study found that factors such as duration of marriage, number of children and the type of marriage were not significant. There is need therefore for the Roman Catholic Church to fully participate in the provision of natural family planning services if the Catholic couples are to conform to the teaching of the Church.

Key words: *Natural Family Planning, Utilisation, Roman Catholic couples*

DEDICATION

It is with utmost pleasure and sincere gratitude that I dedicate this study to my lovely and dear husband *Mr Regis Chikuni Miyanda* for his unconditional love, encouragement, patience, perseverance and support that made this work possible.

My late parents Mr Dominic Mwewa Kalobwe and Mrs Agatha Mukobe Sondashi Kalobwe who educated and taught me to give my best in all that I do in life and believed in me.

My children; Chikuni, Mwansa, Mukobe and Chilao for their sacrifice and moral support.

My entire family for your care and support.

Above all I thank my Almighty Heavenly God for his grace and mercies upon my life.

ACKNOWLEDGEMENT

This project would not have been possible without the support of many people. First of all I would like to thank the Almighty God for providing me with strength, hope and wisdom when I felt weak during my study.

I would like also to thank the following individuals who supported me in many different ways throughout this project:

- My supervisors Dr Catherine M Ngoma and the co-supervisor Ms Ruth Wahila for their unwavering supervision, patience and support.
- The entire faculty in the School of Nursing Sciences for the support during this course.
- The participants who made this study a success by providing me with all the necessary information I needed.
- Command of Defence School of Health Sciences for the support.

Last but not the least, I would like to thank my friends and colleagues among them; Louisa Lukupa Mung'andu, Charity Shilengwe Hamweete, Idah Namusokwe Kasimbo, and Bridget Sikapande for the words of encouragement and psychological support offered to me throughout the project.

TABLE OF CONTENTS

Table of contents	Page
Title Page -----	i
Declaration -----	ii
Certificate of approval -----	iii
Abstract -----	i v
Dedication -----	v
Acknowledgement -----	vi
Table of Contents -----	vii
List of Figures -----	xi
List of Tables -----	xii
List of abbreviations -----	xiii

CHAPTER ONE

1.0: Introduction	1
1.1: Background Information	3
1.2: Statement of the Problem	6
1.3: Justification	7
1.4: Theoretical framework	8
1.4.1: Application of HBM to the current study	10
1.5: Research Questions	13
1.6: Research Objectives	13
1.7: Definition of terms	14

1.7.1: Conceptual Definitions	14
1.7.2: Operational Definitions	14
1.8: Study Variables	16
1.8.1: Dependent variable	16
1.8.2: Independent variable	16
1.9: Variables, indicators and cut off points	17

CHAPTER TWO

Literature Review	18
2.0: Introduction	18
2.1: Awareness of natural family planning among Catholic couples	18
2.2: Benefits of utilisation of natural family planning among catholic couples	23
2.3: Association between utilisation and determinants to utilisation of natural family planning among catholic couples	26
2.4: Summary	28

CHAPTER THREE

Research Methodology	30
3.0: Introduction	30
3.1: Study Design	30
3.2: Study Setting and Population	30
3.2.1: Target Population	31

3.2.2: Accessible Population	31
3.3: Selection of participants, sampling methods and sample size	31
3.4: Eligibility criteria	33
3.5: Data Collection Tool	33
3.6: Data Management and Storage	35
3.7: Ethical and Cultural Consideration	36

CHAPTER FOUR

4.0: Data Analysis and Presentation of Findings	36
4.1: Introduction	36
4.2: Data Analysis	36
4.3: Presentation of Findings	37
4.4: Section A: Socio Demographic Characteristics of Respondents	38
4.5: Section B: Responses on Level of Awareness about Natural Family Planning	39
4.6: Section C: Responses on Utilisation of Natural Family Planning	42
4.7: Section D: Responses on Service Related Factors	44
4.8: Section E: Responses on Relationship between Dependent and Independent Variables	49

CHAPTER FIVE

5.0: Discussion of Findings	51
5.1: Introduction	51
5.2: Socio-Demographic Variables	51
5.3: Awareness Level on Natural Family Planning	51
5.4: Utilisation level of Natural family planning among Catholic couples	55
5.5: Service related factors influencing utilisation of natural family planning among Catholic couples	57
5.6: Association between utilisation of natural family planning and the determinants to utilisation of natural family planning among	59
5.7: Application of the Health Belief Model to the study results	61
5.8: Implications of the Study Findings to Nursing	62
5.8.1: Nursing education	62
5.8.2: Nursing administration	63
5.8.3: Nursing research.....	63
5.8.4: Nursing practice	63
5.9: Conclusion and Recommendation	64
5.9.1: Conclusion	64
5.9.2: Recommendations	64
5.9.3: Future Research	65
5.10: Strengths and Limitations of the Study	65
5.11: Dissemination and utilisation of findings	66
References	67

Appendices	72
Appendix I: Participant Information Sheet	72
Appendix II: Participant Consent Form	74
Appendix III: Structured interview schedule	75
Appendix IV: Translated Participant Information Sheet	80
Appendix V: Translated Participant Consent Form	82
Appendix VI: Translated Structured interview schedule	83
Appendix VII: Gantt Chart	89
Appendix VIII: Study budget	90
Appendix IX: Ethical Clearance- UNZABREC	92
Appendix X: Ethical Clearance –NHRA	93

LIST OF FIGURES

Figure 1: Diagrammatic illustration of the Health Belief Model	12
Figure 2: Awareness of natural family planning	39
Figure 3: Sources of information about natural family planning	40
Figure 4: Knowledge of natural family planning methods	41
Figure 5: Patterns of use of modern contraceptive methods	44
Figure 6: Availability of service providers in Parishes	45
Figure 7: Accessibility of natural family planning providers	45
Figure 8: Adequacy of information during lessons	47
Figure 9: Adequacy of information by the church	42

LIST OF TABLES

Table 1: Percentage of family planning use among married	6
Table 2: Variables Cut Off Points and Indicators	17
Table 3: Social demographic characteristic	38
Table 4: Definition of natural family planning method	41
Table 5: Artificial contraceptive methods and the Catholic Church	42
Table 6: Utilisation of natural family planning method	42
Table 7 Ability to use natural family planning method	43
Table 8: Effectiveness of natural family planning method	46
Table 9: Lessons on Natural Family Planning method	46
Table 10: Chi-square test	49
Table 11: Univariate Binary Logistic Regression	50
Table 12: Multi-Variate Binary Logistic Regression	51

LIST OF ABBREVIATIONS

ADL	Archdiocese of Lusaka
CDC	Center for Disease Control and Prevention
FABM	Fertility Awareness Based Methods
FHI	Family Health International
FLA	Fraternal Life Association
FDG	Focused Group Discussions
GRZ	Government Republic of Zambia
HBM	Health Belief Model
HUMC	Health Unit Management Committee
HIV	Human Immunodeficiency Virus
IUD	Intra Uterine Device
LAM	Lactation Amenorrhea
MoH	Ministry of Health
NGO	Non-Governmental Organisation
NSFG	National Survey of Family Growth
NWFS	North Family Services
NCHS	National Center for Health Statistics
RCC	Roman Catholic Church
STDs	Sexually Transmitted Diseases
SPSS	Statistical Package for Social Sciences
USA	United States of America
UNZA	University of Zambia
UNZABREC	University of Zambia Biomedical Research Ethics Committee

UNFPA	United Nations Family Planning Agency
USCCB	United States of America Conference of Catholic Bishops
WHO	World Health Organisation
ZDHS	Zambia Demographic Health Survey

CHAPTER ONE

1.0 INTRODUCTION

This study describes utilisation of natural family planning among Catholic couples in Lusaka. The Roman Catholic Church (RCC) is one of the major Zambian Government partners who are involved in the delivery of health care services to the Zambian population. In Lusaka, the RCC operates nine (9) health institutions which offer both general and specialised health care. Some of these facilities include; Cardinal Adams Memorial Hospital, St. Joseph Mission Hospital, Katondwe Mission Hospital and St. Luke's Mission Hospital. Globally, regionally and locally, Family Planning is promoted to enable individuals and couples to space and limit childbirth. United Nations Family Planning Agency (UNFPA, 2017) defines family Planning as the voluntary planning and action taken by individuals and couples to anticipate and attain their desired number of children in addition to the spacing and timing of their births.

Likewise, the RCC, in its quest to promote a healthy nation, also encourages individuals to regulate the number of children through the use of natural family planning only. Natural family planning or fertility awareness as it is similarly referred to, is also called the safe period method. World Health Organisation (WHO) defines natural family planning as a method of periodic abstinence from, and varieties of, sexual contact between the male and female in a couple who desire to plan the timing of the arrival of their children (WHO, 2017). It is based on a scientific knowledge of the female and male reproductive systems and on an understanding of the signs and symptoms that occur naturally in the woman's menstrual cycle to indicate when she is fertile and when she is infertile (Fehring, 2011). This implies that the woman is able to define the days of the cycle when she is potentially fertile and that the couple agree to adjust their sexual behaviour according to their family planning intention.

WHO (2018) classifies natural family planning methods into five categories.

The first method is the Calendar rhythm method. In this method, women monitor their pattern of menstrual cycle over 6 months, subtract 18 from shortest cycle length (estimated first fertile day) and subtract 11 from longest cycle length (estimated last fertile day). The couple prevents pregnancy by abstaining from sexual intercourse during the first and last estimated fertile days.

The second method is the Standard Days Method (SDM). In this method, women track their fertile periods usually days 8 to 19 of each 26 to 32 day cycle using cycle beads or other aids. The couple prevents pregnancy by abstaining from sexual intercourse during the most fertile days.

The third category of natural family planning is the Basal body temperature. This type of natural family planning is based on the pattern of the body's temperature at rest. The woman using this method takes her temperature every day before she gets up in the morning and records it on a chart. Monitoring the rise in temperature makes it possible to determine when the woman has ovulated and the fertility days are calculated from the start of menstruation until three days after recording, observing for an increase of 0.2 to 0.5 degrees Celsius; when the temperature stays higher for three days, ovulation has occurred and the fertile period has passed. Couple can resume sexual intercourse on the 4th day until the next menstrual period.

The fourth natural family planning category is the cervical mucus method (Billings or ovulation method). The cervical mucus method is based on detecting the changes in cervical mucus secretions and in the sensations in the vagina. Before ovulation, the cervical mucus becomes slippery in the vagina. The mucus changes are greatest around the time of ovulation. After ovulation, the cervical mucus becomes thick or may disappear completely. A couple using this method to avoid pregnancy will abstain from intercourse when the wet stretchy cervical mucus is present.

The fifth natural family planning category is the Sympto-thermal method. The symptom-thermal method combines recording the basal body temperature and observing the cervical mucus. Couples using this method avoid pregnancy by abstaining from intercourse when they observe cervical mucus which is of clear texture, slight increase in body temperature and softening of the cervix as these are the indications of the fertile period.

1.1 BACK GROUND INFORMATION

Family planning can be categorised into two, namely; natural family planning and artificial family planning. Artificial family planning is the use of mechanical, chemical or medical procedures to prevent conception from taking place and it includes contraceptive methods such as pills, injectables, barriers (e.g. male and female condoms, spermicides), intra uterine devices (IUDs) and permanent sterilisation (WHO, 2017). The RCC acknowledged the genuine need for birth control and child spacing in 1968 at the second Vatican Council (Vatican II) which was held in Rome (Doeflinger, 2012). The church admitted the presence of pregnancy related risks to the mothers and children's health.

Furthermore, the RCC acknowledged the economic difficulties associated with large unplanned families, and the limited resources, especially in developing countries, hence the need for couples to take responsibility to plan and space their children.

The RCC approves the limitation of the number of children based on the mother's health, hereditary defects, low income, continued danger of unemployment, and lack of housing. In fact, the RCC does not glorify uncontrolled procreation, nor praise any procreation of children without educating them. Rather, the church encourages Christian spouses to have harmonised matrimonial love, be open to procreation, properly care for their children and if necessary control their family size (Aran, 2016).

However, the RCC differs from other advocates of family planning over the means by which to achieve the goals of birth control. One fundamental point of disagreement between the RCC and other proponents of birth control is the point at which life begins.

The RCC is of the view that since life begins at the time of fertilisation and that human life must be respected and protected from the moment of conception. On or after conception, the life of every human being is to be respected in an absolute way, because man is the only creature on earth that God has wished for himself and the spiritual soul of each man is immediately created by God, his whole being bears the image of the Creator.

Schu (2010) agrees with the doctrine of the RCC in relation to the existence of human life following fertilisation as he reaffirms that, from the first moment of his existence, a human being must be recognised as having the right of a person among which is the inviolable right to life.

Therefore, the RCC officially recognises natural family planning as the only genuine, legitimate and recommendable method of birth control because it does not interfere with the openness of the marriage act to transmission of life and does not interrupt primordial and defenceless life (Fehring, 2015). This implies that if the couple wishes to postpone pregnancy they abstain from sexual intercourse during the fertile period and in case there is unintended pregnancy, it should be preserved as a marriage gift. According to the RCC, all other methods of family planning frustrate the natural processes through interruption by mechanical devices, or chemical interventions (LaMorte, 2016).

Hormonal methods such as the pill work in several ways; they can suppress ovulation or alter cervical mucus consistency to prevent fertilisation, and thus act contractively. At times, hormonal methods may produce additional effects such as affecting changes to the lining of the uterus. If the contraceptive action fails and fertilisation takes place, these hormonal methods may make it impossible for a newly conceived life to implant and survive. In essence, this is believed to be an early abortion according to the belief of the RCC. There is also a great concern about the risk of causing an early abortion in cases where contraceptive pills such as progestin only (ulipristal acetate or levonorgestrel) are taken after sexual intercourse to prevent pregnancy (“emergency contraception” or “morning-after pills”). In some cases, these emergency contraception pills are taken when a sperm and an egg have already joined to create a new life, in which case the drug could not have any effect except to cause an early abortion (Doeflinger, 2012). Since these hormonal methods work in different ways, the RCC thus, discourages the members not to use these methods on moral grounds, and to respect God’s creation as well dignify human life from conception.

The RCC furthermore, promotes natural family planning because it is the only method that respects the link between the love-giving and the life-giving purposes that God has placed in sexual intercourse. Sexual intercourse is intended by God to be the most intimate sign of the complete gift of self that a man and a woman make to one another in marriage. This act that expresses their mutual gift of self, at the same time makes them capable of the greatest possible gift cooperating with God in giving life to a new human person. This means that each sexual act in a marriage needs to be open to the possibility of conceiving a child.

Additionally, natural family planning provides a healthy, highly effective method of contraception at a very low cost and with no harmful side effects. It can be used successfully at all stages in a woman's life, including during breastfeeding and perimenopausal. Couples who practice natural family planning often develop a deeper respect for one another's bodies, for the gift of their joint fertility and for the privilege of parenthood. Many couples also find that the mutual respect, regular communication, shared responsibility and self-restraint required by the practice of the method enrich their relationship and strengthen their marriage (Aran, 2016). The church acknowledges natural family planning as the only scientific method which is very free of side effects and complications, which can arise from artificial family planning methods.

International studies confirm that, when used to avoid pregnancy, natural family planning has an effectiveness rate of 98-99% for a couple who has been properly instructed and who follows the method carefully (Wayne, 2013). The church reaffirms the effectiveness of natural family planning method that when used correctly, its effectiveness is very high just like the artificial family planning methods. According to central statistics office (CSO) the results on knowledge of the fertile period among Zambian women show that 14% did not know about the fertile period; a state that calls for continuous education. Additionally, the Contraceptive Prevalence Rate (CPR) is at 41% (CSO et al., 2014).

Can this be attributed to the assumption that, the RCC members who are adhering to the teaching of the church of not using artificial family planning but due to inadequate knowledge and other factors are unable to use natural family planning, hence, high rates of family planning unmet needs, as well as high fertility rate of 6.2% as a nation? In view of this question, this study was conducted.

1.2 STATEMENT OF THE PROBLEM

Despite that natural family planning methods have been used from time immemorial to plan for pregnancy especially among Catholic couples, and that the methods are the safest among all the other methods, its utilisation is low as compared to artificial methods. Table 1 shows the percentages of current trends of family planning use among married women aged 15-49 years in Zambia.

Table 1: Percentage of family planning use among married women aged 15-49 years.

METHOD	2007 (%)	2013 -2014 (%)
Injectable	8.5	19.3
Pill	11.0	11.8
Implant	0.4	5.5
Male Condom	4.7	4.0
Female Sterilization	1.9	1.9
Intra Uterine Devices (IUD)	0.1	1.2
Lactation Amenorrhea (LAM)	6.2	0.8
Rhythm/Periodic Abstinence	1.2	0.7
Female Condom	0.1	0.1

Source: Zambia Demographic and Health Survey 2013-14

According to Table 1, the Zambia Demographic and Health Survey (which is conducted every after five years) shows a decline in the utilisation of rhythmic/periodic abstinence methods from 1.2 % in 2007 to 0.7% in 2013-2014 while an increase in utilisation of artificial family planning methods has been noted.

There is also a remarkable decline to 0.1% of married women who are not currently using contraception but who indicated future intentions of using natural family planning method, as compared to artificial ones which have recorded an increase such as; injectable 47%, pill 22%, and implants 12% (CSO et al., 2014). Although the RCC constitute one fifth of the total Zambian population in the reproductive age group (CSO et al., 2014), this does not correspond to the percentage of women using natural family planning method. It is therefore, not clear why the use of natural family planning methods seems not to be increasing at the rate that the artificial methods are.

1.3 JUSTIFICATION OF THE STUDY

According to the Ministry of Health (MoH 2012), the Zambian government's national family planning strategy is to increase access to family planning and to intensify information, education, and communication for family planning. This research was designed to investigate the extent to which the Catholic couples utilised natural family planning in Lusaka Province.

The findings can be used to scale up efforts of increasing family planning use from the current 33% to 58% by year 2020 as indicated in the integrated scale up plan 2013-2020 (Ben et al., 2016). The Government Republic of Zambia (GRZ) considers family planning to be a cross cutting issue which requires a multi sector response and encourages coordination of the private sector and cooperating partners in implementation of the programme (GRZ, 2013). Thus, RCC has established a powerful partnership with the MoH in the delivery of health services to the general population as formulated in the ADL Pastoral plan (2012-2016). The approach of the Government Republic of Zambia through the MoH, focuses mainly on the use of artificial methods of family planning. On the contrary, the RCC, one of the major partners of the Zambian government in health care delivery, approves the use of only natural family planning methods by its adherents and in its health units.

With the two bodies recommending divergent approaches, and the government taking aggressive social marketing for artificial family planning only, the extent of use of natural family planning in RCC health facilities or even among Catholic couples is not well known.

The researcher was prompted to conduct this study on the utilisation of natural family planning among Catholics because the studies that have been conducted before have focused on the factors influencing or associated with low utilisation of natural family planning. Tolosi (1993) conducted a study on Factors leading to under- utilisation of natural family planning at Chilenje clinic Lusaka, Lubinda (1996), carried out a study on factors that influence low utilisation of natural family planning methods among child bearing women (aged 15-49 years) in Mongu urban district Zambia and Kabonga (2010), also conducted a study to determine factors influencing utilisation of natural family planning among Child Bearing Women in Chilonga Northern Province Zambia.

However, there are limited or no studies done that have determined the utilisation of natural family planning among the Catholic couples in Zambia who are the main advocators of natural family planning and one of the largest Christian denominations in Lusaka.

1.4 THEORETICAL FRAMEWORK FOR THIS STUDY

This study was guided by the Health Belief Model (HBM). The HBM is a psychological health model developed to explain and predict health-related behaviours, particularly in regard to the uptake of health services. The health belief model was developed by Irwin Rosenstock in 1966 and has been identified as one of the earliest and most influential models in health promotion (Campus, 2005). The HBM is derived from psychological and behavioural theory whose foundation states that, an individual's course of action often depends on the person's perceptions of the benefits and barriers related to health behaviour. It thus suggests that people's beliefs about health problems, perceived benefits of action and barriers to action and self-efficacy explain engagement or lack of engagement in health-promoting behavior. A stimulus, or cue to action, must also be present in order to trigger the health-promoting behavior (LaMorte, 2016).

According to Campus (2005), the HBM is based on the following assumptions:

i. Perceived Susceptibility

Perceived susceptibility refers to subjective assessment of risk of developing a health problem. The model predicts that individuals who perceive that they are susceptible to a particular health problem will engage in behaviours to reduce their risk of developing the health problem. There is wide variation in a person's feelings of severity, and often a person considers the medical consequences such as death, disability and social consequences such as family life, social relationships when evaluating the severity.

ii. Perceived Severity

Perceived severity refers to subjective assessment of the severity of a health problem and its potential consequences. The HBM proposes that individuals who perceive a given health problem as serious are more likely to engage in behaviours to prevent the health problem from occurring or reduce its severity.

iii. Perceived Benefits

Perceived benefits refer to a person's perception of the effectiveness of various actions available to reduce the threat of a health problem. The course of action a person takes in preventing a health problem relies on consideration and evaluation of both perceived susceptibility and perceived benefit, such that the person would accept the recommended health action if it was perceived as beneficial.

iv. Perceived Barriers

This refers to a person's feelings or an individual's assessment of the obstacles to performing a recommended health action or behaviour change. Even if an individual perceives a health condition as threatening and believes that a particular action will effectively reduce the threat, barriers may prevent engagement in the health-promoting behavior. The person weighs the effectiveness of the actions against the

perceptions that it may be expensive, dangerous (for instance side effects), unpleasant (for instance painful), time-consuming, or inconvenient.

v. Modifying Variables

Individual characteristics, including demographic, psychosocial and structural variables, can affect perceptions (perceived seriousness, susceptibility, benefits, and barriers) of health-related behaviors. Demographic variables include age, sex, race, ethnicity, and education, among others. Psychosocial variables include personality, social class, peer and reference group pressure, among others. Structural variables include knowledge about a given disease and prior contact with the disease, among other factors.

vi. Cues to Action (Motivation)

The HBM proposes that a cue, or trigger, is necessary for prompting engagement in health-promoting behaviours. Cues to action can be internal or external. Physiological cues such as pain is an example of internal cue to action. External cues include events or information from close others, the church, or health care providers promoting engagement in health-related behaviours.

vii. Self-Efficacy

This denotes to the level of a person's confidence in his or her ability to successfully perform behaviour. It refers to an individual's perception of his or her competence to successfully perform behaviour.

1.4.1. Application of HBM to the current study

Application of HBM in this study helped to recognise, the main inspiration and barriers for Catholic couples to use natural family planning.

- i. Perceived Susceptibility- when Catholic couples perceive themselves to be vulnerable to getting pregnant by utilising the method then they will take action and not use it. Thus, they will engage in using artificial methods.

- ii. Perceived Severity- when a couple perceive the severity of getting an unplanned pregnancy, they will take action of seeking another family planning service.
- iii. Perceived Benefits-If a couple perceived that the use of natural family planning has great benefits including preserving life, betterment of their marriage life and improving communication between partners; they can then effectively use the method.
- iv. Perceived Barriers- Catholic couples who perceive abstinence from sexual intercourse during fertile period as inconvenience are likely to use other forms of family planning.
- v. Modifying Variables- Individual characteristics, such as education levels, number of children and the age of an individual as well as the duration of marriage can affect the utilisation of natural family planning among Catholic couples.
- vi. Cues to Action - The HBM proposes that a cue, or trigger, is necessary for prompting engagement in health-promoting behaviors. Likewise, involvement of priests, marriage counselors and health workers in the promotion of natural family planning can trigger the utilisation of natural family planning among Catholic couples.
- vii. Self-Efficacy- when a couple has confidence in themselves practicing scientific natural family planning and avoid unplanned pregnancies, they will use the method.

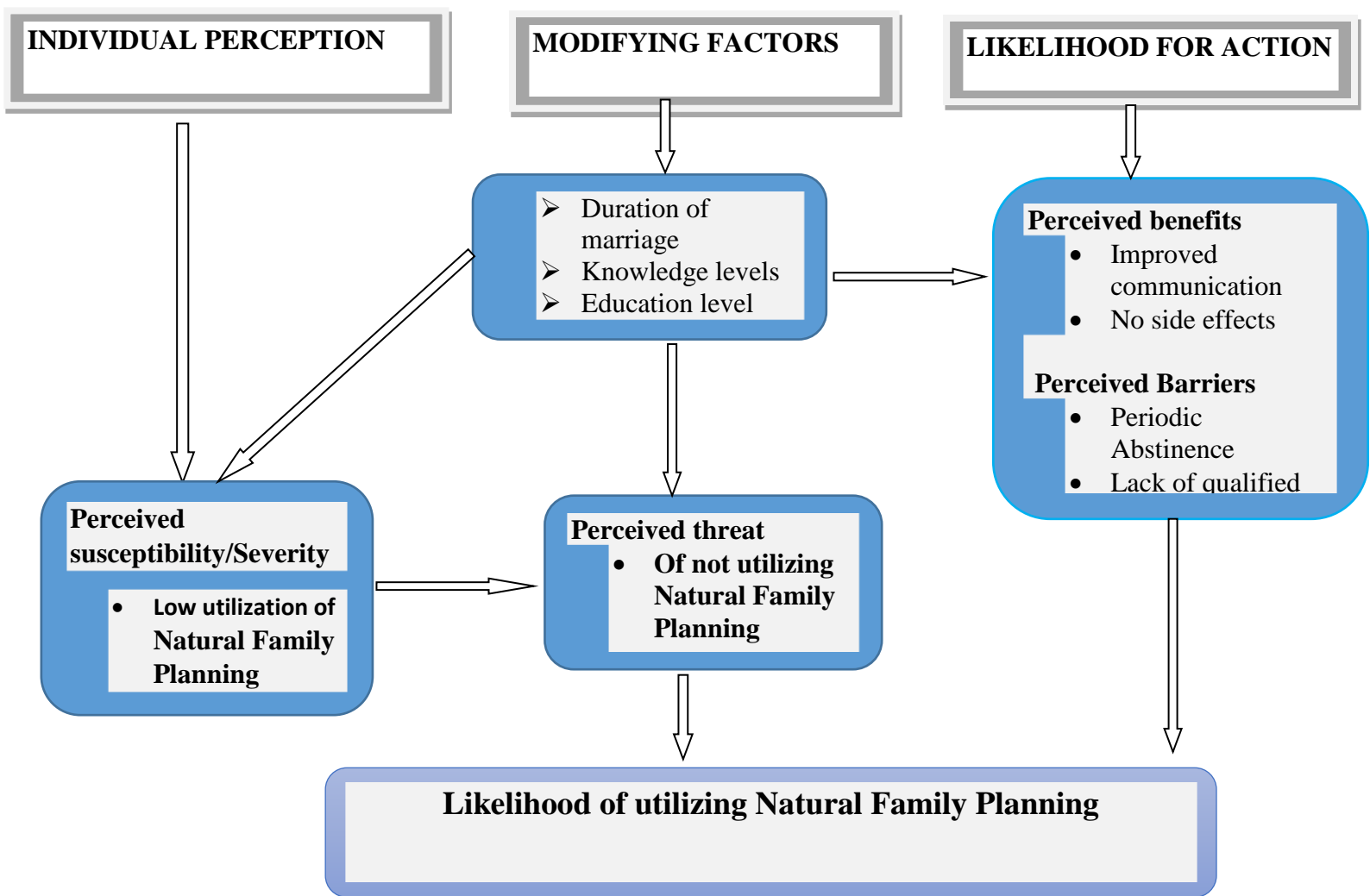


Figure 1: Diagrammatic illustration of the Health Belief Model (Glanz et al., 2002)

1.5 RESEARCH QUESTIONS

To what extent is natural family planning method being utilised by Catholic couples in Lusaka?

1.6 RESEARCH OBJECTIVES

1.6.1 General objective

The general objective of this study is to determine utilisation of natural family planning among Catholic couples in Lusaka.

1.6.2 Specific objectives

The specific objectives of this study are:

1. To assess the awareness level on natural family planning among Catholic couples.
2. To examine the utilisation level of natural family planning among Catholic couples.
3. To evaluate service related factors influencing utilisation of natural family planning among Catholic couples.
4. To identify the association between utilisation of natural family planning and the determinants to utilisation of natural family planning among Catholic couples.

1.7 DEFINITION OF TERMS

1.7.1 CONCEPTUAL DEFINITION OF TERMS

Utilisation: the act of using something in an effective way (Basavanthappa, 2009).

Family planning: actions an individual or a couple take to avoid pregnancy, to space future pregnancies for a specific reason, or to gain control over the number of children conceived (Olds et al., 2015).

Natural family planning: Methods for planning and preventing pregnancies by observation of the naturally occurring signs and symptoms of the fertile and infertile phases of the menstrual cycle (WHO, 2016).

Artificial family planning: An artificial family planning method is any unnatural technique that is used to prevent conception (WHO, 2017).

Roman Catholic church/Catholic church: The branch of Christianity which is governed by a hierarchy with the pope at the top and, at the lower levels, bishops and priests (Fehring, 2010).

Catholic couples: man and woman who have made a partnership covenant between themselves of the whole life and which is ordered by its nature to the good of the spouses and the procreation and education of offspring and which has been raised by the Christ the Lord to the dignity of a sacrament between the baptised (Fitzgibbons, 2017).

Archdiocese of Lusaka: refers to Catholic Churches (Parishes) within Lusaka Province (Wojciech, 2010).

Awareness: perception of a situation or fact (Basavanthappa, 2009).

1.7.2 OPERATIONAL DEFINITION OF TERMS

1.7.2.1 Utilisation – it refers to the effective use of natural family planning. Utilisation was measured by asking the respondents seven (7) item questions. The Catholic couple that indicated having always used natural family planning scored a maximum of three (3) marks.

1.7.2.2 Natural family planning: Ways and means of preventing pregnancies by not using any contraceptive.

1.7.2.3 Duration of marriage: number of years that a couple has been in marriage.

1.7.2.4 Source of knowledge on family planning: where the couple heard the information from about natural family planning.

1.7.2.5 Availability of service providers: how easy it is to find a trained person to offer natural family planning services.

1.7.2.6 Accessibility of service providers: how user friendly and convenient are the natural family planning trained personnel.

1.7.2.7 Adequacy of information- how much information is possessed by Catholic couples on natural family planning.

1.8 STUDY VARIABLES

The variables that are going to be utilised in this study are dependent and independent.

1.8.1 Dependent Variable

In this study the dependent variable is:

- ❖ Utilisation of natural family planning.

1.8.2 Independent Variable

The independent variables in this study are:

- Duration of the marriage
- Number of children
- Source of knowledge on natural family planning.
- Availability of service providers
- Accessibility of service providers
- Adequacy of knowledge

1. 9 VARIABLES, INDICATORS AND CUT OFF POINTS

Table 2: Variables Cut Off Points and Indicators

Variables	Type	Cut - Off Points	Indicators	Question/s
Dependent variable				
➤ Utilisation of natural family planning	Categorical	7-10 4-6 1-3	Very good Good Poor	12-18
Independent variables				
➤ Duration of marriage	Categorical	Less experience Experienced Well experience Experts	1-4years 5-9 years 10-14 years 15 years & above	1
➤ Source of knowledge	Categorical	Trained Untrained	Reliable Unreliable	7
➤ Availability of service providers	Categorical	7-10 4-6 0-3	High Medium Low	19
➤ Accessibility of service providers	Categorical	3 2 1	Always At times Never	20
➤ Adequacy of information	Categorical	1 2 3	Not adequate A bit adequate Very adequate	23

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

The focus of the literature review is on utilisation of the natural family planning among Catholic couples. The purpose of literature review is to serve as a source for research ideas, orientation of the researcher to what is already known, provision of a conceptual context and a perspective on the problem necessary for interpreting the results of the researcher's study (Polit and Hungler, 1995). This literature review focuses on published and unpublished research studies that have been conducted globally, regionally and locally on natural family planning. Sources of literature for this study included computerised database namely; Google scholar and PubMed to access Medline data base and none computerised literature such as books from the University Library, Catholic Church and MoH. This literature review has been organized according to the study objectives.

2.1. Awareness of natural family planning among Catholic couples

For a couple to choose any method of family planning be it artificial family planning or natural family planning, they need adequate information so that an informed decision is made. The best source of information is from a trained family planning counsellor. And the best way to learn natural family planning is from a qualified instructor who is certified from a natural family planning teacher training program. Learning of natural family planning can either be one to one or online. This is supported by a survey that was conducted by Fehring and his colleagues in the United States of America (USA) which provided efficacy data for natural family planning method that is taught online rather than by couples or consultants (Fehring, 2011). This data shows that an online information source can be an effective way to learn natural family planning.

The United States of America Conference of Catholic Bishops (USCCB) maintains a list of additional correspondence courses such as Northwest Family Services (NWFS) which provides client education in the Sympto-Thermal Method on the Internet (Johnson, 2013). In this modern era of technology, natural family planning information and lessons can be accessed online making it more user friendly.

It becomes a challenge to the illiterate and the poor who cannot access this information online especially in a developing country like Zambia. Fehring (2009) states that, Pope Pius XII in 1951 in his address, provided a mandate to the Italian Catholic Union of Obstetrical Nurses to learn about natural methods of birth regulation, and also to know and defend the moral law. Nurses were urged to acquire adequate knowledge on natural family planning and be able to teach the faithful.

John Paul II in 1997 reemphasised in an address to Italian natural family planning providers that there should be natural family planning teachers in all parishes to help couples learn natural family planning methods and to help prepare those seeking marriage. Additionally, health professionals can be active in promoting natural family planning in Catholic parishes, especially in helping with marriage preparation. The Pope who is the head of the Roman Catholic Church expects all Catholic health workers to be experts in teaching natural family planning method and be able to defend their church's teaching on family planning. It is also a mandate of every Parish to have trained natural family planning instructors so the services are accessible to all Catholic couples (Fehring, 2009).

The natural family planning Awareness Week which began in 2002 is, according to the USCCB, a national educational campaign of the USCCB on the Catholic teaching on married love and the gift of human life annual campaign which promotes awareness of natural family planning methods. Additionally, a study was conducted in Germany to determine the amount of natural family planning services that are provided by Catholic health care institutions. It was found that only about 33% of Catholic hospitals offered some type of services in natural family planning and that the services provided were minimal (Fehring, 2010).

It is notable that, Catholic health care institutions have no or limited services in natural family planning. If Catholic health institutions can fully be involved in the services that are related to natural family planning method, its utilisation can greatly improve.

Fehring (2009) reports that, physicians of the Milwaukee Archdiocese in the USA, the guild of the Catholic Medical Association provide a generic natural family planning presentation to all couples doing the marriage preparation lessons. Many parishes, churches, or dioceses have local natural family planning classes, or at least have someone one can contact. The couple to couple league is one of the premier organisations for teaching Catholics natural family planning. They provide a directory of trained natural family planning instructors around the world. They can also provide with a home study course if there are no courses near ones' location (Fehring, 2010).

It is good to note that, in some Catholic dioceses, the training of natural family planning is provided at all Parishes and at all Catholic health facilities and there are also home study services. The RCC in Zambia should also emulate these services as well as consider keeping the directory for natural family planning providers for easy referral. Once the information is adequate among the Catholic members and the services are accessible, there will be high up take of natural family planning method in the RCC as a whole.

A study conducted in the USA by Guzman et al (2013), on the use of fertility awareness methods (FAM) among young adult Latina and black women, found that participants received information on Fertility Awareness Based Methods (FABM) from a variety of sources, including friends, family members, partners, resource counsellors and print media. Researchers suggested that health professionals need to provide information on FABM so that users can use these methods with confidence and accuracy. That many in the medical community lack information and skills to assess or provide women with this information shows a failure of medical education and the bias towards providing methods of family planning. If the information received is not adequate, the effective use of natural family planning will be compromised and the source of information greatly matters in its credibility.

Another survey done in Spain and Germany revealed that physicians both specialists and primary care had the greatest influence in choice of contraceptive method, with the pill and condom the most frequently recommended methods. Besides health care professionals, the internet, family members and friends were the most frequent sources of advice on family planning methods. The authors concluded that health care professionals need to provide more information on benefits and risks of all available contraceptive/family planning methods (Johnson, 2013).

The service providers are also found to be influencing the choice of family planning methods to clients such that some clients are negatively influenced. Service providers are supposed to only give adequate information and let clients make an informed decision.

Most natural family planning teaching is expected to be given by priests during pre-marital counselling. However, Nakiboneka and Maniple (2008), in the study conducted in Uganda on Factors Related to the uptake of natural family planning by clients of Catholic Health Units in Masaka Diocese revealed that, respondents doubted priests as a source of reliable information on natural family planning methods since they are celibate. Many Catholic priests were found to be un-informed about natural family planning or were actually informed by the laity that natural family planning methods do not work. Other priests blamed the doctors for not teaching natural family planning while the doctors wondered why the priests did not take the leading role in teaching of natural family planning. Many respondents had never heard about the official position of the RCC on family planning and several religious leaders and health workers did not feel confident enough to explain the position and natural family planning to the clients.

In a few cases, priests invited health workers to conduct the prenuptial teaching on natural family planning on their behalf, yet only two health workers had been trained to do so in the whole diocese. Most Catholic married couples were not instructed about natural family planning and instead privately consulted their friends who were using natural family planning (Nakiboneka and Maniple, 2008).

The study reveals inadequate service providers and inadequate knowledge among Priests who are supposed to be the promoters of the moral law and the use of natural family planning. If priests do not give the expected teaching to the intending couples, then the utilisation of natural family planning will be very low as priests are the main teachers of the Church and what they say is considered as the teaching of the RCC.

Additionally, Nakiboneka and Maniple (2008), reports that, only married Catholics from three out of ten health units under study reported pre-marriage natural family planning education by lay leaders of married Catholics or by health workers. A Catholic priest, who is also a member of a Health Unit Management Committee (HUMC), admitted that pre-marriage natural family planning education was neglected in current marriage preparations. Respondents who identified themselves as Catholic were asked whether they have ever had any teaching on family planning from any sources. About half of the respondents indicated having heard about the teaching and ever received it, while others had only heard about it but had not received it. Others had never heard about the RCC teaching on family planning at all. In the various FGDs, many participants said that the RCC only discourages use of artificial family planning methods but rarely teaches about natural family planning. On the other hand, the study revealed that, some members of Fraternal Life Association (FLA), a RCC-based organisation, explained that every year some of the Catholic couples attend the “Cana course” to renew their marriage relationship. It is in this forum that they were introduced to natural family planning methods and they continued to meet in their various localities to discuss marriage and natural family planning methods.

For the members of the RCC to effectively use natural family planning, the RCC should include teaching on natural family planning in the syllabus for premarital lessons so that couples are well informed. The church should also provide on-going trainings on the use of natural family planning method. While the RCC strongly stands for natural family planning, literature reveals that, little has been done to teach natural family planning methods to the potential or married couples. Furthermore, the teaching of the method of natural family planning should not be only left to the health workers in health facilities but the RCC should take a leading role in equipping its members with adequate information on its use.

According to the research conducted by Kabonga (2011), on factors affecting utilisation of natural family planning in Chilonga Zambia, the findings revealed that only 41.6% of respondents had knowledge about natural family planning and they could state at least one method while 58.4% had no knowledge of any method of natural family planning. The findings are similar with findings in the study “factors leading to underutilisation of natural family planning at Chilenje clinic by Tolosi (1993), that stated that majority of clients were using other methods of family planning and had no knowledge about natural family planning.

A lot of people may want to use natural family planning but they have inadequate or no knowledge and the services are limited hence the utilisation of natural family planning method continues to be low.

2.2. Benefits of utilisation of natural family planning among catholic couples

Utilisation of natural family planning seems to be influenced by the perceived benefits of practicing this method of family planning. According to Fehring, (2011), the RCC at its Synods of Bishops conference held in 2014-2015, observed that, the use of natural family planning method has the following benefits; shared responsibility by husband and wife, virtually cost-free, no harmful side effects, can be used throughout childbearing years and can be used in special circumstances such as post-partum, breastfeeding and premenopausal. This shows that natural family planning method has a lot of benefits to the couple as well as to the user as an individual and if couples appreciated this fact, its utilisation will be improved.

According to the National Survey of Family Growth (NSFG) conducted by the Scientists at the National Center for Health Statistics (NCHS) and the Center for Disease Control and Prevention (CDC) between 2006-2010, it was discovered that the percentage of Catholic women of reproductive age who indicated ever using natural family planning, their marital status of divorce was almost 50% less compared with Catholic women of reproductive age who never used natural family planning methods (Rodriguez and Fehring 2012).

Couples who practice natural family planning often develop a deeper respect for one another's bodies, for the gift of their joint fertility and for the privilege of parenthood. Many couples also find that the mutual respect, regular communication, shared responsibility and self-restraint required by the practice of natural family planning enrich their relationship and strengthen their marriage (Wayne, 2013). Literature has reviewed that, if a couple uses natural family planning method, their relationship as a couple will be strengthened and this will result in reduced chances of divorce.

The advantages of the calendar rhythm include those of other natural methods. It is low cost. After an initial learning time, a woman can use it without the need to purchase supplies or to return for medical follow up. It has no medical contraindications. It can be taught by para professionals releasing medical personnel for other tasks. Additionally, calendar rhythm may have some unexplored advantages. There is no need to chart temperature or mucus daily. A woman simply keeps track of her cycle on a calendar and uses safe days for intercourse (Fehring, 2011). The use of natural family planning has also been found to be cheap in that, once the woman knows how to use it, there will be no need of going back to the health facility for resupply of the commodity. It is therefore, cost and time effective.

Natural family planning has no side effects and no medical contraindications, so women of any age can safely use these methods, as can women whose health problems preclude use of certain methods, such as oral contraceptives that contain oestrogen. While some religions and cultures do not permit use of hormonal methods, barrier methods or IUDs, no religious prohibitions exist against natural family planning (UNFPA, 2000). The health of an individual is not at any risk of developing side effects when one is using natural family planning method and this makes it the safest family planning method.

The European study group on natural family planning developed and tested the double check method of natural family planning and found the typical use of natural family planning against unintended pregnancy rate among European women to be on par with the use of the hormonal pill. It revealed that, there were only about eight unintended pregnancies per one hundred women over twelve months of natural family planning use (Fehring, 2009).

Natural family planning method when used correctly, it is as effective as artificial family planning methods. The choice of the natural rhythms involves accepting the cycle of the person that is the woman and thereby accepting dialogue, reciprocal respect, shared responsibility and self-control. To accept the cycle and to enter into dialogue means to recognize both spiritual and corporal character of conjugal communion, and to live personal love with its requirement of fidelity (Fehring, 2011). Natural family planning method helps the couple to appreciate the importance of marriage both spiritually and physically.

A number of factors might lead a woman or couple to be interested in using natural family planning, including an aversion to hormones or “chemicals,” a preference for what is perceived as “natural,” a desire to be environmentally responsible, the lack of side effects of the method, its cost-effectiveness, its possible relationship-enhancing effects and its compatibility with religious values. Still, one way to increase awareness and interest in natural family planning is to highlight these positive aspects of natural family planning. No one can dispute natural family planning’s lack of medical side effects compared to, for instance, hormonal methods of contraception. Natural family planning might appeal to women who do not react well to oral contraceptive pills, for instance (Beeman, 2010). Couples need to appreciate the fact that this method is natural, there is no use of hormones or chemicals, and it is not in conflict with any religious teaching.

Despite the above cited benefits, utilisation of natural family planning still remains low. Fehring (2011) indicates that, a study done in Spain on Current use of natural family planning among women of reproductive age revealed that, there was a great increase in the use of artificial family planning from 49.1% to 79.9%, while natural family planning decreased from 0.9% to 0.5%. Another study that was conducted in United States of America discovered that, while Catholics made up 24% of the population in 2002 of reproductive age women using birth control, only 1.5% was using periodic abstinence (Schu, 2010). Additionally, National Survey of Family growth conducted in USA revealed that, only 2% of Catholics used natural family planning (Guttmacher, 2012). The utilisation of natural family planning method that has been revealed in literature does not correspond to the benefits that this method offers.

2.3. Association between utilisation and determinants to utilisation of natural family planning among catholic couples

Studies have shown that there are barriers to the utilisation of natural family planning method. UNFPA (2000) reported that, natural family planning can be difficult to use if a woman has irregular menstrual cycles which can be due to infections or diseases that may alter cervical mucus or menstrual bleeding or if she has recently given birth, is approaching menopause, or is an adolescent whose menstrual cycles have not yet become regular. Other health conditions such as a recent abortion, stroke, liver tumours, or severe cirrhosis can affect ovarian function and the regularity of the menstrual cycle, thus making natural family planning more difficult to use. Other factors can also affect fertility symptoms. For example, lack of sleep, alcohol consumption, and emotional stress can affect body temperature. Some drugs can affect cervical mucus. Additionally, natural family planning offers no protection against sexually transmitted diseases (STDs), so couples are at risk of HIV or other STDs. The risk of contracting HIV or other STIs can hinder some couples from using natural family planning method as it does not offer protection. Women with some medical conditions are disadvantage to using natural family planning because such conditions disturb the functioning of hormones causing irregular menses and this makes it difficult to follow the natural cycle of menstruation.

Studies which were conducted in America suggested that natural family planning is not taught widely, health-care professionals are not adequately prepared to teach it and are misinformed about both natural family planning options and their efficacy, and even their perceptions of it are negative and patients are not going to choose natural family planning for themselves, even if they are interested. The professional patient relationship is built on trust. If a woman perceives her provider to be discouraging of natural family planning, it is only natural for her to follow her doctor's or midwife's lead and choose an alternative method of family planning. Besides, for a woman who does not want to get pregnant, an ineffective method that her provider dislikes is not likely to be her first choice.

Meanwhile, health workers felt the main obstacles to the use of natural family planning methods is lack of knowledge, inconsistency with guidelines and high failure rates of natural family planning methods (Beeman, 2010).

The perceptions of service providers have very strong implications for the uptake since they are the providers. Since clients consider health workers as experts, their negative perception of natural family planning method, will affect its utilisation.

Natural family planning requires training, which can take as long as three months, and some clients may become pregnant while they are learning how to use natural family planning. While family planning program managers and providers can easily include natural family planning when they counsel clients about the array of contraceptive choices available, training couples to use natural family planning requires staffing and other costs such as follow-up visits to make sure couples are using the method correctly (Wayne, 2013). If the RCC encompassed natural family planning lessons in the premarital lessons, the risk of one getting pregnant while learning the method will be reduced among the Catholic couples.

Beeman (2010) in his article 'natural family planning in education and practice' indicated that, despite the positive, appealing aspects of natural family planning there remain challenges to its wider use, and to many women it is positively unappealing. Women's reasons for not choosing natural family planning include; lack of access to natural family planning instruction, perceived ineffectiveness of the method, fear of pregnancy, perception of decreased coital frequency or difficulty with abstinence, incompatibility of the method with one's lifestyle, and preference for another method. Natural family planning method is also regarded not to be as effective as the pill, sterilization, or implants which have pregnancy rates less than three. It is as effective as the barrier methods of birth spacing, the condom, foam and diaphragm which have average pregnancy rates between ten and twenty.

In the study conducted in Uganda, Catholic couples expressed the difficulty of using natural family planning methods because their husbands could not abstain from sex until the end of the fertile period. Women attributed this to alcohol consumption by the husbands. The RCC position of tolerating “reasonable” consumption of alcohol sets ground for alcohol abuse and hence failure of use of natural family planning methods.

Other women claimed to have the highest sexual urge during the fertile period while others simply confessed ignorance of natural family planning methods (Nuwagaba, 2001). The use of natural family planning requires mutual understanding and communication. Therefore, for the couple to effectively use the natural family planning method, the husband should be in support and abstain from sexual intercourse during unfertile period. Kleiman (1993) as cited in Kabonga (2011) revealed that, the periodic abstinence in natural family planning could cause frustration and resentment to the couple, especially the husband. This especially could be true with young couples who tend to have a high coital frequency. It requires highly motivated couples in order for the method to be effective.

There is low utilization of natural family planning because in Africa, customarily it is not common to discuss issues about sex. If this is the situation, then there is little chance for the couple to use the method which requires the couple to continuously communicate with each other. Unwillingness of couples to change their pattern of sexual behaviour could also discourage from using natural family planning. It is important for the Catholic couples to learn and know how to use natural family planning method before they get married so that the mutual communication is built from the beginning.

2.4. SUMMARY

This chapter covered a broader review of literature on the natural family planning. It revealed that there is adequate information on the teaching of natural family planning especially online. Literature also revealed that; Catholic physicians, professional nurses and other health care providers should be involved in helping to integrate natural family planning services as part of marriage preparation courses or other situations, as this lends credibility for natural family planning methods. Catholic hospitals should also be involved with services that are related to natural family planning and which the integration of natural family planning should be integral to their success.

On the other hand, the literature revealed that Priests and other Church leaders as well as Catholic health professionals were not so knowledgeable on natural family planning. There are also limited trained natural family planning instructors in most of the Catholic Health care facilities and Parishes. Despite the trainings being offered online internationally, their benefit to Catholics in Zambia is questionable as most of the people may have limited access to the internet. Even though the Catholic Church has strongly supported the use of natural family planning, literature reveals low utilisation at the international level and no study has been done in Zambia to assess how much natural family planning is utilised by the Catholic couples.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 INTRODUCTION

This chapter describes the research methodology that includes the study design, study setting, study population, sample selection, data collection instruments, data collection techniques, ethical consideration and pre-testing. Research methodology is essentially all procedures that researchers apply to describe, explain and predict phenomena and give the work plan of the research.

3.1. STUDY DESIGN

A study design is a set of advanced decisions that make up the master plan specifying the methods and procedures for collecting and analysing the needed information (Babbie, 2010). The study employed a descriptive cross-sectional quantitative design. A descriptive cross-sectional design is a strategy in which one or more groups of subjects are studied at one given point in time. It describes the answer to questions of who, what, where, when and how (Polit and Beck, 2010). A descriptive cross-sectional design in this study, aimed at examining the utilisation of natural family planning among the Catholic couples in Lusaka and it involved collection of data directly from the study sample at one point in time without manipulating the variables. It was suitable for the study because it provided a good quick picture of prevalence of the outcome and was relatively inexpensive.

3.2. STUDY SETTING AND POPULATION

The study was conducted in Lusaka province, the capital city of Zambia and part of the Central province which according to the RCC boundaries fall under the Lusaka Archdiocese. There are seven Deaneries (Zones) in Lusaka with a total of 58 Parishes (Wojciech, 2010). The Parishes or study sites were 2 Parishes per Deanery which were identified after carrying out a sampling procedure.

The researcher decided to conduct the study in Lusaka Province because it is the largest, highly populated Diocese of the RCC in Zambia and it was convenient to the researcher. Respondents were interviewed from their respective Parishes as they attended Mass.

3.2.1 Target population: refers to the entire group of people or objects to which the researcher wishes to generalize the study findings (Polit and Beck, 2012). In this study, the target population were all the Catholic couples in Lusaka, whose marriages were blessed in the RCC.

3.2.2 Accessible population: refers to the portion of the population to which the researcher has reasonable access may be a subset of the target population (ibis). In this study, the accessible population were Catholic couples whose marriages were blessed in the RCC and who met the sampling criteria established by the researcher. According to ADL report (2016-2017), each Parish had approximately 936 couples whose marriages were blessed in the RCC. Therefore, the population for this study included 13, 104 Catholic couples from the 14 Parishes in the ADL whose marriages were blessed in the RCC.

3.3. SELECTION OF PARTICIPANTS, SAMPLING METHODS AND SAMPLE SIZE

Sampling is the process of selecting individuals for a study in such a way that individuals represent the larger group from which they were selected (Polit and Beck, 2010). In this study, the researcher used probability multi stage sampling method. Multi stage sampling proceeds in stages and it involves more than one sampling method (Babbie, 2010). At the first stage, cluster sampling method was used. Cluster sampling involves selection of study units (clusters) instead of the selection of study units individually. Cluster is a group of sampling units such as households, schools or geographical areas and it is the primary unit of selection (WHO, 2015).

The clusters that the researcher used were the already existing geographical areas of the RCC which are called Deaneries and these are; St Agnes, St Bartholomew, St Clare, Maria Goretti, St Matthias the Apostle, St Salome and St Theresa of Calcutta.

At the second stage, simple random sampling was used to select the Parishes from the sampled deaneries. This sampling method is applicable when the population is small, homogenous and readily available (Babbie, 2010). The researcher used this method of sampling because it has a high probability of achieving a representative sample. A list of all the Parishes in each selected deanery was made as a sampling frame and two Parishes were selected randomly, namely; St Agnes, St Gabriel, St Theresa, St Paul, St Joseph (Kanyama), Christ the King, St Joseph (Chilenje), Holy Spirit, Christ the Redeemer, St John the Baptist, Mary Mother of the Redeemer, St Peter, Cathedral of the Child Jesus and Divine Mercy.

The final stage was the selection of participants and systematic sampling method was used. Systematic sampling method is used when elements to be selected are serially numbered on the sampling frame (Polit and Beck, 2010). Individual couples were selected at a regular interval from the sampling frame after randomly selecting a number from the first interval (linear systematic). Couples were selected from the marriage register (sampling frame) at each selected Parish using the K^{th} interval.

The sample size was based on Kish Leslie's formula

$$n = \frac{Z^2 \times P(1-P)}{D^2}$$

$$n = 1.96^2 \times 0.5 \times 0.5 / 0.05^2$$

$$n = 3.8416 \times 0.25 / 0.0025$$

$$n = 3.8416 \times 100$$

$$n = 384$$

➤ 384 couples for 14 Parishes

➤ 27 couples per Parish

Where, n= Number of respondents needed, P = Estimated proportion of Catholic couples using natural family planning. Z is 1.96 (standard normal variant at 95% confidence interval), d = $\pm 5\%$ = ± 0.05 is the precision and since the population size is more than 1000 (13, 104), the population size will not be adjusted.

3.4. ELIGIBILITY CRITERIA

The eligibility criteria for this study are indicated below:

Inclusion Criteria

Catholic couples whose marriages are blessed in the RCC.

- Parishioners of the study areas.
- Married for more than 1 year.
- Willing to give informed consent.

Exclusion criteria

- Couples where one partner is not Catholic.

3.5. DATA COLLECTION TOOL

A semi-structured interview schedule was used in this study to collect data from the respondents. The researcher had a list of pre-set questions in form of a typed interview. These questions were mostly closed with a few open ended. McLeod (2014) has outlined some of the advantages of a structured interview schedule such as being easy to replicate because a fixed set of closed questions are used, which are easy to quantify. Additionally, semi-structured interviews are fairly quick to conduct as many interviews can take place within a short period of time. The interview schedule can also be used on both the literate and the illiterate Catholic couples. In this study, the semi-structured interview schedule comprised four (4) sections. Section A consisted of questions on the respondents' demographic data, section B comprised questions eliciting information on knowledge level of natural family planning method; section C had questions on utilisation of natural family planning and Section D, questions on service related factors.

Data collection technique

The data collection technique that was used for this study was face to face interviews. The purpose of the study was explained to all respondents that privacy and confidentiality was upheld at all times during the interview and that those respondents who desire to opt out were free to do so and would suffer no consequences. After the respondents agreed to participate in the study, they were asked to sign a consent form or append thumb prints on the form as evidence for agreeing to participate in the study. The study participants were interviewed using an interview schedule in a private place for 20 to 30 minutes. Self-introduction was made by the researcher and research assistants to each participant before starting each interview to create rapport and make participants relax. Interviewers were expected to follow instructions on interview schedule to standardize the interview technique. Questions were asked in the way they were written, without influencing the answers. Questions not understood were merely repeated without paraphrasing them or indicating the direction of the answer. All responses were recorded immediately to avoid missing out the information. At the end of each interview, respondents were given time to ask questions, which were answered accordingly. Respondents were thanked at the end of each interview. The researcher then sorted out the interview schedules; put them in one big envelop and secured then in a bag. All interviews were conducted between 09:00 and 16:00 hours.

Pilot Study

“A pilot study is a small scale version of the actual study, conducted with the purpose of testing and potentially refining the research plan (Dampsey and Dampsey, 2000)”. The purpose of the pilot study was to find out how feasible the study was, how valid and reliable the data collection tool was and how possible it was to process and analyse the data collected. The pilot study tested the relevance and practicability of the newly developed data collection tool and it also enabled necessary adjustments to be made on the interview guide before the major study.

The Pilot study was conducted at Assumption of Mary Parish in Mazabuka and a semi-structured interview schedule was administered to 38 couples which is 10% of the main study sample size. This study setting was chosen for the pilot study as it had similar characteristics with the actual study place or area.

Validity

Validity is the process that entails whether the instrument will gather the expected data or not. It measures the degree to which the instrument can provide accurate data as required by the researcher (Polit and Beck, 2010). The validity of the instrument that was used in this study was measured by pre-testing it. During the pre-test, participants were asked if there were questions they did not understand. This allowed room for alteration of the tool when necessary. Open-ended questions in the interview schedule provided an opportunity to participants to add their own ideas thereby bringing out issues not thought of when designing the data collection tool.

Reliability

Reliability measures the extent to which the same results would be obtained with repeated trials (Babbie, 2010). The reliability of the instrument used in this study was maintained by ensuring that all the independent variables as well as the confounders of the study were captured in the interview schedule.

3.6. DATA MANAGEMENT AND STORAGE

Data was checked for accuracy, completeness and consistency in responses. Then it was categorised, coded, entered and analysed using Statistical Package for Social Sciences (SPSS). To analyse the data descriptive statistics, Chi square test and Logistic regression was used. Logistic regression allows one to assess how well the set of predictor variables predicts or explains the categorical dependent variable. It also provides an indication of the relative importance of each predictor variable or the interaction among the predictor variable (Pallant, 2010).

In this study the variables under study were assessed on how each independent variable predicted the dependent variable. Chi square and Logistic regressions were used since the dependent variable is categorical. The confidence interval for the study was set at 95% and level of significance level was achieved if p value was < 0.05 .

3.7. ETHICAL AND CULTURAL CONSIDERATIONS

Ethical approval was sought from the University of Zambia Biomedical Research Ethics Committee (UNZABREC) for clearance and permission to conduct the study. Permission was obtained from the Arch-Bishop of Lusaka to conduct the research from the Parishes within the Archdiocese of Lusaka. The purpose of the study was explained and a written consent was obtained from each couple before the study. Those that did not consent to participate in the study were reassured that they would not suffer any consequences as a result of not participating. Those who consented were asked to sign or insert a thumb print on the consent form, which was explained fully to them. The participants were informed that participation in the study was purely on voluntary basis. The respondents were not remunerated in any way.

Issues pertaining to family planning are of sensitive in nature as they deal with sexual and reproductive life of the study participants. It was expected that some of them may not like to discuss in the open. Most of the Catholic couples may not be comfortable to discuss issues to do with artificial methods of family planning methods. Therefore, the interview guide was administered in privacy and respondents were assured of anonymity by using serial numbers on the interview guide instead of writing their names. After data collection, the interviews guides were kept under lock and key for security and confidentiality. Respondents were not subjected to any physical harm as the study did not involve invasive procedures.

CHAPTER FOUR

4.0 DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 INTRODUCTION

This section describes data analysis, characteristics of participants and the findings of the study on utilisation of natural family planning among Catholic couples in Lusaka. Data was collected using an interview schedule. The response rate was that, out of the calculated sample size of 384, only 231 couples participated in the study, giving a response rate of 60 percent. The respondents were drawn from fourteen Parishes within the Archdiocese of Lusaka.

4.2 DATA ANALYSIS

The data was processed and analysed using Statistical Package for Social Sciences (SPSS) version 22. The proportions were reported for each category in frequency tables. Graphical presentation depicts the respective variable categories in form of bar graphs. To test the association between the dependent categorical variables and each independent variable which are also categorical Chi-square test was used. Chi-square test was used to measure the association between utilisation of natural family planning method and other variables. The significant level was set at 0.5%. A few variables have been used such as years in marriage, type of marriage and number of children. Other factors such as availability and accessibility of service providers in Parishes have also been measured. Variables that showed significant relationships were subjected to Binary logistic regression model and finally to Multi-variate Binary Logistic Regression.

4.3 PRESENTATION OF FINDINGS

The study findings were presented according to the sequence of the questionnaire and were presented in frequency tables, graphs, pie charts and cross tabulations. The

cross tabulation of variables helped show relationships between the major study variables.

4.4 SECTION A: SOCIO DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

This section consists of the frequency table representing the number of years in marriage, type of wedding, age of the last child, and number of children couples wished to have.

Table 3: Social demographic characteristic of the study population (n= 231)

Demographic data	Frequency	Percentage
Age of marriage		
1-4	29	12.6
5-9	29	12.6
10-14	68	29.4
More than 15years	105	45.5
Total	231	100
Type of wedding		
White wedding	101	43.7
Marriage blessing	130	56.3
Total	231	100
Number of children		
None	10	4.3
1-2	54	23.4
3-4	161	69.7
More than 4	6	2.6
Total	231	100
Age of last child		
0-2	69	29.9
2-4	54	23.4
4-6	106	45.9
6-8	2	0.8
Total	231	100
How many more children		
None	12	5.2

1-2	22	9.5
3-4	197	85.3
Total	231	100

Table 3 indicates that most of the couples 105 (45.5%) were in marriage for more than 15 years, 29.4% were in marriage for 10 to 14 years while 12.6% were in marriage for 1 to 4 years and 5 to 9 years respectively. Slightly above half of the respondents 56.3% (130 couples) had marriage blessing while 43.7% (101 couples) had white wedding. On the number of children, the majority 69.7% (161 couples) had 3 to 4 children, 23.4% (54 couples) had 1 to 2 children, 4.3% (10 couples) had no children and only 2.6% (6 couples) had more than 4 children. Majority of the couples 106 (45.9%) had their last child aged between 4 to 6 years, 69 couples' (29.9%) last child was aged below 2 years, 54 couples (23.4%) were aged between 2 to 4 years and only 2 couples (0.8%) had their last child aged above 6 years. More than three quarters of the respondents 85.3% indicated that they still intended to have 3 to 4 more children, 5.2% indicated that they did not intend to have any more children, 9.5% indicated that they planned to have 1 to 2 more children.

4.5. SECTION B: RESPONSES ON LEVEL OF AWARENESS ABOUT NATURAL FAMILY PLANNING BY CATHOLIC COUPLES

This section explored the knowledge levels of couples on natural family planning. There were six (6) questions on the questionnaire and below is the description of the findings.

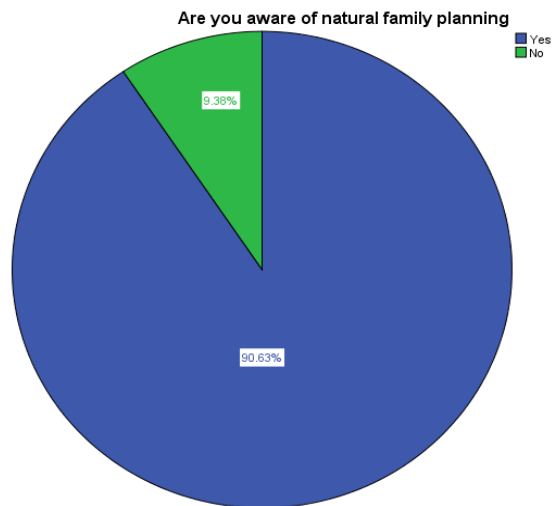


Figure 2: Awareness of natural family planning (n=231)

On the level of awareness about natural family planning, the majority 90.6% (209 couples) were aware of natural family planning while 9.4% (22 couples) indicated not having ever heard of the method.

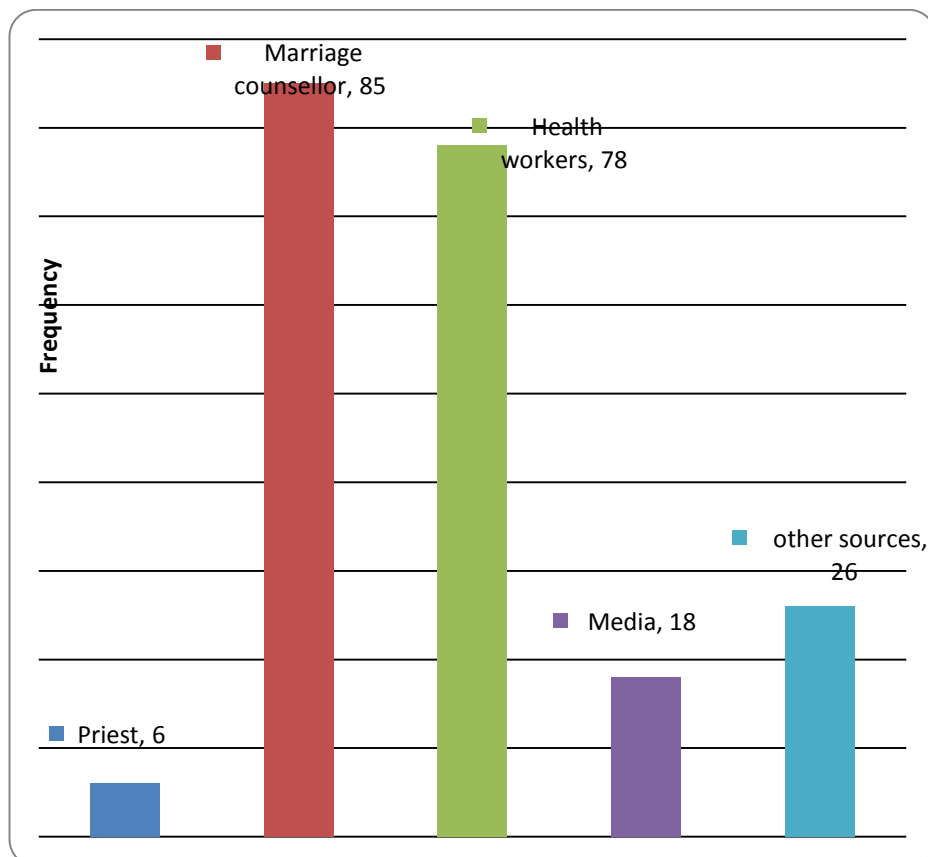


Figure 3: Sources of information about natural family planning (n=209)

Figure 3 indicates that 37% of the respondents (85 couples) obtained information about natural family planning from marriage counsellors, 34% (78 couples) from health workers, 11.3% (18 couples) from other sources such as friends, 7.8% (18 couples), from the media, and only 2.6% (6 couples) heard from the Priests.

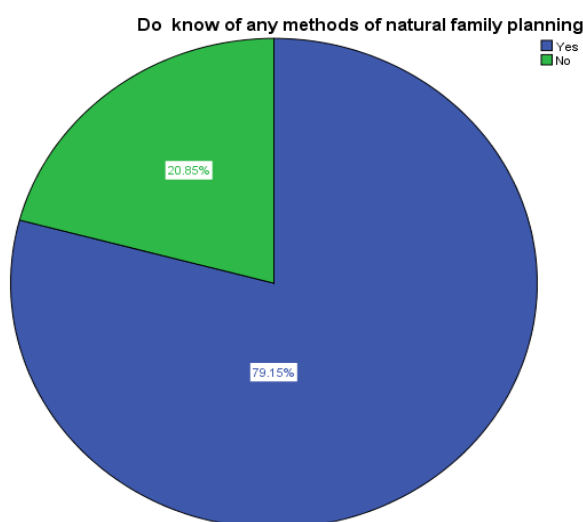


Figure 4: Knowledge of natural family planning methods (n=231)

As indicated in figure 4, most of the respondents 79% (182 couples) affirmed knowing methods of natural family planning and only 21% (49 couples) did not know any natural family planning method.

Table 4: Definition of natural family planning method (n= 210)

Definition	Frequency	Percentage
Method does not use any medicine	110	52.4
Calendar method/safe days	95	45.2
Withdraw methods	3	1.4
Condoms	2	1.0

Total	210	100
--------------	------------	------------

Of the respondents who affirmed that they were aware of different methods of natural family planning (see table 4), 110 couples (52.4%) defined natural family planning as a method that does not use any medicine, 95 couples (45.2%) as calendar/safe days method, 3 couples (1.4%) as withdraw and 2 couples (1%) as use of condoms.

Table 5: Artificial contraceptive methods and the Catholic Church (n= 231)

	Frequency	Percentage
Yes	38	16.5
No	176	76.2
Don't know	17	7.3
Total	231	100.0

Table 5 shows most couples 176 (76.2%) indicated that the Catholic faith did not allow use of artificial methods of contraception, 38 couples (16.5%) indicated that the RCC allows artificial methods and 17 couples (7.3%) did not know the teaching of the RCC on the use of artificial methods of contraception.

4.6 SECTION C: RESPONSES ON UTILISATION OF NATURAL FAMILY PLANNING

This section covers the responses on utilisation of natural family planning. There were seven (7) questions on the questionnaire and the findings are described below:

Table 6: Utilisation of natural family planning method (n= 231)

	Frequency	Percentage
Yes	89	39
No	141	61
Total	231	100.0

On the aspect of utilisation, 39% (89 couples) indicated that they always used natural family planning method while 61% (141 couples) did not constantly use natural family planning as indicated in Table 6.

Table 7: Ability to use natural family planning method (n= 89)

	Frequency	Percentage
Very easy	61	69
A bit easy	19	21
Complicated	9	10
Total	89	100

Results in Table 7 revealed that out of the 89 respondents that indicated that they used natural family planning methods, 69% (61 couples) affirmed that the method was very easy to use, 21% (19 couples) indicated a bit easy and only 10% (9 couples) indicated that the method was complicated.

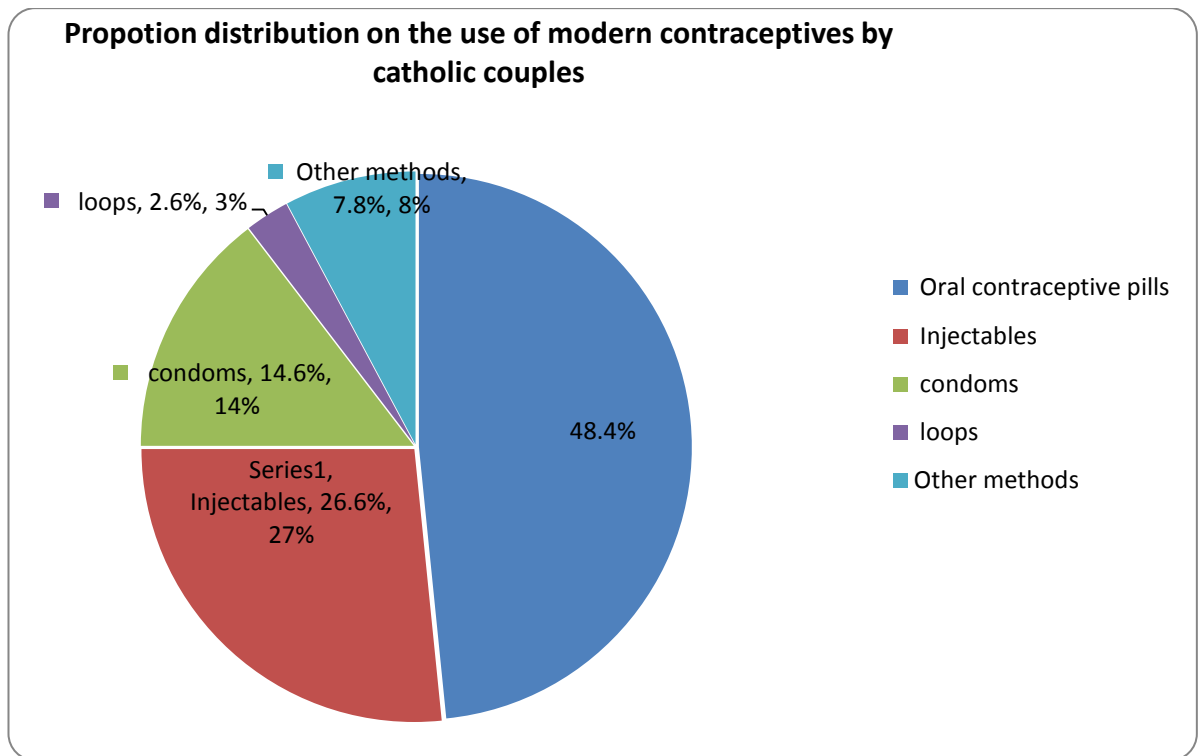


Figure 5: Patterns of use of modern contraceptive methods (n= 141)

In figure 5 above, of the 141 couples who used other methods of family planning, the majority 48.4% (68 couples) used oral contraceptives, 26.6% (37 couples) used injectable, 14.6% (21 couples) used condoms, 7.8% (11 couples) used other methods like Jadalle and 2.6% (4 couples) used the loop.

4.7. SECTION D: RESPONSES ON SERVICE RELATED FACTORS

This section covers the responses on the service related factors. There were six (6) questions on the questionnaire and the findings are described below:

Are there service providers for NFP at the Parish

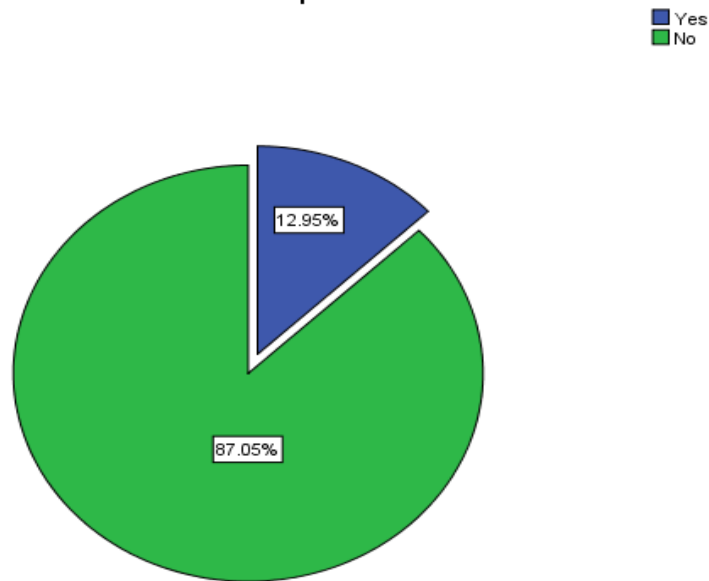


Figure 6: Availability of service providers in Parishes (n=231)

On the availability of natural family planning providers, figure 6 shows most of the respondents 87% (200 couples) affirmed that the Parish did not provide natural family planning services and 13% (31 couples) stated that service providers were available in their Parishes.

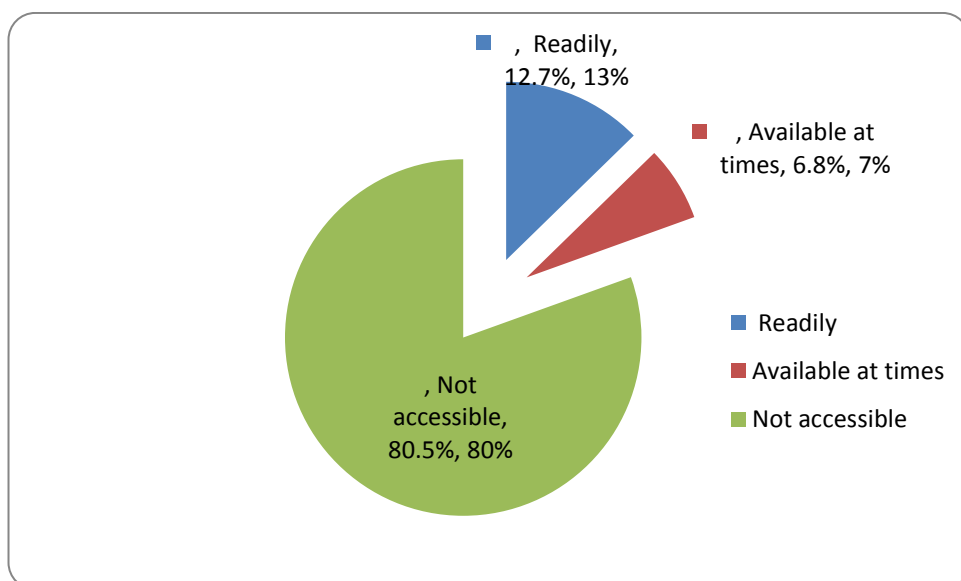


Figure 7: Accessibility of natural family planning providers (n=231)

Most couples (80.5%) indicated that they did not have access to natural family planning in their Parishes or outside the Parish, 6.8% indicated that the services were available at times while 12.7% indicated that services were readily available.

Table 8: Effectiveness of natural family planning method (n= 231)

	Frequency	Per cent
Very effective	89	38.5
Effective at times	93	40.3
Not effective	49	21.2
Total	231	100.0

About 40.3% of the respondents as shown in table 8 indicated that, natural family planning was effective at times, (38.5%) pointed out that it was very effective while (21.2%) indicated that natural family planning was not effective at all.

Table 9: Lessons on Natural Family Planning method (n= 231)

	FREQUENCY	PERCENT
Yes	157	68
No	74	32
Total	231	100

More than two thirds (68%) of the respondents affirmed receiving information on natural family planning during their marriage lessons while 32% indicated that they did not learn anything on natural family planning during their marriage lessons.

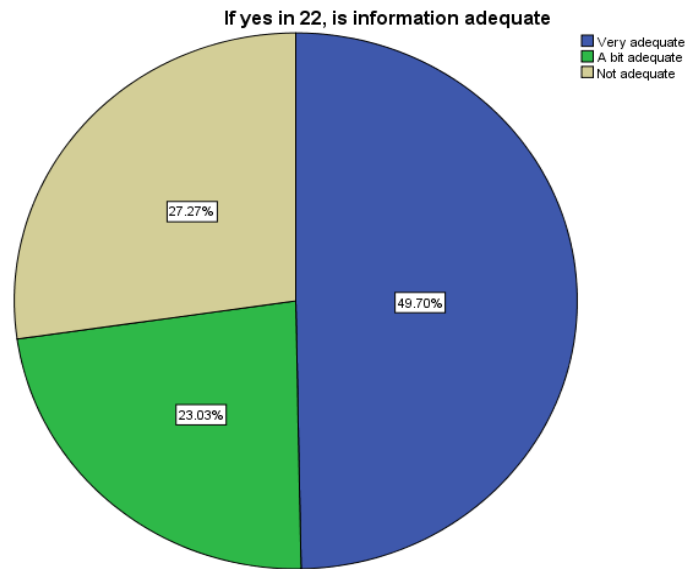


Figure 8: Adequacy of natural family planning information in marriage lessons (n=157)

Of the respondents who affirmed having received information on natural family planning during their marriage lessons, 49.7% indicated that the information was very adequate, 23% said that the information was a bit adequate and 27.3% said that it was not adequate.

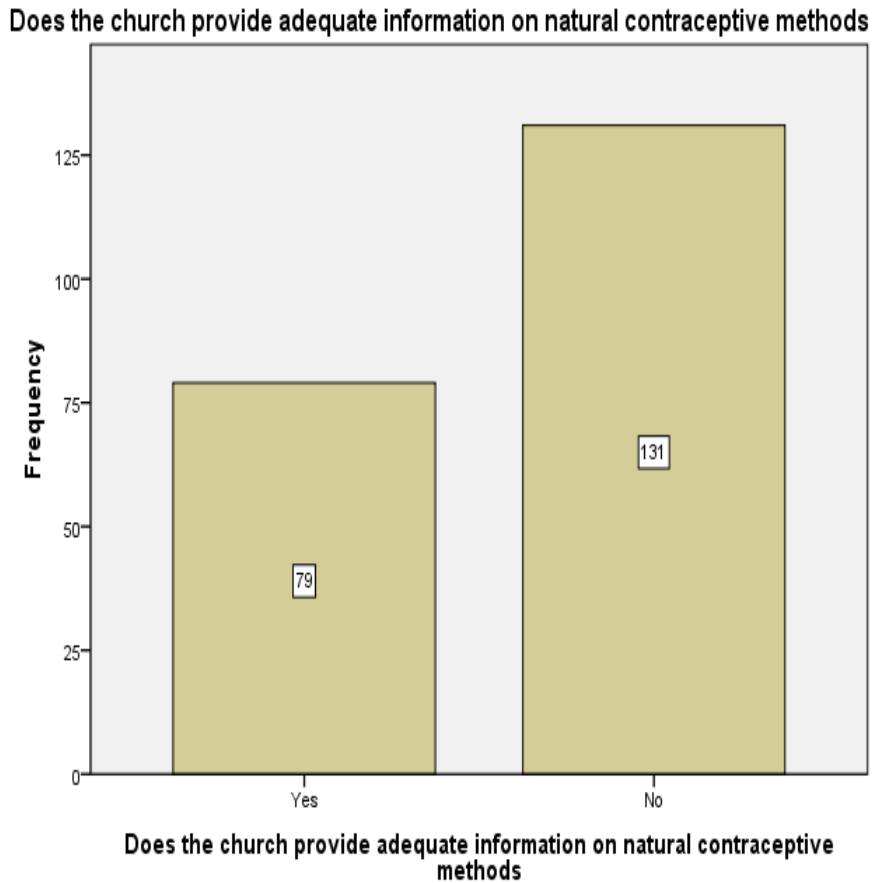


Figure 8: Adequacy of natural family planning information provided by the Church (n=231)

Most of the respondents 131 out of the total 231 indicated that the Church does not generally provide adequate information on natural family planning and 79 respondents indicated that the Church provides adequate information, with 21 respondents not sure.

4.8. SECTION E: RESPONSES ON THE RELATIONSHIP BETWEEN DEPENDENT AND INDEPENDENT VARIABLES

In this section, the dependent or outcome variable (utilisation of natural family planning) was associated with the independent variables which are; years in marriage, type of marriage, number of children, availability of service providers, accessibility of services and the adequacy of information.

Table 10: Chi-square test

Independent Variable	P- Value
Years in marriage	0.002
Type of marriage	0.298
Number of children	0.201
Availability of service providers	0.001
Accessibility of services	0.004
Adequacy of information	0.0001

Table 10 shows associations between dependent variable and independent variables of the study. The chi-square test revealed that, there was a significant relationship between the years in marriage and the utilisation of natural family planning with a P-value of 0.002 (<0.05). There was no significant relationship between the type of marriage and the utilisation of natural family planning as shown by a P-value of 0.298. Furthermore, the study reveals no significant relationship between the number of children and the utilisation of natural family planning as evidenced by the P- value of 0.201 (>0.05).

The results show statistical significant relationship between availability of service providers and the utilisation of natural family planning with a P-value of 0.001. Additionally, the study revealed that there was a significant relationship between accessibility of natural family planning services and the utilisation of natural family planning with a P- value of 0.004. Likewise, there is a significant relationship between the adequacy of information and the utilisation of natural family planning as indicated by the P- value of 0.001.

Table 11: Univariate Binary Logistic Regression

Variables that showed significant relationship in Chi- square test were subjected to Univariate Binary Logistic Regression.

Independent variable	Crude Odds Ratio (95%CI)	Adjusted Odds Ratio (95%CI)	Adjusted P-value
Years in marriage	1.083	0.838-1.399	0.542
Availability of service providers	7.606	2.947-19.630	0.1001
Accessibility of services	1.211	0.931-1.575	0.154
Adequacy of information	3.467	1.909-6.294	0.001

Table 11 indicates that, there was no significant relationship between years in marriage, Accessibility of services and the utilisation of natural family planning with a P-value of 0.542 and 0.154 (>0.05). The results reveal significant relationship between availability of service providers (P-value 0.001) and the utilisation of natural family planning. There is also significant relationship between adequacy of information and the utilisation of natural family planning with P-value of 0.001

Table 112: Multi-variate Binary Logistic Regression

Variables that showed significant relationship in Univariate Binary Logistic Regression were further subjected to Multi-Variate Binary Logistic Regression test.

Independent variable	Crude Odds Ratio (95%CI)	Adjusted Odds Ratio (95%CI)	P-value
Availability of service providers	4.928	1.700-14.285	0.003
Adequacy of information	2.022	1.014-4.035	0.046

Table 12 revealed significant relationships between the availability of service providers in Parishes and the utilisation of natural family planning with a P- value of 0.003. Additionally, the study shows that there is a significant relationship between utilisation of natural family planning among Catholic couples and the adequacy of the information provided by the Catholic Church in Lusaka with a P- value of 0.046.

CHAPTER FIVE

5.0 DISCUSSION OF FINDINGS

5.1 Introduction

This chapter discussed the results of the study on utilisation of natural family planning among Catholic couples in Lusaka. Additionally, it also presented the recommendations, limitations and conclusion. The study set out with the aim of examining the levels of utilisation of natural family planning methods among Catholic couples in Lusaka. The main aim of the study was to assess the utilisation of natural family planning among Catholic couples in Lusaka.

5.2 Socio-demographic variables

The findings in Table 3 showed that most of the respondents (45.5%) were married for more than 15 years, and 56.3% of the respondents had their marriages blessed in the Roman Catholic church after being in marriage for some time (marriage blessing) while 43.7% had white weddings. The table further displays the number of children that couples had, 69.7% of the respondents had 3 to 4 children. The age of most of the respondents' last child was 4 to 6 months and 85.3% intended to have 3 to 4 children.

5.3 Awareness level on natural family planning

The first objective of the current study was to assess the Catholic couples' awareness of natural family planning. The level of awareness means how well Catholic couples understand natural family planning. To determine the level of awareness of Catholic couples on natural family planning, 5 item questions were included on the data collecting instrument. These were: Have you ever heard of natural family planning? If yes, where did you hear it from? In your own words, what is natural family planning? Name any methods of natural family planning you know. Does the Roman

Catholic Church allow the use of other methods of family planning such as pill, injectable etc.

With regards to the respondents, majority 90.6% (209 couples) were aware of natural family planning while 9.4% (22 couples) indicated not having ever heard of the method (Figure 2). These findings do not collate with the utilisation of natural family planning (39%) even though they were aware of the method. The findings are in line with Kabonga (2010)'s study, which revealed 74% of the respondents having heard of natural family planning and 58.5 percent did not use the method despite being aware of them.

On the other hand, the findings are contrary to Nakiboneka and Maniple (2008), which showed that only half of the respondents indicated having heard about the teaching of natural family planning and others had never heard about it at all. There are several possible explanations for these findings one being that, couples can be aware of the method but they do not have adequate information to practice it. Other reasons can be attributed to their beliefs and how they perceive its effectiveness as supported by the Health Belief Model (HBM) that "people's beliefs about health problems, perceived benefits and self-efficacy determines whether they will get engaged or not in health promoting behavior" (Ronsenstock, 1996).

On the source of information about natural family planning, the study found that, 37% of the respondents (85 couples) obtained information from marriage counsellors, 34% (78 couples) from health workers, 11.3% (18 couples) from other sources such as friends, 7.8% (18 couples) from the media, and only 2.6% (6 couples) heard from the Priests (Figure 3). As mentioned in the literature review by Guzman et al. (2013), that, participants received information on Fertility Awareness Based Methods from a variety of sources, including friends, family members, partners, resource counsellors and print media. Similarly, Johnson (2013) indicates that besides health care professionals, the internet, family members and friends were the most frequent sources of advice on family planning methods. Furthermore, the findings are in agreement with Nakiboneka and Maniple (2008), who stated that, Priests do not give the expected teaching to the

intending couples despite them being the main teachers of the Church and what they say is considered as the teaching of the RCC.

If Priest got fully involved in the teaching of natural family planning to both the will be and the married couples, most Catholic couples were going to comply with the Church's teaching and its uptake would improve as Priests are the activists of religious morals and doctrines.

Most of the respondents 79% affirmed knowing at least one method of natural family planning and 21% were not aware of any method (Figure 4). Of the respondents who affirmed that they were aware of different methods of natural family planning, 110 couples (52.4%) stated it as a method of controlling fertility without using any medicine, 95 couples (45.2%) as calendar/safe days method, 3 couples (1.4%) as withdraw and 2 couples (1%) as use of condoms (Table 4). The findings are similar to CSO (2013), where the results on knowledge of the fertile period among Zambian women show that 14% of all women did not know about the fertile period.

However, findings are in contrast with a study conducted by Kabonga (2011), which revealed low knowledge levels of 41.6% who could state at least one natural family planning method. Additionally, Tolosi (1993), stated that majority of clients had no knowledge about natural family planning. The improvement in the awareness levels can be associated with advancement in technology which is another source of information as indicated by Fehring (2011), that online information can be an effective source of knowledge on natural family planning. Another assumption can be made that the 52.4% who stated it as a method of controlling fertility without using any medicine might not correctly know the method but just literally interpreted the name "natural family planning" when in fact, the methods were suppose to be; calendar rhythm, basal body temperature, cervical mucus method and sympto thermal method. It is also important to note that, some couples considered the use of condoms and withdraw method as methods of natural family planning when authentically they are not and they are not allowed by the Roman Catholic Church.

Most couples 176 (76.2%) in this study indicated that the Catholic faith did not allow use of artificial methods of contraception, 38 couples (16.5%) indicated that the church allows artificial methods and 17 couples (7.3%) did not know the teaching of the RCC on artificial methods of contraception (Figure 5). The findings are consistent with Fehring (2009), which reports that many respondents had never heard about the official position of the RCC on natural family planning. The reason to this can be linked with the point that Priests do not preach about it, hence what couples hear from the lay faithful might not be taken as the official teaching of the Church.

5.4 Utilisation level of Natural family planning among Catholic couples.

The second objective of the current study was to assess the level of utilisation of natural family planning among couples. Table 6 reveal that, 61% (141 couples) did not constantly use natural family planning while 39% (89 couples) indicated that they always used natural family planning method. This study result is remarkably higher than the findings from the study conducted in United States of America which revealed that, only 1.5% of Catholic women in the reproductive age were using periodic abstinence (Schu, 2010). Similarly, the findings of the National Survey of Family growth conducted in USA which indicated low utilisation (2%) of natural family planning methods by Catholics (Guttmacher, 2012).

The increase in the utilisation of natural family planning method can be attributed to its advantages such lack of side effects as compared to hormonal methods of contraception as cited by Beeman (2010). On the other aspect, the findings must be interpreted with caution as some of the methods listed in Table 4 are not among the recommended methods of natural family planning. This means that, couples who consider use of condoms or withdraw method as natural family planning method could have indicated that they comply to the teaching of the Church when in fact not. Nevertheless, utilisation of natural family planning among Catholic couples still remains low and below 50% (Table 6).

Results also revealed that out of the 89 couples (39%) that indicated that they used natural family planning methods, 69% (61 couples) affirmed that the method was very easy to use, 21% (19 couples) indicated a bit easy and only 10% (9 couples) indicated that the method was complicated (Table 7). The study results can be ascribed to availability of information and lessons online that provides client education in the Sympto-Thermal Method on the Internet (Johnson, 2013) making the uptake of natural family planning user friendly.

Some of the possible explanations as to why some respondents indicated that the method was complicated to use could be due to the fact that, natural family planning requires training, which can take as long as three months, and some clients may become pregnant while they are learning how to use it (UNFPA, 2000). A similar study conducted in Uganda by Nakiboneka and Maniple (2008), Catholic couples expressed the difficulty of using natural family planning methods because their husbands could not abstain from sex until the end of the fertile period because of alcohol consumption by the husbands.

Of the 141 couples who used other methods of family planning, the majority 48.4% (68 couples) used oral contraceptives, 26.6% (37 couples) used injectable, 14.6% (21 couples) used condoms, 7.8% (11 couples) used other methods like Jadalle and 2.6% (4 couples) used the loop (Figure 5). The study findings are in line with a survey done in Spain and Germany which revealed that physicians both specialists and primary care had the greatest influence in choice of contraceptive method, with the pill being the most frequently recommended methods (Johnson, 2013). The high utilisation of oral contraceptives can be associated with the fact that they are easy to use as they do not need a professional to be administered. Injectable are also highly utilised as a client only needs to go to the health facility once in two and three months respectively.

5.5 Service related factors influencing utilisation of natural family planning among Catholic couples.

The current study also assessed service related factors influencing utilisation of natural family planning among Catholic couples. The study attempted to determine the availability of natural family planning providers in Parishes. The findings revealed that, most of the respondents 87% (200 couples) affirmed that the Parish did not provide natural family planning services and only 13% (31 couples) stated that service providers were available in their Parishes (Figure 6). The results do not reflect the directive given by the Pope who is the head of the RCC that, every Parish to have trained natural family planning instructors so as to make services accessible to all Catholic couples (Fehring, 2009).

Most couples (80.5%) indicated that they did not have access to natural family planning services in their Parishes or outside the Parish, 6.8% indicated that the services were accessible at times while 12.7% indicated that services were readily accessible (Figure 7). The findings of the study are dissimilar to the reports by Fehring (2010) in USA where many Parishes, Churches, or Dioceses have local natural family planning classes and they provide a directory of trained instructors who can be contacted. Supposition to the findings could be that, some Parishes may have service providers but not known by the members and since culturally, family planning matters are not openly and publicly discussed, some couples may not be able to ask for them.

The Parishes should extensively advertise the natural family planning service so that the information is widely received and service providers are well known and be able to make the services accessible.

The percentage distribution of the effectiveness of natural family planning is indicated in Table 8 and the findings revealed that, 38.5% of the respondents pointed out that it was very effective, 40.3% indicated that natural family planning was effective at times, while 21% indicated that natural family planning was not effective at all.

The results are not consistent with Studies conducted in America which revealed that health workers regarded natural family planning to have high failure rates (Beeman, 2010). On the contrary, the Church confirms the effectiveness of natural family planning method that when used correctly, its effectiveness is very high (98-99%) just like the artificial family planning methods (Aran, 2016).

Table 9 shows that, 68% of the respondents affirmed receiving information on natural family planning during their marriage lessons while 32% indicated that they did not learn anything on natural family planning. The research findings are not corresponding with the reports by Nakiboneka and Maniple (2008) which stated that most Catholic married couples were not instructed about natural family planning and instead privately consulted their friends who were using the method. Despite the majority having received the information during their marriage lessons, its adequacy is uncertain as it does not reflect the utilisation.

Of the respondents who affirmed having received information on natural family planning during their marriage lessons, 49.7% indicated that the information was very adequate, 23% said that the information was a bit adequate and 27.3% said that it was not adequate (Figure 8). The findings show that almost half of the respondents affirmed receiving adequate information during the premarital lessons yet the utilisation remains low. For a service to be adequately utilised, information is very important as this leads to acceptability of the service. On the other hand, other factors such as accessibility and availability can also affect the utilisation of natural family planning. Thus it is not always automatic that people will adopt a practice when they have adequate information about it.

Most of the respondents 131 (56.7%) out of the total 231 indicated that the Church does not generally provide adequate information on natural family planning and 79 (34.2%) respondents indicated that the Church provides adequate information, with 21 (9.1%) respondents not sure (Figure 9). These findings are in support of the Johnson (2013), which reports that many respondents had never heard about the official position of the RCC.

The findings can be attributed to lack of trained natural family planning providers to offer pre-marital counselling in Parishes. If Priests and health care providers had adequate knowledge and involved in the teaching of couples on natural family planning, more couples were going to be knowledgeable about the method. The findings of the study which was conducted in Uganda were many Catholic Priests were found to be un-informed or were actually informed by the laity that natural family planning methods do not work (Nakiboneka and Maniple, 2008). If the Priests are not well informed, then they will not be confident enough to preach it. Conversely, where Priests were knowledgeable, respondents doubted Priests as a source of reliable information on natural family planning methods since they are celibate (Ibis).

5. 6 Association between utilisation of natural family planning and the determinants to utilisation of natural family planning among Catholic couples.

Utilisation of Natural Family Planning has been associated with many factors by various studies. In this study, only availability of service providers and adequacy of information was significantly associated with utilisation of natural family planning as indicated in Table 12. The current study revealed significant relationship between the availability of service providers in Parishes and the utilization of natural family planning with a P- value of 0.003. As indicated by Fehring (2009), if every Parish in Lusaka had trained instructors then the utilisation of natural family planning would be high because the services will be available to all Catholic couples. Natural family planning services should be available within reasonable reach of those who need

them and of opening hours, appointment systems and other aspects of service organisation and delivery that would allow couples to access services upon demand.

Catholic couples should always have the right to use natural family planning services whenever they need them. Additionally, basic training in natural family planning takes a minimum of three months hence the need for constant consultation and follow-ups for a couple to gain the confidence and proficiency to use the method as indicated by Wayne (2013).

The Catholic Church in Lusaka can improve the utilisation of natural family planning if a deliberate policy was put in place to ensure that each Parish provided trained natural family planning providers with a directory to ensure availability and accessibility to all. Additionally, health professionals can be active in promoting natural family planning in Catholic Parishes, especially in helping with marriage preparations. Natural family planning can also be made available in Catholic health facilities and other health facilities where Catholic health professionals operate from as they are supposed to uphold the teaching of the Church wherever they are. There was a significant relationship between adequacy of the information and utilisation of natural family planning among Catholic couples in Lusaka with a P- value of 0.046 (Table 12). Much as the information on natural family planning is given during pre-marriage lessons, the quality is doubtful as not all marriage counsellors are trained in offering the service.

Additionally, the adequacy of the information is equally questionable as marriage lessons are only offered for three months the period that is all supposed to be dedicated to natural family planning lessons if couples were to be adequately instructed. The current study has revealed that 39% of Catholic couples interviewed consistently used natural family planning. The explanation for this paradox is that, natural family planning methods as prescribed by the Catholics require education, skills and experience because observing menstrual cycles is a technical process that requires adequate information, education and training. Accordingly, advocacy for a practice should be supported by an institution framework that provides a platform for actualising such practices.

As alluded to in the foregoing analysis, Catholic Parishes in Lusaka rarely offered natural family planning services such that couples depended on marriage counselors and health workers. Yet, the Pope emphasized the necessity of Parishes world over to provide natural family planning education. This status quo suggests that parishes at the study site have not implemented the Catholic programs that promote education and utilisation of natural family planning.

Nevertheless, the study shows that, there is no significant relationship between the number of years in marriage and the utilisation of natural family planning as confirmed by the P- value of 0.542. Furthermore, the type of marriage, number of children that couples had, and the accessibility of service providers in Parishes, did not influence the utilisation of natural family planning as confirmed by the P -values of >0.05 (Table 10 and 11).

5.7 Application of the Health Belief Model to the study results

This study used the Health Belief Model. The model suggests that people's beliefs about health problems, perceived benefits of action and barriers to action and self-efficacy explain engagement or lack of engagement in health-promoting behavior. This study established perceived susceptibility to side effects of artificial family planning hence the notable increase in the utilisation of natural family planning among Catholic couples. The findings revealed increased knowledge levels among Catholic couples with 79% knowing at least one method of natural family.

This has correspondingly made them recognize the severity of sinful act of destroying human life if using artificial family planning. Furthermore, the study has shown perceived benefits of utilising natural family planning as shown by the study findings of 78.8% which indicated the method to be effective when used correctly. Additionally, 69% of the respondents affirmed that the method was very easy to use.

As for the perceived barriers to utilisations of natural family planning, 80.5% of the respondents indicated that they did not have access to natural family planning services in their Parishes or outside the Parish and 87% of the respondents admitted that the Parish did not provide natural family planning services.

The duration of marriage, number of children and the type of marriage whether white wedding or marriage blessing were identified as some of the modifying variables. The study revealed that these variables did not influence the utilisation of natural family planning method, all with P- value of > 0.05 . The HBM proposes that a cue or trigger is necessary for prompting engagement in health-promoting behaviors. Likewise, the adequacy of information would trigger couples to utilise natural family planning. On the contrary, in this study, most of the respondents 56.7% indicated that, the Church does not generally provide adequate information on the method making it a challenge for some couples to utilise the method that they do not well understand.

5.8 Implications of the Study Findings to Nursing

5.8.1 Nursing education

The study found that 79% affirmed knowing at least one method of natural family . Out of this, only 45.2% correctly stated one of the method as calendar/safe days method while 52.4% stated it as a method of controlling fertility without using any medicine a description which does not bring out the method clearly. On the worst scenario, 5 couples mentioned withdraw and condoms as methods of natural family planning. Marriage counsellors and Health care providers should increase public awareness on all family planning methods both artificial and natural. This can only happen if family planning becomes an integral part of the Nursing and Midwifery curricular as well as the marriage counselors' curriculum.

Therefore, there is a need to strengthen this component in the above mentioned curricular and to offer in-service trainings to health care providers both professionals and non-professionals as it is done with artificial family planning methods.

5.8.2 Nursing administration

This study showed a low utilisation of natural family planning (39%) among Catholic couples. The policy makers and reproductive health coordinators should promote this method as it is as effective as other methods of family planning. There is need for qualified health care professionals to supervise marriage counselors to ensure that correct health education on natural family planning methods is intensified at service delivery points.

5.8.3 Nursing research

The study examined the utilisation of natural family planning among Catholic couples. There is a need to do future research on knowledge levels of service providers. This will help assess and improve the knowledge of both professional and non-professional service providers.

5.8.4 Nursing practice

The findings of this study showed that few respondents' in this study were utilising natural family planning methods access to the method was a problem. This could be attributed to the fact that some marriage counselors were not competent enough to provide the service and/or were not involved in offering natural family planning services in their respective Parishes. It is therefore imperative that Parishes should consider having healthcare professionals to offer this service to clients so that consistent information and clear explanations as well as trainings on natural family planning are conducted. This will promote utilisation of the service and couples will abide to the teaching of the Church.

5.9 Conclusion and Recommendation

5.9.1 Conclusion

The study assessed the utilisation of natural family planning among Catholic couples in Lusaka. Despite most of the respondents being aware of the method, its utilisation still remains low. The finding showed that only 39% of the couples utilised natural family planning. Salient findings were that service providers were not available in the Parishes and most couples did not have adequate information for them to practice the method. On the other hand, the study found that factors such as duration of marriage, number of children and the type of marriage had no significant relationship with utilisation of natural family planning.

5.9.2 Recommendations

To improve the utilisation of natural family planning among Catholic couples, the following measures should be considered:

1. The Roman Catholic Church to train and ensure that trained service providers are available in all Parishes so that natural family planning services are accessible to all.
2. The Churches Health Association of Zambia (CHAZ) needs to vigorously promote natural family planning methods if the uptake of family planning is to scale up.
3. The Roman Catholic Church in Zambia needs to establish an institutional framework to provide a platform for promoting natural family planning practices
4. The Roman Catholic Church should ensure that marriage counsellors are supervised by health care professionals such as Nurses and Midwives who are equipped with adequate information on natural family planning education so as to effectively teach couples who seek the service.

5.9.3 Future Research

The study was conducted in selected Parishes from peri-urban and urban areas within Lusaka and some characteristics may not be similar. Hence, it may be important in future to conduct a similar research at a larger scale in order to generalise the findings.

5.10 Strengths and limitations of the Study

The biggest limitation for this study was the low response rate of 60%. This can be attributed to the sensitivity of the topic hence some couples especially husbands were not willing to participate in the study. Tracing some sampled participants was also a challenge while other couples were found not to be together with their partners due to separation, death and working/ staying in different towns.

There was limited literature on the research topic done locally and hence the researcher used literature from researches done in other places which were related to the local situation. This study was descriptive in nature therefore, cause and effect relationship cannot be determined from descriptive research.

The study used a self-reported instrument to collect data from the respondents. Self-reported data is limited by the fact that it rarely can be independently verified therefore self-reported data can contain several potential sources of bias such as remembering or not remembering experiences or events that occurred at some point in the past or recalling events.

The strength of the study was its statistical procedures to analyse data therefore, biasness was minimal.

5.9.5 Dissemination and utilisation of findings

The findings of the study were presented at the public during the postgraduate seminar week 30th October, 2019 at the University of Zambia (UNZA). Then, the results will be presented to various stake holders involved in the provision of family planning services at various fora such as workshops and conferences.

The Lusaka Archdiocese, which is in charge of the study sites (Catholic Parishes), will be given a copy of the study results report. The findings will also be published in a peer reviewed Journal such as African Journal of Midwifery or Medical Journal of Zambia or any other recognised ones. In addition, copies of the bound research report will be printed and submitted to the School of Nursing Sciences, UNZA Medical Library and Main Library.

REFERENCES

- Aran, I. (2016). **Catholic Natural Family Planning - Beginning Catholic.** Available at: <http://www.beginningcatholic.com/catholic-natural-family-planning>. Accessed on 26.04.2017 at 22:12 hours.
- Archdiocese of Philadelphia (2010). **Differences between NFP and Artificial Birth Control.** Available at: <http://www.phillycatholiclife.org>. Accessed on 16.06.2018 at 18:34 hours.
- Basavanthappa B. T (2009). **Nursing Administration.** 2nd Edition, Jaypee Brothers. Mumbai, India
- Ben Bellows, Mary Nambao, Luigi Jaramillo, Roz Fanaiayan, Mardieh Dennis, Karen Hardee (2016). **“Scaling Up Family Planning in Zambia- Part 1: Assessment and Feasibility of Maintaing and Innovative program,”** Research report. Washington, DC: USA.
- Bruchalsk, J., T. (1997). **The Contraceptive Revolution and its Fruits.** Available at: www.usccb.org/prolife/programs/rlp/97rlpbru.htm. Accessed on: 11.07. 2017
- Chandra, A., Martinez G.M., Mosher W.D., Abma J.C., and Jones J. (2005). **Fertility, Family, and Reproductive Health of United States Women.** Available at: http://www.cdc.gov/nchs/data/series/sr_23/sr23_025.pdf. Accessed on 14.12.2017 at 21:30 hours.
- Doerflinger, L., A. (2012). **Natural Family Planning: An Unexpected Grace.** Available at: www.usccb.org/prolife/programs/rlp/leedorf02.htm. Accessed on 02.08.2017 at 11:20 hours.
- Fehring, R., J. (2009). **The Catholic Physician and Natural Family Planning: Helping to Build a Culture of Life.** The National Catholic Bioethics Quarterly, Vol. 9, No. 2 (Summer 2009): 305-323.
- Fehring, R.,J. (2010). **Catholic Natural Family Planning Beginning Catholic.** Available at: <http://www.beginningcatholic.com/catholic-natural-family-planning>. Accessed on 12. 09.2017 at 11:39 hours.

Fehring, R., J. (2011). **Natural Family Planning**, Current Medical Researcher. Winter/spring volume 22 number 1 and 2.

Fehring, R., J., Schnedier M., L., Barron, J. Pruszynski. (2013). **Influence of motivation on the efficacy of natural family planning**. American Journal of Maternal Child Nursing 38: 352-358.

Guzman, L., S. Caal, K. Peterson, M., R., Hickman, S. (2013). **The use of fertility awareness methods among young adult Latina and black women: what do they know and how well dot they use it? Use of FAM among Latina and black women in the United States**. Journal of *Contraception* 80: 232-238.

Hubacher, D. (2015). **A Definition of Modern Contraceptive Methods**. Available at: www.contraceptionjournal.org. Accessed on 02.04.2018 at 14:06 hours.

International Religious Freedom Report (2012). **International Religious Freedom Report**. Available at: <https://www.state.gov/documents/organization/208422.pdf>. Accessed on 15.04.17 at 17:15 hours.

Jennings, V., Haile, TL., Simmons, G., R., Spieler, J., & Shattuck, D. (2019). Perfect- and typical-use effectiveness of the Dot fertility app over 13 cycles: results from a prospective contraceptive effectiveness trial. **The European Journal of Contraception & Reproductive Health Care**, Volume 24, Issue 2, Pages 148-153. Online available at: <https://doi.org/10.1080/13625187.2019.1581164>

Johnson, S., Pion, C., and Jennings, V. (2013). **Current methods and attitudes of women towards contraception in Europe and America**. *Reproductive Health* 10:7.

Kabonga, R., (2011). **Factors influencing utilization of NFP among Child Bearing Women in Chilonga**. Northern Province Zambia.

Kaiser family planning foundation (2018). **Natural Family Planning as a means of preventing pregnancy**. Available at: <http://www.kff.org/women-health-policy/factsheet/natural>. Accessed on 16.07.2018 at 01:10 hours

LaMotte, W., W. (2016). **The Health Belief Model**. Available at: http://sphweb.bumc.bu.edu/otlt/MPH_modules/SB/BehavioralChangeTheories. Accessed on 18.04.2017 at 12:50 hours.

Lubinda, C., S. (1996). **Factors that influence low utilisation of NFP methods among child bearing women (aged 15-49 years) in Mongu urban district.** Zambia

Mansour, D., Inki, P., Gemzell-Demiellsson, K. (2010). **Efficacy of contraceptive methods: A review of the literature.** The European Journal of Contraceptive Reproductive Health Care, 15 (5), pp. 4-6.

Marie, D. (1998). **Natural Family planning: Nature's Way - God's Way.** Priest to Priest. U.S.A: De Rance, Inc. pg. 7

Medical Dictionary (2014). **Contraception/definition of contraception by Medical Dictionary.** Available at: www.medical-dictionary.thefreedictionary.com. Accessed on 26.04.2017 at 23:25 hours.

Mwamba, E. (2017). **Demography/ Zambian High Commission.** Available at: <http://www.zambiapretoria.net/demography/>. Accessed on 15.04.17 at 17:20hours.

Nakiboneka, C., Maniple, E. (2008). **Factors Related to the Uptake of Natural Family Planning by Clients of Catholic Health Units in Masaka Diocese, Uganda.**

Notare, T. (2004). **“Sex: What Do Women (and Men) Really Want?”** Available at: www.usccb.org/prolife/programs/rlp/04notare.htm. Accessed on 30.08.2017 at 10:04 hours.

Nuwagaba J., (2001). **Contraception: A Pastoral challenge in the Catholic Church.** Uganda. Pg.15-

Nyarwa, L., A. (1993). **The moral and pastoral perspective on the contraceptive issue in Fort Portal Diocese.** Kampala. Pg. 10

Olds B. Sally, London L. Marcia, Ladewig W. Patricia, Davidson R. Michele (2016). **Maternal- New-born Nursing and Women’s Health Care, 7th Edition.** Pearson Prentice Hall, New Jersey.

Polit, D., F., and Beck, C., T. (2008). **Generating and Assessing Evidence for Nursing Practice,** 8th edition, Lippincott, Philadelphia: Lippincott Williams & Wilkins.

Pope Benedict XVI (2016). Encyclical *Deus Caritas Est (God Is Love)*. Washington, DC: United States

Central Statistics Office (2013). **Zambia Demographic and Health Survey 2013-2014.**

Rodriguez, D., and Fehring, R., J. (2012). **Family planning, natural family planning, and abortion use among U.S. Hispanic women.** *The Linacre Quarterly* 79 (2): 192-07.

Roman Catholic Church,(2017). **Roman Catholic Church definition.** Available at: www.dictionary.com/browse/roman-catholic-church. Accessed on 12.05.2017 at 05:11 hours.

Schu, W., J. (2010). **Contraception and Abortion: The Underlying Link.** Available at: www.usccb.org/prolife/programs/rlp/Schu05finaleng.pdf. Accessed on: 28.03.2017.

Siachitoba I. (2017). **Population explosion puts Lusaka at risk – daily nation:** Online. Available at: <https://www.dailynation.news>. Accessed on 15.04.17 at 13:15 hours.

Steinbock, J., T. (2002). **Life-Giving Love of Husband and Wife in Light of the Teaching of the Church on Marriage and the Family.** Available at: www.dioceseoffresno.org/view_story. Accessed on 18.19.2017.

The Roman Catholic Church. **Arch Diocese of Lusaka, Pastoral Plan 2012-2016.**

Tolosi, A. 1993. **Factors Leading to Underutilization of Natural Family Planning at Chilenje Clinic.** Lusaka.

Wayne, F. (2013). **Natural Family Planning | The Catholic Diocese of Fort Wayne-South.** Available at: <http://www.diocesefwsb.org/Natural-Family-Planning>. Accessed on 26.04.2017 at 22:45 hours.

Webster, M. (2015). **Concise dictionary.** Available at:www.Merriam-Webster.com/dictionary/performance. Accessed on 15.01 2018 at 02:15 hours.

Wojciech Lapczynski (2010). **Catholic Church Archdiocese of Lusaka (Zambia).** Available at: <http://worldcat.org>iccn-no94009037>. Accessed on 13.07.2020 at 22:15 hours.

World Health Organisation. (2016). **WHO Fact Sheet/Family Planning/Contraception.** Available at [www.who.int>mediacentre>factsheets](http://www.who.int/mediacentre/factsheets). Accessed on 11.01.2018 at 12:39 hours.

World Health Organisation (2018). **family planning methods.** Available at: [http://www.who.int/news-room/factsheet/detail/ family](http://www.who.int/news-room/factsheet/detail/family). Accessed on 15.07.2018 at 23:50 hours

Wolkoff, L. (2017). **Family Planning 2020.** Available at: lwolkoff@familyplanning2020.org. Accessed on 23.09.2017 at 16:38 hours.

APPENDIX I: PARTICIPANT INFORMATION SHEET

UTILISATION OF NATURAL FAMILY PLANNING AMONG CATHOLIC COUPLES IN LUSAKA.

You are requested to participate in a research study whose title is mentioned above. The study is being conducted by Kalobwe Secunda Mwape, Master of Science in Nursing Student at the University of Zambia. The study to assess the level of **Utilisation of natural family planning among Catholic Couples in Lusaka** is important because the findings will help the Catholic Church and other policy makers to improve the provision of family planning services.

Before you decide whether or not to participate in this study, the purpose of the study, any risks or benefits and what is expected of you will be explained. You are free to ask questions about anything you do not understand about this study. Your participation in this study is entirely voluntary but if you choose not to participate, that will not affect your freedom to practice your Catholic faith. If you decide to participate, you are free to withdraw at any time without any explanation and if you agree to participate, you will be asked to sign the consent in the presence of a witness. Agreement to participate will not result in any immediate benefits.

Purpose of the study

The study is designed to obtain information on how much natural family planning method is utilized by the Catholic couples. This is to help the Catholic church and other policy makers to set up measures of promoting its usage thereby improving the utilisation of family planning services.

Procedure

The study will involve signing of the consent form and completing the questionnaire. Once it is completed, the questionnaire should be returned to the researcher.

Risks and discomforts

There is no risk involved in this research though part of your time will be spent answering some questions.

Benefits

There will be no direct benefit to you by participating in this study, but the information which will be obtained will help you understand the teaching of the Church better. It will also help the policy makers and the Catholic Church to improve the in the provision of family planning services.

Cost, reimbursement and compensation

Your participation in this study is voluntary. You will receive no money for your participation. However, if you feel like withdrawing at any time, you are free to do so and this will not affect your freedom to practice your Catholic faith.

Confidentiality/anonymity

The data we collect do not contain any personal information about you. The discussion and information collected in this study will be kept strictly confidential. No one will link the data you provided to the identifying information you supplied (e.g., address, email).

For further information

We will be glad to answer your questions about this study at any time. You may contact us by phone or email

Principal Investigator cell: 0978831987 email:
mwapemiyanda@yahoo.com

Supervisor cell: 0966652879 email:
catherinengoma@yahoo.com

Co supervisor cell: 0977530674 email: **ruth.wahila.unza.com**

APPENDIX II: PARTICIPANT CONSET FORM

Interview guide

The purpose of this study has been explained to us and we understand the purpose, the benefits, risks and discomforts and confidentiality of the study. We further understand that, taking part in the study is purely voluntary. If we accept to take part in this, we can withdraw at any time without having to give an explanation.

We agree to take part in this study.

Signed _____ Date: _____

(husband)

Participants' signature or thumb print

Signed: _____ Date: _____

(wife)

Participants' signature or thumb print

Signed: _____ Date: _____

Witness

APPENDIX III: STRUCTURED INTERVIEW SCHEDULE - ENGLISH

DATA COLLECTION TOOL

Serial number:

UTILIZATION OF NATURAL FAMILY PLANNING AMONG CATHOLIC COUPLES IN LUSAKA

Parish: _____

Interview Date:

Instructions to the Interviewer

1. Introduce yourself to the participant
2. Explain the purpose of the interview.
3. Assure respondent of anonymity and confidentiality.
4. Ensure the participant signs consent form.
5. Circle the answer corresponding to the respondent.
6. For the open-ended questions, please write the responses clearly and legibly in the spaces provided.

SECTION A --Socio-Demographic Characteristics

1. For how long have you been married?
 - A. 1-4 years
 - B. 5-9 years
 - C. 10-14 years
 - D. More than 15 years

2. What type of a marriage did you have?
 - A. White wedding
 - B. Marriage blessing

3. How many children do you have?
 - A. None
 - B. 1-2
 - C. 3-4
 - D. 5 and more

4. How old is your last child?
 - A. 0-2 years
 - B. 3-4 years
 - C. 5-10 years
 - D. More than 10 years

5. How many children would you like to have?
 - A. None
 - B. 1-2
 - C. 3-4
 - D. More than 4

SECTION B--Awareness of natural family planning

6. Have you ever heard of natural family planning?

- A. Yes
- B. No

7. If yes, where did you hear it from?

- A. The Priest
- B. Marriage counsellor
- C. Health worker
- D. Media
- E. Others (specify)-----

8. In your own words, what is natural family planning?

9. Do you know any method of natural family planning?

- A. Yes
- B. No

10. If yes, to question 9 above, name the methods of natural family planning you know.

- A. -----
- B. -----
- C. -----
- D. -----

11. Does the Roman Catholic Church allow the use of other methods of family planning such as pill, injectable etc.?

- A. Yes
- B. No
- C. Not sure

SECTION C-- Utilisation of natural family planning

12. Are you currently using natural family planning?

- A. Yes
- B. No

13. Can you tell me why you are using or not using natural family planning method?

14. Have you ever used natural family planning before?

- A. Yes
- B. No

15. If yes to the above question, was the natural family planning method easy to use?

- A. Very easy
- B. A bit easy
- C. Complicated

16. Have you used any other method of family planning?

- A. Yes
- B. No

17. If yes to the above question, which method have you used before?

- A. Oral contraceptive (pill)
- B. Injectable
- C. Condoms
- D. Loop
- E. Other (specify)-----

18. If answer is No to question, what is the reason for not using any family planning method?

- A. Want to have a child/ have more children
- B. Don't know about it
- C. Religious beliefs
- D. Traditional beliefs

E. Other (specify)-----

SECTION D- Service related factors

19. Are there natural family planning providers at your Parish?
- A. Yes
 - B. No
 - C. Not sure
20. How accessible are the natural family planning providers within or outside your Parish?
- A. Readily accessible
 - B. Available at times
 - C. Not accessible
 - D. Not sure
21. How do you rate the effectiveness of natural family planning?
- A. Very effective
 - B. Effective at times
 - C. Not effective
22. Did you have any lesson on family planning when you were doing your marriage lessons?
- A. Yes
 - B. No
23. If yes to the above question, was the information adequate for you to effectively use natural family planning?
- A. Very adequate
 - B. A bit adequate
 - C. Not adequate
24. Generally, does the Church provide adequate information on natural family planning?
- A. Yes
 - B. No

THANK YOU FOR SPARING YOUR TIME TO ANSWER THIS QUESTIONNAIRE

**APPENDIX IV: TRANSLATED PARTICIPANT INFORMATION SHEET
NKHANI YOYENERA KUCHITA ZINTHU**

**NTCHITO YOPHUNZITSIRA MALAMULO ACHINYAMATA PAKATI PA
MAKOLO A KATOLIKA MU LUSAKA.**

Mwapemphedwa kutenga nawo mbali pa kafukufuku yemwe mutu wake watchulidwa pamwambapa. Phunziroli likuchitika ndi Kalobwe Secunda Mwape, Master of Science mu Nursing Student ku University of Zambia. Phunziro lofufuza momwe **ntchito ya kulera kwachilengedwe imakhalire pakati pa okwatirana achikatolika ku Lusaka** ndi ofunika chifukwa zotsatirazi zidzathandiza mpingo wa Katolika ndi anthu ena omwe amapanga malamulo kuti apititse patsogolo ntchito za kulera.

Musanayambe kudziwa ngati mukuchita nawo phunziroli, cholinga cha phunziroli, ngozi iliyonse kapena zopindulitsa ndi zomwe mukuyembekezedwa zidzafotokozedwa. Muli ndi ufulu kufunsa mafunso pa chilichonse chimene simukumvetsa pa phunziro ili. Kutenga nawo mbali mu phunziroli ndikudzipereka mwaufulu koma ngati mutasankha kuti musayambe kutenga nawo gawo, izi sizikukhudzani ufulu wanu kuti muzichita chikhulupiriro chanu cha Katolika. Ngati mwasankha kutenga nawo mbali, muli omasuka kuchoka nthawi iliyonse popanda kufotokozera ndipo ngati mukuvomera kutenga mbali, mudzafunsidwa kuti musayine chilolezo pamaso pa mboni. Chigwirizano chochita nawo sichidzapindulitsa phindu lililonse.

Cholinga cha phunzirolo

Phunziroli lakonzedwa kuti lidziwe zambiri za njira ya Kugonana kwa Umoyo pogwiritsidwa ntchito ndi mabanja achikatolika. Izi ndi kuthandiza tchalitchi cha Katolika ndi anthu ena omwe amapanga ndondomeko kuti athe kukhazikitsa njira zothandizira ntchito yake kuti pakhale njira zothandizira kulera.

Ndondomeko

Phunziroli lidzaphatikizapo kulembapo fomu yoyenera ndikukwaniritsa mafunsowa. Mukadzatha, funsoli liyenera kubwezedwa kwa wofufuza.

Mavuto ndi kusokoneza

Palibenso chiopsezo mu kafukufukuyu ngakhale gawo lanu lidzayankhidwa kuyankha mafunso ena.

Ubwino

Sipadzakhala phindu lenileni kwa inu mwa kutenga nawo mbali mu phunziro lino, koma chidziwitso chomwe chidzapezeka chidzakuthandizani kumvetsa bwino kuphunzitsa kwa mpingo. Zidzathandizanso olemba mapulani ndi Tchalitchi cha Katolika kuti apititse patsogolo ntchito za kulera.

Mtengo, kubwezera ngongole ndi malipiro

Kuchita kwanu mu phunziroli ndi mwaufulu. Simudzalandira ndalama kuti mutenge mbali. Komabe, ngati mumakhala ngati mukuchoka nthawi iliyonse, ndinu omasuka kuti muchite zimenezo ndipo izi sizikukhudzani ufulu wanu kuchita chikhulupiliro chanu cha Katolika.

Chinsinsi / kusadziwika

Deta yomwe timasonkhanitsa ilibe mfundo iliyonse yokhudza inu. Kukambirana ndi mfundo zomwe zimasonkhanitsidwa mu phunziro lino zidasungidwa mwatsatanetsatane.

Palibe amene angagwirizanitse deta yomwe munapereka kwadzidzidzi zomwe munapereka (mwachitsanzo, adilesi, imelo).

Kuti mudziwe zambiri

Tidzakhala okondwa kuyankha mafunso anu pa phunziro ili nthawi iliyonse. Mukhoza kulankhulana ndi ife pafoni kapena imelo

Selo Lofufuzira Loyamba: Imeli ya: 0978831987 imelo:
mwapemiyanda@yahoo.com

Woyang'anira woyang'anira: 0966652879 imelo:
catherinengoma@yahoo.com

Khungu la oyang'anira : 0977530674 imelo: ruth.wahila.unza.com

APPENDIX V: TRANSLATED PARTICIPANT CONSENT FORM
FOMU YOPHUNZITSITSA

Funso la mafunso

Cholinga cha phunziro lino chafotokozedwa kwa ife ndipo timamvetsa zolinga, ubwino, zoopsa ndi zosokoneza komanso chinsinsi cha phunziroli. Timapitiriza kumvetsetsa kuti, kutenga nawo gawo mu phunziroli kumangopereka mwaufulu. Ngati timavomereza kuti tichite nawo mbaliyi, tikhoza kutaya nthawi iliyonse popanda kuyankha.

Timavomereza kutenga mbali mu phunziro ili.

Chizindikiro _____ Date: _____
(mwamuna)

Zosindikiza za ochita nawo kapena thumb

Lowina: _____ Date: _____
(mkazi)

Zosindikiza za ochita nawo kapena thumb

Lowina: _____ Date: _____
Mboni

APPENDIX VI: STRUCTURED INTERVIEW SCHEDULE – CHEWA

KUYAMBIRANA KWAMBIRI SCHEDULE

Nambala:

NTCHITO YOPHUNZITSIRA MALAMULO ACHINYAMATA PAKATI PA MAKOLO A KATOLIKA MU LUSAKA

Parishi: _____ Tsiku Lokambirana: _____

Malangizo kwa Wofunsayo

1. Dzidziwitse kwa wophunzirayo
2. Fotokozani cholinga cha zokambirana.
3. Onetsani munthu amene akudziwika kuti ndi wosadziwika komanso chinsinsi.
4. Onetsani kuti mawonekedwe ovomerezeka akukhala nawo.
5. Tsezunguzani yankho lofanana ndi wofunsidwa.
6. Pafunso lomwe liri lotseguka, chonde lembani mayankhowo mosapita m'mbali komanso momveka bwino m'mipata yoperekedwa.

CHIGAWO A - Zolembe Zomwe Anthu Ambiri Amachita

1. Kodi mwakwatirana kwa nthawi yaitali bwanji?
 - A. zaka 1-4
 - B. zaka 5-9
 - C. zaka 10-14
 - D. Zaka zoposa 15

2. Kodi muli ndi banja lotani?
 - A. White ukwati
 - B. Mkwatibwi waukwati

3. Ndi ana angati omwe muli nawo?
 - A. Palibe
 - B. 1-2
 - C. 3-4
 - D. 5 ndi zina

4. Kodi mwana wanu wotsiriza ali ndi zaka zingati?
 - A. 0-2 zaka
 - B. 3-4 zaka
 - C. 5-10 zaka
 - D. Zaka zoposa 10

5. Kodi ndi angati ana omwe mukufuna kukhala nawo?
 - A. Palibe
 - B. 1-2
 - C. 3-4
 - D. Oposa 4

CHIGAWO B - Kudziwa Zokonza Zachilengedwe

6. Kodi munamvapo za Kulera kwachilengedwe?

- A. Inde
- B. Ayi

7. Ngati inde, kodi mwamva kuti?

- A. Wansembe
- B. Mlangizi waukwati
- C. Wathanzi
- D. Media
- E. Ena (tsankhu) -----

8. Mmawu anu omwe, kodi Kulera kwachilengedwe ndi chiyani?

9. Kodi mumadziwa njira iliyonse ya kulera?

- A. Inde
- B. Ayi

10. Ngati inde, kufunsa 9 pamwambapa, tchulani njira za Kulera kwachilengedwe mukudziwa.

- A. -----
- B. -----
- C. -----
- D. -----

11. Kodi mpingo wa Roma Katolika umalola kugwiritsa ntchito njira zina za kulera monga pilisi, jekeseni ndi zina zotero?

- A. Inde
- B. Ayi
- C. Osatsimikiza

CHIGAWO C - Kugwiritsira ntchito njira zakulera

12. Kodi panopa mukugwiritsa ntchito njira za kulera?

A. Inde

B. Ayi

13. Kodi mungandiuze chifukwa chake mukugwiritsa ntchito kapena osagwiritsa ntchito njira yowonongeka?

14. Kodi munayamba mwagwiritsira ntchito njira zakulera?

A. Inde

B. Ayi

15. Ngati inde ku funso ili pamwambapa, kodi njira yochezera zachuma inali yosavuta kugwiritsa ntchito?

A. zosavuta kwambiri

B. zosavuta

C. zovuta

16. Kodi mwagwiritsira ntchito njira ina iliyonse ya kulera?

A. Inde

B. Ayi

17. Ngati inde ku funso ili pamwamba, ndi njira iti yomwe wagwiritsira ntchito kale?

A. Mchitidwe wamakono wovomerezeka (mapiritsi)

B. Chojambulidwa

C. Makondomu

D. Chingwe

E. Zina (tchulani) -----

18. Ngati yankho liribe funso, kodi ndi chifukwa chani chosagwiritsira ntchito njira iliyonse ya kulera?

- A. Mukufuna kukhala ndi mwana / kukhala ndi ana ambiri
- B. Sindikudziwa za izo
- C. Zipembedzo
- D. Zikhulupiriro zachikhalidwe
- E. Zina (tchulani) -----

GAWO D - Zinthu zokhudzana ndi ntchito

19. Kodi pali omwe amapereka njira zakulera ku Parish yanu?

- A. Inde
- B. Ayi
- C. Osatsimikiza

20. Kodi operekerana njira zowonongeka kwazomwe angapezeke bwanji kapena kunjira kwa Parish?

- A. Kupezeka mosavuta
- B. Kumapezeka nthawi zina
- C. Osati kupezeka
- D. Osatsimikiza

21. Kodi mumaganizira bwanji kuti chilengedwe chimathandiza bwanji?

- A. Zothandiza kwambiri
- B. Zochita nthawi zina
- C. Osagwira ntchito

22. Kodi mudaphunzirapo kanthu pa Kukonzekera kwa Pabanja pamene mukuchita maphunziro anu apabanja?

- A. Inde
- B. Ayi

23. Ngati inde ku funso ili pamwamba, kodi ndizokwanira kuti mugwiritse ntchito NFP moyenera?

- A. Zokwanira
- B. pang'ono pang'ono
- C. Osatikwanira

24. Kawirikawiri, kodi Mpingo umapereka chidziwitso chokwanira pa zachuma?

- A. Inde
- B. Ayi

**KUKHUDZANI KUDZIWA NTHAWI YANU YANKHO
KUYANKHA MAFUNSO**

APPENDIX VII: GANTT CHART

Activity	Responsible Person	2018 - 2019											
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	
Proposal writing and presentation to Department	Researcher												
Submit proposal to Assistant Dean (PG) office	Researcher												
Present at Graduate Proposal Presentation Forum	Researcher												
Submit proposal to UNZABREC	Researcher												
UNZABREC review and approval													
Pre – testing of the tool	Researcher												
Enrol participants and collect data	Researcher												
Analyze data	Researcher												
Write dissertation	Researcher												
Submit final dissertation	Researcher												

APPENDIX VIII: STUDY BUDGET

Item	Quantity	Unit Cost (ZMK)	Cost estimate (ZMK)
UNZABREC submission fee			500
Stationery and printing			
1. Flash Disc	2	150	300
2. Bond paper	10	50	500
3. Pens	20	3	60
4. Pencils	50	1	50
5. Rubbers	10	5	50
6. Note book	5	20	100
7. Correction fluid	5	10	50
8. Bag for Questionnaires	1	1, 000	1000
9. Stapler	1	50	50
10. Staples	2boxes	25	50
Subtotal			2, 710
Personnel			
Lunch allowance for the researcher during field work (preparation and data collection)	10 days	85	885
Lunch allowance for the research assistants during field work (preparation and data collection)	10 days	75	2, 250
Transport			3, 000
Secretarial services			
Typing Proposal	1	500	500
Binding proposal	5	100	500
Photocopying Self-Administered Questionnaire and consent forms	500	2	1, 000

Binding Research Report	5	500	2, 500
SUBTOTAL			10, 635
TOTAL			13, 345
CONTIGENCY FUND (10%)			1, 334.5
GRAND TOTAL			14, 679.5

JUSTIFICATION FOR THE BUDGET

STATIONERY

The 10 reams of bond paper will be used for the research proposal development and the final report. Paper will also be required to make extra copies of the proposal for submission to the research Ethics committee and the board of graduate studies. Questionnaire will be needed to be photocopied.

The bag for questionnaire is where the questionnaire will be kept for safety.

The flash disc will be used for copying and storing research data. Other accessories such as pens, correction fluid, pencils, rubber, stapler, staples and note books are required for the routine collection of research data.


SECRETARIAL SERVICES

Funds for photocopying services and binding of the proposal and report will be needed. The charge for photocopying implies that one copy will be printed and the rest photocopied to cut down on the cost. The researcher will need five copies of the proposal to submit to Post Graduate Research Committee for dissertation and dissemination.

CONTIGENCY

Contingency fund which is 10% of the budget is required for any extra costs due to inflation and for any eventualities.

APPENDIX IX: ETHICAL CLEARANCE- UNZABREC


THE UNIVERSITY OF ZAMBIA
BIOMEDICAL RESEARCH ETHICS COMMITTEE

Telephone: 260-1-256067
Telegrams: UNZA, LUSAKA
Telex: UNZALU ZA 44370
Fax: + 260-1-250753
E-mail: unzarec@unza.zm
Assurance No. FWA00000338
IRB00001131 of IORG0000774

Ridgeway Campus
P.O. Box 50110
Lusaka, Zambia

8th November, 2018. REF. No. 007-09-18.

Ms. Secunda M. Kalobwe,
University of Zambia,
School of Nursing Sciences,
P.O. Box 50110,
Lusaka.

Dear Ms. Kalobwe,

RE: "UTILISATION OF NATURAL FAMILY PLANNING AMONG CATHOLIC COUPLES IN LUSAKA"
(REF. NO. 007-09-18)

The above-mentioned research proposal was presented to the Biomedical Research Ethics Committee (UNZABREC) on 22nd October, 2018. The proposal is approved. The approval is based on the following documents that were submitted for review:


a) Study proposal
b) Questionnaires
c) Participant Consent Form

APPROVAL NUMBER : REF. 007-09-18

This number should be used on all correspondence, consent forms and documents as appropriate.

- **APPROVAL DATE** : 8th November, 2018
- **TYPE OF APPROVAL** : Standard
- **EXPIRATION DATE OF APPROVAL** : 7th November, 2019
After this date, this project may only continue upon renewal. For purposes of renewal, a progress report on a standard form obtainable from the UNZABREC Offices should be submitted one month before the expiration date for continuing review.
- **SERIOUS ADVERSE EVENT REPORTING**: All SAEs and any other serious challenges/problems having to do with participant welfare, participant safety and study integrity must be reported to UNZABREC within 3 working days using standard forms obtainable from UNZABREC.
- **MODIFICATIONS**: Prior UNZABREC approval using standard forms obtainable from the UNZABREC Offices is required before implementing any changes in the Protocol (including changes in the consent documents).
- **TERMINATION OF STUDY**: On termination of a study, a report has to be submitted to the UNZABREC using standard forms obtainable from the UNZABREC Offices.
- **NHRA**: Where appropriate, apply in writing to the National Health Research Authority for permission before you embark on the study.
- **QUESTIONS**: Please contact the UNZABREC on Telephone No.256067 or by e-mail on unzarec@unza.zm.
- **OTHER**: Please be reminded to send in copies of your research findings/results for our records. You're also required to submit electronic copies of your publications in peer-reviewed journals that may emanate from this study.

Yours sincerely,



Dr. S.H Nzala
VICE-CHAIRPERSON

APPENDIX X: ETHICAL CLEARANCE -NHRA



THE NATIONAL HEALTH RESEARCH AUTHORITY
Paediatric Centre of Excellence
University Teaching Hospital
P.O. Box 30075
LUSAKA
T: +260 211 250309/+260 95 563276 | E: znhrasec@gmail.com | www.nhra.org.zm

20th November, 2018

Kalobwe Secunda Mwape
University of Zambia
School of Nursing Sciences
P.O. Box 50110
LUSAKA

Re: Request for Authority to Conduct Research

The National Health Research Authority is in receipt of your request for authority to conduct research titled "Utilization of Natural Family Planning among Catholic couple in Lusaka." I wish to inform you that following submission of your request to the Authority, our review of the same and in view of the ethical clearance, this study has been approved on condition that:

1. The relevant Provincial and District Medical Officers where the study is being conducted are fully appraised;
2. Progress updates are provided to NHRA quarterly from the date of commencement of the study;
3. The final study report is cleared by the NHRA before any publication or dissemination within or outside the country;
4. After clearance for publication or dissemination by the NHRA, the final study report is shared with all relevant Provincial and District Directors of Health where the study was being conducted, University leadership, and all key respondents.

Yours sincerely,

Dr. Godfrey Biemba
Director/CEO
National Health Research Authority

All correspondences should be addressed to the Director/CEO National Health Research Authority