

# KIBOGORA POLYTECHNIC



### FACULTY OF HEALTH SCIENCE

#### **DEPARTMENT OF GENERAL NURSING A0**

# PREVALENCE OF MODERN CONTRACEPTIVE METHODS UTILISATION AND ASSOCIATED FACTORS AMONG REPRODUCTIVE WOMEN AGED 15-49 YEARS AT KIBOGORA HEALTH CENTER

Case study: Kibogora health center

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## **DECLARATION**

We do here by declare that this is our own original work and not a duplication of any similar academic work. It has therefore not been submitted to any other institution of higher learning. All materials cited in this paper which are not our own have been duly acknowledged.

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#### **ABSTRACT**

Modern contraceptive methods are drugs or a device a woman uses to prevent herself from becoming pregnant in which at least one modern contraceptive method is used by a married or in union couples in their sexual life. Contraceptive methods use has many health benefits in prevention of maternal morbidity and mortality, reduction of unsafe abortion from unintended pregnancies, reducing newborn and infant mortality and ameliorating the livelihood of ladies and their offspring in general. The aim of this study was to assess the prevalence of modern contraceptive methods utilization and associated factors among reproductive women aged 15-49 years at Kibogora health center. The specific objectives of this study were (1) To identify the factors associated to the use of modern contraceptive methods and (2) To determine the prevalence of modern contraceptive methods utilization among them.

This study was conducted in family planning service of kibogora health center. A quantitative approach and descriptive cross-sectional design were adopted to conduct this study. A nonprobability convenience sampling strategy was used to select women met the study inclusion criteria to get sample. A sample size of 80 women was calculated and considered in this study. Data collection used a structured questionnaire given to eligible women who accepted to participate voluntarily in this study. The data were analyzed using statistical package for social sciences (SPSS) version 26. The result of the study shows us that side effect of modern contraceptive use and lack of knowledge about modern contraceptive was mostly factors preventing modern contraceptive utilization with 80%. Assess to family planning information was associated to modern contraceptive methods use where 82.6% heard information about modern contraceptive during health center visit. About prevalence of modern contraceptive utilization implants is highly used than other methods with 35%. The findings from this study are showing that mostly factors preventing modern contraceptive utilization are lack of knowledge To Kibogora health center is better to promote the health education (counseling) about modern contraceptive methods which are available and the importance of modern contraceptive on family in general for women and men about modern contraceptive methods and side effect associated to use of modern contraceptive.

## **DEDICATION**

First of all, we thank God for being with us on this journey of studying. Our dedication of this work goes to our lovely parents, brothers, sisters, lectures and our friends who kept giving us all kinds of support that lead us to the accomplishment of this research project. May God bless them for their support.

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#### **ACRONYMS**

**FP:** Family Planning

**HC:** Health Centre

MC: Modern Contraceptive

MCM: Modern contraceptive method

**MOH:** Ministry of Health

NISR: National Institute of Statistics of Rwanda

**RDHS**: Rwanda Demographic and Health Survey

**SSA:** sub- Saharan Africa

WHO: World Health Organization.

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#### CHAPTER ONE: GENERAL INTRODUCTION

#### 1.0 Introduction

Contraceptive methods use has many health benefits in prevention of maternal morbidity and mortality, reduction of unsafe abortion from unintended pregnancies, reducing newborn and infant mortality and ameliorating the livelihood of ladies and their offspring in general (Hatcher et al., 1998). Access to high-quality, affordable sexual and reproductive health services and information, including a full range of contraceptive methods, is fundamental to realizing the rights and well-being of women and girls, men and boys. Universal access to effective contraception ensures that all adults and adolescents can avoid the adverse health and socioeconomic consequences of unintended pregnancy and have a satisfying sexual life(Global, 2018).

This chapter concern about the background of the study, problem statement, purpose of the study, objective of the study, research questions, significance of the study, limitation of the study, and scope of the study about prevalence of utilization of modern contraceptive methods and associated factors among reproductive women aged 15-49 years old.

#### 1.1 Background of the study

Modern contraceptive methods are drugs or a device a woman uses to prevent herself from becoming pregnant in which at least one modern contraceptive method is used by a married or in union couples in their sexual life (Global, 2018). Modern contraceptive use remains an important public health intervention and a cost-effective strategy to reduce maternal mortality, avert unintended pregnancies and to control population explosion especially in developing countries (Global, 2018). Worldwide fertility rate was decline from 4.6 birth per women in 1971 to 2.4 birth per women in 2022 (Syarifudin, 2020).

According to a study done about need for family planning and the use of modern contraceptive methods in 2019, it demonstrated that among 1.9 billion women of reproductive age 15 to 49 living in the world in 2019, 1.1 billion have a need for family planning in which 842 million use modern contraceptive methods while 80 million use traditional methods or have an unmet need

for family planning(Booklet, 2020). The same study showed that 190 million women want to avoid pregnancy and do not use any contraceptive methods. This study also concluded that the rate of all modern contraceptive methods use is equal to 44 %, 4% use traditional methods, 10% are unmet need and 42% are no need for contraceptive(Booklet, 2020). MC use decrease unplanned births from 30 million to 7 million per year and induced abortions from 48 million to 12 million per year(Syarifudin, 2020).

In Europe fertility rate was 1.53 live births per woman in 2019 and the rate of utilization of modern contraceptive methods was above 70% (Belsie, 2019). The factors that contribute to this rate were found to be socioeconomic incentives to delay childbearing, a decline in the desired number of children, and institutional factors such as labor market rigidities, lack of child care, and changing gender roles (Belsie, 2019).

In United States fertility rate in 2020 was 1.779 births per woman, 0.06% increase from 2019.the current fertility rate in 2021 was 1.781 births per women, 0.11 was increased from 2020, the utilization rate of modern contraceptive methods in 2017 was 64.9% in 2018 was 65% (Hamilton et al., 2021). The factors associated to this rate are women's person characteristics and child bearing goals, sexual relationship characteristics and partner influence, community, family, peer relationship, social and economic characteristics(Hamilton et al., 2021). In Southeast Asia, fertility ranges from 1.5 children per woman in Singapore to 4.8 in Laos and Cambodia. In South and Central Asia, fertility ranges from 2.0 in Kazakhstan to 6.8 in Afghanistan. The total fertility rate in India, the largest country of the sub region, is 3.0. Contraceptive prevalence rates range from 1-85% (the highest and lowest ever reported). In the Asian and Pacific region as a whole, the prevalence rate was around 40%, which was about the same level as in the Latin American region(Hamilton et al., 2021).

In Africa fertility rate in 2018 was 4.438 births per woman, a 1.29% decline from 2017, in 2019 was 4.381 births per woman, a 1.28% decline from 2018, in 2020 was 4.325 births per woman, and a 1.28% decline from 2019, the current fertility rate for Africa in 2021 is 4.268 births per woman, a 1.32% decline from 2020. 30% of all women use modern contraceptive methods.

Factors associated to the use of modern contraceptive are Limited access to contraception, limited available choices for type of contraception, cultural and religious opposition, poor quality of available services, and gender-based barriers, all contribute to the high "unmet need" for contraception in Africa (Ahinkorah et al., 2021)

In sub-Saharan Africa, the region with the highest fertility levels, the total fertility rate dropped from 6.3 in 1990 to 4.6 in 2019 births per woman, the use of modern contraceptive in 2019 was 34.1% (World Population Data Sheet, 2020). Associated factors of utilization of modern contraceptive methods in sub – Sahara, the study conducted in 2021, suggested that culture and religious myths and misconceptions undermine modern contraception. Other studies have highlighted that couple related factors (such as partner discussion, approval, and spousal decision making), socio demographic characteristics (age, education status, religion), parity, exposure to mass media, knowledge on modern contraceptive methods and fear of side effects (Ahinkorah et al., 2021)

In Rwanda fertility rate in 2014-2015 was 4.2 children per women and 4.1 children per women in 2019-2020. The contraceptive prevalence rate is 64% among currently married women age 15-49. Most currently married women using contraception, use a modern method (58%), while 6% use a traditional method. The other hand ,50% of sexually active unmarried women use a contraceptive method, with 48% using a modern method and 2% using a traditional method. (Survey, 2019)Wealth quintile, level of education, working status, number of living children, social economic and exposure to the media was found to increase contraceptive use, the most common reason for discontinuation was side effects/health concerns (30%). Other prominent reasons cited for discontinuation included desire to become pregnant (28%) and desire for a more effective method (14%) (Survey, 2019).

By province, fertility rate is highest in West 3.7 children/women and lowest in City of Kigali 3.3 children/women. The mean ideal number of children among women with no education is 4.1, as compared with 3.2 and 3.4 among women with a secondary education and women with more than a secondary education, respectively. Modern contraceptive use among currently married women ranges from 54% in West to 65% in North in 2021 (Survey, 2019).

#### 1.2 Problem statement

Unwanted pregnancies are serious challenge to the wellbeing of community worldwide. The study conducted in 2015 show us that every year 87 million women worldwide become pregnant unintentionally because of the underuse of modern contraceptive methods (Saverio Bellizzi, Howard L. Sobel, 2015).

Women die each year of pregnancy related causes is 600,000 and 75,000 die following unsafe abortions in which 200,000 of these maternal deaths are attributable to the failure or lack of contraceptive services(Shitu et al., 2019). On the same study, data from the well-controlled Intergenerational Panel Study of Mothers and Children in 2018, indicate that unwanted births can lead to nonpsychotic major depression (postpartum depression), feelings of powerlessness, increased time pressures, and a reduction in overall physical health(Shitu et al., 2019).

Globally in 2018, contraceptive methods utilization helps to prevent a predictable 2.7 million infant deaths and the loss of 60 million healthy lives in a year. Even though these much benefits of contraceptive methods utilization are known, at present around 222 million women have insufficient access to contraceptives (Limenih, 2018).

Data from the United Nations department of economic and social affairs and population division show us that more than 20% of unmet need for family planning in 15 countries in SSA. The study also reveal that 51 million women of reproductive age had unmet need for modern contraceptive methods (Ahinkorah et al., 2021).

In Rwanda research conducted in Nyagatare and Gatsibo district in 2018 showed that unwanted pregnancy in adolescent was 1,465 and 1,452 respectively and its associated factors were social economic, poor knowledge about reproductive health (paul, 2021). Another study conducted in 2016 in 52 sectors of 10 district revealed that 818 adolescents get unwanted pregnancy, 10.3% are located in Nyamasheke district (Umurerwa, Emma-Marie, 2017).

In this area of the study, there is no clear and current information about prevalence of modern contraceptive methods utilization and associated factors among reproductive women. Therefore, this study was conducted to assess the Prevalence of Modern Contraceptive Methods Utilization and Associated Factors among Reproductive Women aged 15-49 years at Kibogora Health Center.

#### 1.3 Purpose of the study

The purpose of this study was to assess the prevalence of modern contraceptive methods utilization and associated factors among reproductive women aged 15-49 years at Kibogora Health Center.

#### 1.4 Research questions

- 1. What is the prevalence of modern contraceptive methods utilization among reproductive women aged 15-49 years at Kibogora Health Center?
- 2. What are the factors associated to the use modern contraceptive methods among reproductive women aged 15-49 years old at Kibogora Health Center?

#### 1.5 Objectives of study

- 1. To determine the prevalence of modern contraceptive methods utilization among reproductive women aged 15-49 years old at Kibogora Health Center.
- 2. To identify the factors associated to the use of modern contraceptive methods among reproductive women aged 15-49 years old at Kibogora Health Center.

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#### 1.6 Significance of the study

This study is importance for:

#### 1.6.1 Government of Rwanda

The government of Rwanda will be able to make strategic planning to help those one who use modern contraceptive methods and improve the current ways of supporting the use of modern contraceptive methods among reproductive women. they may also be a hint for Rwandan policy makers on what should be done to improve modern contraceptive use in Rwanda depending on factors that affect use of modern contraceptive methods and on what is needed in each region.

#### 1.6.2 Kibogora Health Center

The administration of KIBOGORA Health Center will also benefit from this study by knowing the utilization of modern contraceptive methods and associated factors among reproductive women age 15-49 years old, the gaps they have and how they can take measures to improve it, because the growing use of contraceptive methods has resulted in not only improvements in health-related outcomes, reducing maternal and child mortality, and improving the lives of women and children in general.

#### 1.6.3 Kibogora Polytechnic

Whole KP's society and researchers who will be interested in this study will use it for the purpose of acquiring information. This study will facilitate the learners of KP especially those in faculty of health sciences to increase the knowledge of students about modern contraceptive methods this will help to produce works who have high quality about modern contraceptive methods.

#### 1.6.4 Researchers

The researchers will gain more information about the utilization of modern contraceptive methods and associated factors among reproductive women aged 15-49 years old and will be good sources of knowledge in order to explore other information related to this topic.

#### 1.7 Limitations of the study

Financial issues were big problem in this study, loss of information due to fear.

#### 1.8 Scope of the study

#### 1.8.1 Geographical scope

The research assesses the Prevalence of modern contraceptive methods utilization and associated factors among reproductive women aged 15-49 years old has been conducted at kibogora health center in Kibogora cell, Kanjongo sector, Nyamasheke district in the western province of Rwanda.

#### 1.8.2 Time scope

This study has been conducted prospectively where included reproductive women aged 15-49 years attended Kibogora health center in June 2022.

#### 1.8.3 Content scope

The researchers were aimed on evaluation of prevalence of modern contraceptive utilization and associated factors among reproductive women aged 15-49 years old.

**CHAPTER TWO: LITERATURE REVIEW** 

2.0 Introduction

This chapter is representing a review of existing literature on prevalence of modern contraceptive

methods utilization and associated factors in reproductive women aged 15-49 years. It is a

review of different explanations on prevalence of modern contraceptive methods utilization

conducted from different studies conducted in different areas around the world.

2.1 Theoretical literature

2.1.1 Definitions of key concepts

**Utilization:** Is the action of making practical and effective use of something.

Reproductive age women: women who are able to get pregnancy, all women aged 15 to 49

years old (Ward Rinehart, Richard Blackburn, 2008)

Family planning: is when both the husband and wife together discuss and mutually decide how

many children they would like to have and when so that they can give sufficient love, care,

attention and good education to each of their children (Ward Rinehart, Richard Blackburn, 2008).

**Contraception** defined as the use of methods or acts intended to prevent reproduction occurring

as a result of sexual intercourse (Muralidhar, 2021).

Contraceptive rate: is the percentage of women who are currently using, or whose sexual

partner is currently using, at least one method of contraception, regardless of the method used. It

is usually reported for married or in-union women aged 15 to 49 (Hinrichsen, 2020).

Fertility rate: is the number of children born alive to women of that age during the year as a

proportion of the average annual population of women of the same age (Database et al., 2021).

Unmet need for family planning A woman has an unmet need for family planning if she is

married, in a union or sexually active, and is able to conceive, wants no more children or does

not want to have a child in the next two years, and is not using any modern contraception or is

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using a traditional method (Modern Contraceptive Methods: A New Misleading Definition Cristina Lopez- Del Burgo, 2016).

Modern contraception is the deliberate use of artificial methods or other techniques to prevent pregnancy as a consequence of sexual intercourse. The major forms of artificial contraception are: barrier methods, of which the commonest is the condom or sheath; hormonal methods include contraceptive pills and injectable, which contains synthetic sex hormones which prevent ovulation in the female, intrauterine devices, such as the coil, which prevent the fertilized ovum from implanting in the uterus; and permanent methods including male or female sterilization (Modern Contraceptive Methods: A New Misleading Definition Cristina Lopez- Del Burgo, 2016).

#### 2.1.2 Different types of modern contraceptive methods

#### 2.1.2.1 Hormonal contraceptive methods

Hormonal contraceptive methods include oral contraceptives pills, injectable, and implants. They all prevent pregnancy mainly by stopping a woman's ovaries from releasing eggs. Hormonal methods contain either one or two female sex hormones that are similar to the hormones naturally produced by a woman's body(Global, 2018).

#### Oral contraceptive pills

It should be taken one pill every day. It is most effective when no pills are missed, the pill is taken at the same time every day, and each new pack of pills is started without a delay. In 2018 New family planning recommendations from WHO women who are breastfeeding can start progestin only pills or implants at any time postpartum(Global, 2018).

#### **Combined oral contraceptives**

The most commonly used oral contraceptive pills combine two synthetic hormones estrogen and progestin these oral contraceptives are often referred to as combined pills or simply "the Pill." If a woman remembers to take the Pill every day, the method is close to 100% effective in

preventing pregnancy. Breastfeeding women should delay starting the Pill until the baby is at least 6 months old because the estrogen in the Pill might reduce the amount of breast milk (Global, 2018).

#### **Progestin-only pills**

It is the type of oral contraceptive pills contains only one synthetic hormone progestin. These pills are often called progestin-only pills or the "mini-pill." Progestin-only pills are recommended for breastfeeding women because progestin will not reduce the production of breast milk. Also, progestin-only pills are more effective in breastfeeding than in non-breastfeeding women. Work primarily by thickening cervical mucus and preventing the release of eggs(Global, 2018).

#### **Emergency contraceptive pills**

It helps to prevent pregnancy if taken within 5 days after unprotected sex, work by preventing or delaying the release of eggs from the ovaries and they do not work if a woman is already pregnant. (Global, 2018)

#### 2.1.2.2 Injectable contraceptives

It is given by intramuscular injection into a woman's arm deltoid muscle or buttocks once every 1, 2, or 3 months, depending on the type of injectable. It is most effective when women remember to come back for re-injection on time.

#### 2.1.2.3 Contraceptive implants

It is inserted under the skin of a woman's upper arm and provides continuous, highly effective pregnancy protection for 3 to 5 years, depending on the type of implant. When this time is over, new implants can be inserted during the same visit that the old set is removed.

#### 2.1.2.4 Intrauterine contraceptive devices (iuds or iucds)

An IUD is a small, often T-shaped plastic device that is wrapped in copper or contains a progestin hormone. A specially trained health care provider inserts the IUD into the uterus. A plastic string tied to the end of the IUD hangs down through the cervix into the vagina. The most common IUDs contain copper, and they work by preventing sperm from reaching an egg. Depending on the type, IUDs can provide protection for 5 to 12 years(Global, 2018).

#### **Copper-bearing IUD**

The copper-bearing IUD works by creating an environment in the uterus that damages the sperm and keeps them from uniting with an egg. It is effective for up to 12 years. The most common side effects of the copper IUD include heavier and longer monthly bleeding which may be accompanied by increased cramping. For most women these side effects diminish or disappear after the first 3 to 6 months of IUD use(Global, 2018).

#### **Hormonal IUD**

A hormonal IUD very slowly and continuously releases a small amount of a progestin hormone. It works by thickening the cervical mucus, making it hard for sperm to pass from the vagina into the uterus. It also prevents ovulation in some women and keeps the lining of the uterus from growing(Global, 2018).

#### 2.1.2.5 Barrier methods

It is either devices (male and female condoms) that physically block sperm from reaching an egg, or chemicals (spermicides) that kill or damage the sperm in the vagina. The effectiveness of barrier methods greatly depends on people's ability to use them correctly every time they have sex. The most common barrier family planning method is the male condom. Male and female condoms are the only contraceptive methods that provide protection from STIs, including HIV, in addition to pregnancy

#### Male condom

A male condom is a covering usually made of thin latex rubber that unrolls over a man's erect penis. It prevents a man's sperm from entering the woman's vagina. It also can keep the small organisms that cause some STIs/HIV from infecting the partner (Hamed et al.,2018).

#### Female condom

A female condom is a lubricated pouch made of thin, soft plastic that fits loosely inside a woman's vagina. It prevents pregnancy by keeping sperm out of the vagina. In addition to preventing pregnancy, female condoms also block transmission of some STIs/HIV (Global, 2018).

#### **Spermicides**

Spermicides are chemical substances that are inserted deep into the vagina shortly before sex to kill or disable sperm. They can be used alone as well as with diaphragms, cervical caps, and condoms(Global, 2018).

#### 2.1.2.6 Female and male sterilization

It is permanent methods of contraception. Sterilization involves a relatively simple surgical procedure that provides life-long protection against pregnancy. Sterilization is appropriate for men and women who are certain they do not want more children. Permanent methods of contraception are female and male sterilization method involve minor surgery (Global, 2018).

#### Male sterilization or vasectomy

Is simple surgical procedure where tiny hole is made in the scrotum (the sac that holds the testicles), and both tubes (vas deferens) that carry a man's sperm to his penis are cut and blocked. This keeps sperm out of the semen, the fluid that is released by a man during an ejaculation (Division & Welfare, 2013).

#### Female sterilization or tubal ligation

Is permanent method of contraception for female also called tubal ligation is a relatively simple surgical procedure, a very small incision is made in a woman's abdomen, and her fallopian tubes are cut and blocked so that eggs cannot move through the tubes to meet the sperm. Female sterilization has no side effects, and complications are extremely rare when the procedure is performed by a well-trained health care provider (World Health Organization, 1992).

#### 2.2. Empirical literature

#### 2.2.1 Prevalence of modern contraceptive methods utilization among reproductive age

Worldwide, in 2019, 44 per cent of women of reproductive age were using a modern method of contraception, where 49% of women in the reproductive age were using some form of contraception, an increase from 42% (a total of 554 million women) in 1990. Contraceptive use among women of reproductive age in 2019 was above 55% in 37 countries and below 20% in 23 countries. Use of contraceptive methods increased in all regions between 1990 and 2019(Nations, 2020).

The use of contraception among women of reproductive age in sub-Saharan Africa increased from 13% in 1990 to 29% in 2019, In Oceania, from 20% to 28% in Northern Africa and Western Asia, from 26% to 34% in Central and Southern Asia, from 30% to 42% and in Latin America and the Caribbean, from 40% to 58%. By 1990, all other regions had already reached a prevalence of contraceptive use of greater than 50%, including Northern America and Europe, where use from 57% in 1990 to 58% in 2019, Eastern Asia and South Eastern Asia, from 51% to 60% and Australia and New Zealand, from 56% to 58% (Getayeneh Antehunegn Tesema,, 2021).

According to RDHS over half (53%) of married women aged 15-49 use any method of family planning 48% use any modern method and 6% use any traditional method in 2017 but in 2020 percentage of women whose demand satisfied with a modern method of contraceptive shift from 63.5% to 71.3% in 2020. Injectable are the most popular modern method 24% in 2017 and 51.1% in 2020, followed by the pill and implants both are increased from (8% each) in 2017 up

to 16.9% in 2020, male condom was used at 7.9% in 2020 and IUD was used at 2.5% in 2020. (Survey, 2019), In the same study married women living in urban areas are slightly more likely to use a modern method of family planning than those living in rural areas (51% versus 47%) in 2017. Modern method uses ranges from a low of 41% in West province to a high of 55% in North province (Survey, 2019).

#### 2.2.3 Associated factors to the use of modern contraceptive among reproductive women.

There are positive factors (factors influencing use of modern contraceptive) and negative factors (factors preventing use of modern contraceptive).

# 2.2.3.1 Factors influencing use of modern contraceptive methods among reproductive women.

To ensure proper care of children: study conducted in Ghana in 2019 show us that 66.1% of women used modern contraception in order to ensure proper care for children(Afriyie & Tarkang, 2019). Because breastfed for a longer period of time, which allows them to reap the benefits of breastfeeding including: better nutrition, protection from childhood diseases(Global, 2018).

Social media (Exposure to message of family planning): the study conducted in Philippines and Myanmar show us that The prevalence of contraception use was 57.2% in the Philippines and 55.7% in Myanmar before the women be exposed to social media, the study show us that the results showed that women who were exposed to media were more likely to use contraception, media exposure also had a significant positive effect on demand satisfaction regarding use of modern contraceptive methods where the rate of utilization increased to 70.5 in Philippines and 67.1% in Myanmar(Das et al., 2021).

**Education level**: according to RDHS in 2019-2020 in Rwanda shown that education level of women is big factors associated to the use of FP, where women with no education there fertility rate is 4.1, as compared with 3.2 among women with secondary education(Survey, 2019).

In order hand, high level of education is positively associated with use of modern contraceptive. Educated women are more aware of methods of contraception and their benefits, which is to reduce the risk of unwanted pregnancies(Survey, 2019). One study in Ghana found that the odds of using modern contraceptive methods were higher in women with high education compared to women with primary or no education(Tuyishime, 2016).

Rural/urban residence: Studies have shown that rural-urban differences in contraceptive adaptation are the highest in Sub Saharan Africa. In some areas the rate is more than twice as high as among urban than among rural. This difference can be attributed to more exposure of urban women to information leading to access to health facilities in terms of good infrastructure and availability of FP services(Ahinkorah et al., 2021). One study in Ghana showed that distance to health facilities also influences the use of modern contraceptives where women living more than 2km away from the nearest health Centre that provides modern contraceptives were less likely to use contraceptives. In developing countries rural women have difficulties of accessing health facilities compared to women in urban areas due to long distance between the nearest health facility and home (Ahinkorah et al., 2021).

**Household wealth:** contraceptive use has been associated with the wealth of households. In a study conducted in Newly Independent States, women from rich families were more likely to use modern contraceptive use compared to women from poor communities (Tuyishime, 2016).

Women's empowerment: is also one of the key factors that influence modern contraceptive use. Women's empowerment involves the ability of women to make decisions in many life aspects like economic, socio-cultural, familial and interpersonal, and legal dimensions. Studies have shown a positive association between contraceptive use and the empowerment of women. In one study from Nigeria, suggested that women who have a say in household decision making are more likely to be able to control their fertility compared to women who don't have a say in their homes. In order to enforce women's empowerment, the Rwandan government has focused on promoting education and employment of girls, which helps them to know what is happening outside in the society and allow them to have access to income and power, in decision making about their health and other life aspects and improve their living standards (Tuyishime, 2016).

#### 2.2.3.2 Factors preventing/ stopping modern contraceptive use among reproductive women.

**Partner's disapproval**: the study conducted in Ghana in 2019 show us that 64.2% of the women were not using modern contraception were not doing so because of their partner's disapproval (Afriyie & Tarkang, 2019).

Waiting for return of menses: the study conducted in Rwanda show us that 58% women do not use modern contraceptive method in postpartum because they believe that they can't get pregnancy, they wait until they return to the menses this suggests that postpartum women need more information about when they are at risk for another pregnancy (Williams et al., 2021).

**Religion**: the study conducted in DRC in Minebwe community in 2019 show us that 64.7% were not use MC due to religious belief; the majority of this community is either Protestants or catholic. They believe that FP is a form of abortion which is against the low of God, they rather see whoever uses contraception as a sinner who works against the will of God for procreation, these arguments were also found in similar studies conducted in Ghana, Nigeria, and DRC where use is very low as in this case(Afriyie & Tarkang, 2019).

Culture: the study conducted in DRC show us that the decision of their decision of their husbands to disallow the use of MC are 40.9%. culture belief and gender inequality is another identified barrier to FP uptake. The majority of women did not use any form of contraception because their husbands disapproved of it. This is in line with some previous finding in other part of Africa like Ghana and Nigeria. Same did not use it because of discrimination from community including members of their families and the church. Some even believed that only prostitutes use contraception(Chowdhury & Chakraborty, 2017).

Lack of information regarding use of modern contraceptive methods: the study conducted in Burkina Faso in 2020 show us that lack of knowledge is major cause for their low usage(Bado et al., 2020). Due to poor information, about 1/3 of women refused to use MC because of the belief that FP causes health related problems. They believed that FP makes women permanently sterile, uses contraception will not be able to get pregnant or give birth anymore (Kaniki, Freddy Rukema, 2019).

**Fear of related side effect and rumors:** According to RDHS in 2019 show us that 30% do not use modern contraceptive methods due to side effect and health concerns. Many participants in this study saying things like if I take pills, I feel nauseous, I don't see my period(Survey, 2019). And also the study conducted in DRC in Minebwe community shows that nonuse of MC in general are 85.7% and due to fear of side effect are 32.6%(Chowdhury & Chakraborty, 2017).

#### 2.3 Research gap

The researcher may have learned from experience or through literature review that their women who are in reproductive ages uses modern contraceptive methods. The huge gap can be seen between urban and rural areas in modern contraceptive use that has been consistent in many studies from other countries, still be a problem in Rwanda especially in rural area by different factors. This may be related to the shortage of health workers in rural areas by where community health workers were trained to inform people about use of modern contraceptive methods and to provide some contraceptive methods while visiting women at their homes and being intermediate between health systems are still a problem in rural areas.

Thus, with community health workers the problem of distance to health facilities, information about FP and health service provision still remains the reason why in rural area still burdens. Also, as women from rich households are more likely to use contraceptive methods different to rural region most are unemployed, because these women are more unexposed to education and unexposed to access the income resources either from their work or from their families which will allow them to accessibility of health services still be a problem. In this study more will be conduct in rural areas especially in health Centre from poor families which can also explain the low prevalence of modern contraceptive use in this region. Women from poor families are less educated, less exposed to information and health facilities and more importantly less empowered.

Gaps in reproductive health/family planning and sexual health care account for nearly one-fifth of the worldwide burden of illness and premature death, and one-third of the illness and death among women of reproductive age.

#### 2.3. Conceptual framework:

A conceptual framework was made based on previous literature reviews about factors associated to modern contraceptive methods utilization as shown in Figure below,

In this conceptual framework access to FP information and services and women's empowerment are directly related to modern contraceptive use, socio-economic characteristics and age of women and all of these factors and their associations and their effect to modern contraceptive utilization, may also depend on the region in which women are coming from.

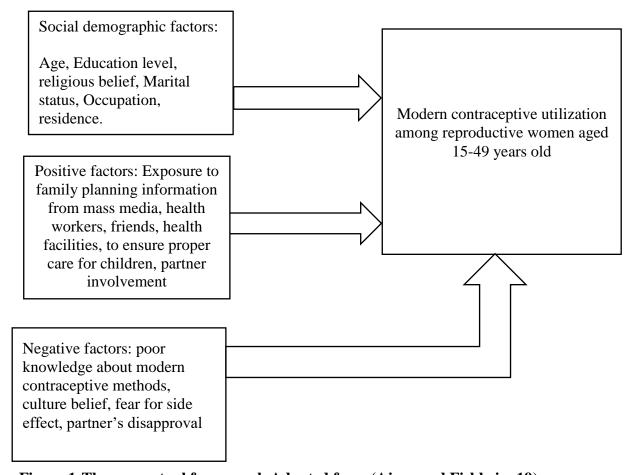


Figure 1:The conceptual framework Adopted from (Ajzen and Fishbein, 19)

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

The present chapter is describing the methodological approach that was used to conduct the

research. It includes the study area, study design and approach, study population and sample size,

data collection tool and procedure, ethical consideration, data analysis, reliability, and validity

measures.

3.1 Research approach and Study design

In this research, non-experimental quantitative approach was used to assess prevalence of

modern contraceptive utilization and associated factors among reproductive women aged 15-49

years. A researcher was interested in this approach to quantify the data that was collected in the

study. Women of reproductive age who use modern contraceptive methods attend Kibogora

health center was eligible with inclusion criteria and was consented to participate in the study.

A research design is a strategy that is used to find responses to research questions and specify the

variables to be considered, the type of data which are to be collected, the methods and the time of

data collection (Rahi, 2017). A descriptive cross-sectional design was used to assess prevalence

of modern contraceptive methods utilization and its associated factors among reproductive

women aged 15-49 at Kibogora health center.

3.2 Target population

The target population for this study was composed by women of reproductive age between 15-49

years old attending Kibogora health center who was available at time of data collection.

3.3. Sampling procedure

This research was use the non-probability sampling and purposive sampling method in the

selection of samples, non-probability sampling is a sampling technique where the probability of

any member being selected for a sample cannot be calculated. (Steinmetz, 2016) The selection

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was including all women who use modern contraceptive aged 15-49 attended Kibogora Health Center during the study period.

A non-probability convenience sampling strategy was been used to select women of reproductive age between 15-49 years old using modern contraceptive methods in Kibogora health center are eligible.

#### 3.4 Sample size

In quantitative research it is recommended that the sample size calculation should be at the stage of study designing. Other researches they recommend to select a large sample that is represent target population. It is aligned with this reasoning and by considering that the Family planning services receives 100 women comes to seek FP services a month; the following simple formulae for Yamane (1967, p.886) was used to calculate sample size:

 $n=N/[1+N (e)^2]$ , where n = stands for simple size, N: is the size of the population and e: sampling error =+/-5% (Madow, 1968)

Where  $n = 100/1 + 100(0.05)^2$ 

 $^{=}80$ 

Based on the above formulae, with the proportion of the women's attends FP services at desired precision of 5%, the sample size to be used for this study is estimated to be 80 mothers attends FP Services.

#### 3.4.1. Inclusion criteria

- 1. Women of reproductive age (15-49 ages) who have the willingness to participate in the study
- 2. All the women of reproductive age (15-49 ages) who were available at time of data collection

#### 3.4.2 Exclusion criteria

- 1. Women who are not in range of reproductive age (15-49 ages)
- 2. Women of reproductive age (15-49 ages) who have not the willing to participate in the study

#### 3.5 Research instruments for data collection

A structured questionnaire consisted of three sections was used to find out or to assess prevalence of modern contraceptive utilization and associated factors among reproductive women aged 15-49 years at Kibogora Health Center. Every section was consisted of a set of structured questions developed using a simple language that respondents was able to understand so that completed it without researcher's assistance in order to minimize biases during data collection. The questionnaire was developed in two languages used in Rwanda, which were Kinyarwanda, and English to minimize the barriers of communication to the respondents

#### 3.6 Data collection procedures

The researcher was administering the questionnaire to each participant with a letter contain all explanations concerning the objective of the research, clear and concise instructions for completing the questionnaire. The participants have 5-10 minutes to read the questionnaire and ask for any clarification when responding to questions, after which they were get 15 min to fill the questionnaires. After 15 minutes, the researcher was start to collect the questionnaire. Each participant was taking place in undisturbed place chosen by the participants in Kibogora health center.

#### 3.7 Ethical considerations

The clearance to conduct the study from Kibogora polytechnic was requested by the researcher and was submitted to Kibogora health center administration for authorization of carrying out our research. The participation is voluntary and confidentiality. Names were not necessary to appear on questionnaire and also, we obtain consent from study participant before data collection for the participants and to refuse to participate in our study, there is no harm or loss any benefit.

#### 3.8 Data analysis

After data collection about the rate of utilization of modern contraceptive methods and associated factors, data analysis was been guided by SPSS version 26 software in order to measure utilization rate of modern contraceptive methods and associated factors in women of reproductive age (15-49 ages) in Kibogora health center.

#### 3.9 Reliability and validity measures

Validity and reliability are the major criteria for measuring the instrument quality and adequacy.

#### **Validity**

Items of the questionnaire were covering all objectives of the research. A questionnaire was observed to see whether is complete; data entry was be accomplished and analyzed to see whether the aims and objectives of the study were achievable. Adjustments were made accordingly, in case required, with the guidance of the supervisor.

#### Reliability

Reliability is the consistency of an instrument or a measure. In the study, the questionnaire was pre-tested in 10 women who use modern contraceptive was been selected in Kibogora district hospital to assess the reliability of the research instruments. Pre-test is a measure of the stability of response over time in the same group of respondents and re-test is for the second time.

# CHAPTER FOUR: DATA PRESENTATION, ANALYSIS, INTERPRETATION AND SUMMARY

#### 4.0. Introduction

This chapter presents the findings from participants on the topic of Prevalence of modern contraceptive methods utilization and associated factors among reproductive women aged 15-49 years in Kibogora Health Centre. The presentation of the findings was done according to the study objectives. Data are presented and analyzed by using use of SPSS version 26 through quantitative data analysis in which frequency, tables, and percentages were established and association between variables was identified. Data were collected through means of questionnaires on 80 women using modern contraceptive methods filled questionnaires for the collection of the primary data.

#### 4. 1 Data presentation and analysis

# 4.1.1. Social demographic information

Variables	Value	Frequency	Percentage %
		(n=80)	
Age	Between 15-25	17	21.3
	Between 26-35	43	53.8
	36-45 years old	15	18.8
	46 and above	5	6.3
Religion	ADEPR	28	35.0
	Methodists	26	32.5
	Adventists	5	6.3
	Catholic	12	15.0
	Others	9	11.3
Marital status	Single	7	8.75
	Married	71	88.75
	Divorced/separated	2	2.5
<b>Education level</b>	Illiterate	7	8.8
	Primary	34	42.5
	Secondary	28	35.0
	University	11	13.8
Occupation	Employee	12	15.0
	Unemployed	62	77.5
	Student	6	7.5
Residence	Rural area	58	72.5
	Urban area	22	27.5

Table 1: Table showing social demographic data

Above table shows socio-demographic characteristics of the participants. The majority of participants were aged 26-35 years with 53.8% (n=43), followed by 15-25 year with 21.3 %( n=17), 36-45 year with 18.8% (n=15) and 46 and above with 6.3% (n=5).

The participants have different religion the majority are ADPR with 35.0% (n=28), then Methodist follow with 32.5% (26), catholic with 15.0% (n=12), and then others have 11.3% (n=9).

About marital status the married has majority of 88.75% (n=71), followed by single 8.75% (n=7) and divorced 2.5% (n=2). participant with 88.8% (n =71), followed by single with 8.8% (n=7) and divorced/ separated with 2.5% (n=2)

The participants have differences in educational background, where primary, secondary, the university and illiterate with 42.5% (n=34), 35.0% (n=28), 13.8% (n=11) respectively, those who never went to school were minority 8.8% (n=7).

The occupation of participants was dominated is unemployed with 77.5% (n=62) followed by employee 15.0% (n=12), then minor are students with 7.5% (n=6). Then the participant residence is rural area with majority of 72.5% (n=58) and minor is 27.5% (n=22).

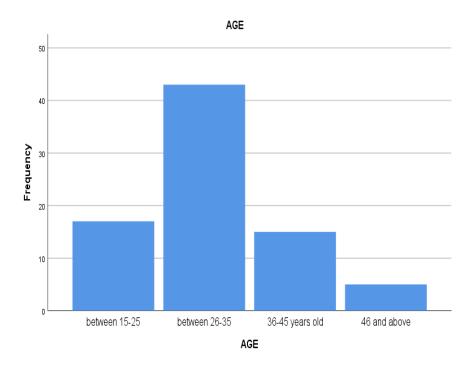


Figure 2: Showing age of participant

### 4.1.2 The factors associated to the utilization of modern contraceptive

Variables	Value	Frequency	Percentage
		(n=80)	%
Number of children	None	4	5.0
	Only one	10	12.5
	Two children	29	36.3
	Three children	17	21.3
	Four and above	20	25.0
Where do you heard information	Class	4	5.0
about modern contraceptive	Social media like radio	1	1.3
	Friendly	1	1.3
	Family	4	5.0
	Health facility visit	66	82.5
	Community health workers	4	5.0
What is the distance from your	under 30 minutes	23	28.7
house to the family planning	between 30 and 1 hour	28	35.0
service center			
	between 1 hour to 2 hours	24	30.0
	Above 2 hours	5	6.3
Residence	Rural area	58	72.5
	Urban area	22	27.5
Who in your family usually takes	Me	16	20.0
the final decisions of family	Partner	1	1.3
planning	me and partner together	63	78.8
where do you get the family	Pharmacy/Drug shop	4	5.0
planning services			
	Government health facility	76	95.0

Which of the following reasons	Religious and culture beliefs	8	10.0
prevent women to use			
contraceptives			
	Attitude of contraceptive providers	1	1.3
	Lack of knowledge and side effects	64	80.0
	Others	7	8.8
have you had any side effects	Nausea and vomiting	9	11.3
	Headache	12	15.0
	Dizziness	3	3.8
	Amenorrhea / oligomenorrhea	26	32.5
	Weight changes	6	7.5
	None	22	27.5
	Failure methods	2	2.5

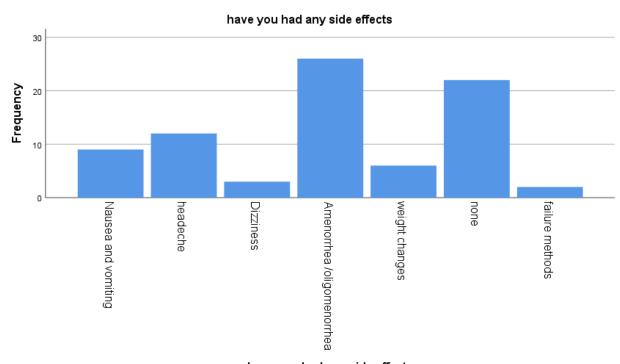
Table 2: The factors associated to the utilization of modern contraceptive

To identify the factors associated to the use of modern contraceptive methods among reproductive women aged 15-49 years old at Kibogora Health Center, seven factors were proposed and asked in the form of multiple-choice questions. Among the factors, some were inhibiting the utilization of modern contraceptives others enhances the utilization of modern contraceptives.

Those inhibiting the utilization, not having enough knowledge on modern contraceptive methods and side effects of modern contraceptives were noted with high percentage 80% (n=64). The more common side effect is Amenorrhea / oligomenorrhea that count 32.5% (n=26), followed by none side effect 27.5% (n=22), headache 15% (n=12), nausea and vomiting 11.3% (n=9) and lastly are weight changes, dizziness and failure methods 7.5% (n=6), 3.8% (n=3) and 2.5% (n=2).

Those factors enhancing the utilization, having attended health center visits were noted large number. The sources of information about modern contraceptive were as the following: health center visit  $82.6 \, \%(n=66)$ , followed community health workers, family members, schools all with 5% each, lastly friends have only 1.3% (n=1).

### Figure Showing side effects of modern contraceptives in participants



have you had any side effects Figure 3:Showing side effects of modern contraceptives

# 4.1.3 The correlation between socio-demographic data and associated factors of modern contraceptive methods utilization among reproductive women aged 15-49 years.

Age		ern contrac	_		ers on utilizat	tion of
Age	accep					
Age		oting	rejecti	ng	test used	p-value
· · · · · · · · · · · · · · · · · · ·	utilization		utilization			
	n	%	N	%		
15-25	14	17.5	3	3.75	_	
26-35	30	37.5	13	16.25	Fischer	0.38
36-45	11	13.75	4	5	test	
46-above	3	3.75	2	2.5	-	
ADPR	19	23.75	9	11.25	Fischer	
Methodist	20	25	6	7.5	 test	0.094
Adventist	4	5	1	1.25	_	
Catholic	8	10	4	5	_	
Others	7	8.75	2	2.5		
Marital status						
Single	5	6.25	2	2.5	Fischer	0.63
Married	51	63.75	20	25	test	
Divorced	2	2.5	0	0		
					_	

<b>Education level</b>						
Illiterate	7	8.75	0	0		
primary	27	33.75	7	8.75	Fischer	0.049
Secondary	18	22.5	10	12.5	test	
University	6	7.5	5	6.25	_	
Occupation						
Occupation Employee	7	8.75	5	6.25		
<del>_</del>	7 45	8.75 56.25	5 17	6.25 21.25	Fischer	0.075

Table 3: The correlation between socio-demographic data and modern contraceptive utilization

According to the results from the table above the education level (p-value 0.015) is the only social demographic factors that has significance relationship with modern contraceptives utilizations.

Other social demographic factors like age, religion, marital status and occupation have no significant relationship with modern contraceptives utilization.

Those factor to have significance it requires the P-value to be most be below 0.05, and the factors with no significance impact their p-value are above 0.05.

4.1.4 The correlation between associated factors of modern contraceptive methods and utilization of modern contraceptive methods among reproductive women aged 15-49 years.

Associated factors		Cori	relation			
	Effect of associated factors of model					ive methods
1	on uti	ilization of	modern c	contraceptiv	res methods.	
1	accepting		rejecti	ing	test used	p-value
1	utiliza	ation	utiliza	ıtion		
	n	%	N	%		
Number of children						
None	4	5	0	0		
Only one	10	12.5	0	0	Fischer	0.185
Two children	29	36.25	0	0	test	0.102
Three children	17	21.25	0	0	iesi	
Four and above	19	23.75	1	1.25		
Where do you hear inform	ation?					
Class	4	5	0	0	Fischer	
Social media like radio	1	1.25	0	0	test	0.702
Friendly	1	1.25	0	0		0.792
Family	4	5	0	0		
Health facility visit	65	81.25	1	1.25		
Community health	4	5	0	0		
workers						
Distance from your home						
under 30 minutes	23	28.75	0	0	Fischer	0.547
between 30 and 1 hour	27	33.75	1	1.25	test	

between 1 hour to 2 hours	24	30	0	0		
Above 2 hours	5	6.25	0	0		
Residence						
Rural area	57	71.25	1	1.25		
Urban area	22	27.5	0	0		
					Fischer	0.421
					test	
who decide use of family p	lanning					
Me	16	20	0	0		
Partner	1	1.25	0	0	F. 1	0.607
me and partner together	62	77.5	1	1.25	Fischer	0.607
where do you get the					test	
family planning services						
ranniy planning services	4	5	0	0		
Pharmacy/Drug shop	7.5	02.75		1.25	F. 1	
Covernment health facility	75	93.75	1	1.25	Fischer	
Government health facility					test 0.748	
reasons prevent women						
to use contraceptives						
Religious and culture	8	10	0	0		
Rengious and culture					Fischer	

1	1.25	0	0	test
				0.014
64	80	0	0	
6	7.5	1	1.25	
9	11 25	0	0	
	11.23	V	Ü	
12	15	0	0	
12	13	V	Ü	
3	3.75	0	0	
26	22.5	0	0	Fischer
20	32.3	U	U	test 0.258
6	7.5	0	0	
21	26.25	1	1.25	
	2.5	0	0	
2	2.5	0	0	
	64 6 9 12 3 26 6	64 80 6 7.5 9 11.25 12 15 3 3.75 26 32.5 6 7.5	64       80       0         6       7.5       1         9       11.25       0         12       15       0         3       3.75       0         26       32.5       0         6       7.5       0         21       26.25       1	64       80       0       0         6       7.5       1       1.25         9       11.25       0       0         12       15       0       0         3       3.75       0       0         26       32.5       0       0         6       7.5       0       0         21       26.25       1       1.25

Table 4: The correlation between associated factors of modern contraceptive methods and utilization of modern contraceptive methods among reproductive women aged 15-49 years.

# Description of table of prevalence of modern contraceptive utilization in kibogora health center

According to the results from the table above the reasons prevent women from modern contraceptive methods utilization is the only one factors have significant, is a combinations of associated factor has significance relationship with modern contraceptives utilizations of p-value of 0.014, While other factors like Number of children, source of information, distance from home, residence, who decide use of family planning, where they get family planning service and side effect with p -values of 0.185, 0.792, 0.547, 0.421, 0.607, 0.748, and 0.258 respectively, have no significant relationship with modern contraceptives utilization.

# 4.1.5 The prevalence of modern contraceptive methods utilization among reproductive women aged 15-49 years old at Kibogora Health Center

Independent Variable	Value	Frequency	Percentage %
		(n=80)	
Have you ever used a contraceptive method of	Yes	80	100.0
family planning	NO	0	0
which methods have you ever used	Pills	18	22.5
	Condoms	10	12.5
	Injection	25	31.3
	Implants	25	31.3
	Tubal ligation	2	2.5
Are you currently using a method of family	Yes	79	98.8
planning	No	1	1.3
If yes, which ones	Pills	12	15.0
	Condoms	13	16.3
	Injection	22	27.5
	Implants	28	35.0
	Tubal ligation	4	5.0

**Table 5: Showing the prevalence of modern contraceptive** 

To get prevalence 4 question were asked; injection and implants were the common method that were used. All of the respondents have ever used one of the contraceptive methods. The majority has used injection 31.1%(n=25), implants 31.1%(n=25), and least used is tubal ligation 2.5%(n=2). During the period of data collection among 80 respondents only 1 was not using any of modern contraceptives. The common contraceptive in Kibogora health center are implants 35.0% (n=28) and injection 27.5% (n=22). Others follow condoms, pills that count 16% (n=13), 15% (n=12) and lastly tubal ligation with 5% (n=4).

The table below show current use of modern contraceptive methods in Kibogora health center:

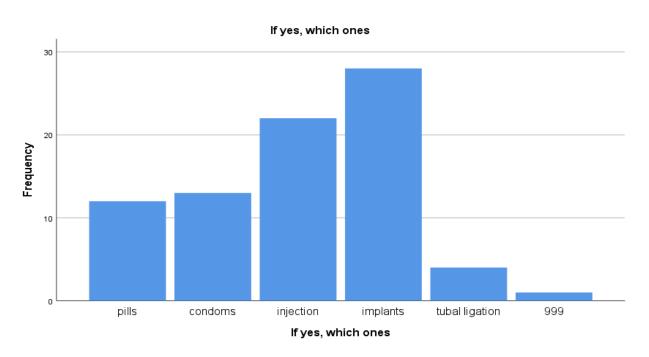


Figure 4: The prevalence of modern contraceptives

#### 4.2 Discussion of findings

#### 4.2.1 Prevalence of modern contraceptive utilization

To get prevalence four questions were asked; injection and implants were identified as the common method used by participants. The majority used injection 31.1%(n=25), implants 31.1%(n=25), pills 22.5%(n=18), condoms 12.5%( n=10) and lastly tubal ligation with 2.5% (n=2). This is similar to the study conducted in sub-Saharan Africa about modern contraceptive where the most common types of modern contraceptive used were injection 39.4%, condoms 17.5% and implants with 26.5% (Boadu, 2022). During the period of data collection among 80 respondents only 1 was not using any of modern contraceptive's methods means that 98.8%(n=79) use modern contraceptive. The common contraceptive in Kibogora health center are implants 35.0% (n=28) and injection 27.5% (n=22). Others follow condoms16.3% (n=13), pills that count 15% (n=12), and lastly tubal ligation with 5% (n=4). This was supported by RDHS in study conducted 2019 where Implants and injectables are the most commonly used modern contraceptive methods.

#### 4.2.2 Factors associated to the utilization of modern contraceptive methods

Based on finding, women who have two children are more likely to use modern contraceptive 36 .3% (n=29) than women who doesn't have child 5%(n=4), this was similar with the study conducted in Ghana where 67% women who have more children are more likely to use modern contraceptive (Afriyie & Tarkang, 2019).

From bivariate analysis there was significant association between level of education and modern contraceptive utilization. These who are studied were more likely to use modern contraceptive as compared to those who are illiterate. This finding is comparable the study conducted in Ghana show us that modern contraceptive use is higher among educated women (42.2%) than among uneducated women(2.2%) (Afriyie & Tarkang, 2019). Educated women are more aware of methods of contraception and their benefits, which is to reduce the risk of unwanted pregnancies.

We have found that the calculated p value of age was 0.38, religion was 0.094, marital status was 0.63 and occupation with p value of 0.075, we accepted the null hypothesis, there is no

significant association between these factors and utilization of modern contraceptive, this finding means that use of modern contraceptive not forbidden by these factors. We found that there is significant associated between fears for side effect, lack of knowledge and utilization of modern contraceptive methods where at Kibogora health center the Lack of knowledge on modern contraceptive methods and side effects of modern contraceptives were noted with high percentage 80% (n=64) that can prevent women from using modern contraceptive methods. This was supported by RHDS in 2019 where 30% do not use modern contraceptive methods due to side effect and health concerns.(Survey, 2019). These are similar to the results from the study conducted in DRC about factors preventing modern contraceptive methods utilisation which also found that due to poor information, about one-third of women refused to use any form of modern contraception because of the belief that family planning causes health related problems. They believed that women who use modern contraceptive methods suffer from health problems while some believed that family planning makes women permanently sterile. These findings are also in line with studies from a different region of Sub-Saharan Africa.(Chowdhury & Chakraborty, 2017)

In general, lack of knowledge and fear for side effect has significant associated with p value of 0.014 means that can prevent women from using modern contraceptive. The same finding with study conducted in Ghana where (64.2%) were not using it because of their partner's disapproval, 66.1% due to religion and culture beliefs.(Debebe et al., 2017). common side effect presented by high number of participant is the Amenorrhea /oligomenorrhea that count 32.5% (n=26). The failure methods are low with 2.5% (n=2). Many of participants heard information about modern contraceptive methods during health center visit 82.6 %(n=66) this increases the chance of using modern contraceptive methods where current prevalence of MCM is 98.8% (n=79).

#### 4.3 Summary of findings

This Study conducted in 80 women who use modern contraceptive, in which the majority of participants were aged 26-35 years old with 53.3% and minor participant were age 46 and above years. On religion majority were ADPR with 35% and most of them are married women with 88.75%. Unemployment have high participation with 77.5% and 72.5% live in rural area. The study shows us that side effect of modern contraceptive use and lack of knowledge about modern

contraceptive were mostly factors preventing modern contraceptive utilization with 80%. Assess to family planning information was associated to MCM use where 82.6% heard information about modern contraceptive during health center visit. About prevalence of modern contraceptive utilization implants is highly used than other methods with 35%.

CHAPTER FIVE: GENERAL CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

As previously mentioned in chapter one, this study was aimed to assess prevalence of modern

contraceptive methods utilization and associated factors among reproductive women aged 15-49

years at Kibogora health center. This chapter presents the study conclusion and

recommendations, based on the study objectives and research questions, and the chapter ends up

are the suggestions on future research studies for prevalence of modern contraceptive utilization

and associated factors among reproductive women.

**5.1 Conclusion** 

After analysis of prevalence of modern contraceptive utilization and associated factors among

reproductive women aged 15-49 years old at Kibogora health center, most study's participant

80% strongly agree that side effect and poor knowledge about modern contraceptive methods

prevent women from using modern contraceptive methods and 10% strongly agree that culture

and religion prevent women from using modern contraceptive while other 10% agree other

different factors that prevent women from using modern contraceptive.

The result showed that current prevalence of modern contraceptive at Kibogora health center

among 80 participants 79 (98.8%) use one methods of modern contraceptive. The highest used

method is in implant with 35% and least used is tubular ligation with 5%. However, the high

prevalence of modern contraceptive utilization is high in married with 88.8%, women aged 25-

36 years old with 53.8% and in ADPR religion with 35%.

**5.2 Recommendations** 

This study is showing a prevalence of modern contraceptive methods utilization and associated

factors among reproductive women aged 15-49 years old, possible barriers may be associated to

lack of knowledge about modern contraceptive and side effect associated to use of different

methods of modern contraceptive, so to increase knowledge of women and men about modern

contraceptive and to teach them how to manage those side effect is a great importance.

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To Kibogora health center is better to promote the health education (counseling) about modern contraceptive methods which are available and the importance of modern contraceptive on family in general for women and men who attend family planning program and it's better to increase action should be taken to improve social media message and increasing the awareness about modern contraceptive methods. To encourage women who attend family planning program at Kibogora health center to takes the final decisions about method of modern contraceptive and number of children with their partners. Integration of men's participation in the FP program, follow up for those who use FP should be conserved, integration of FP program into community workers and increase training about modern contraceptive methods for community health workers. All reproductive women, should be encouraged to visit—the FP service in order to get full information about modern contraceptive methods.

#### **5.3 Suggestion for further study**

At this area of study where is conduct in women who are available in time of data collection at Kibogora health center, the result about utilization of modern contraceptive methods showing is good where in 80 participants only one woman not using it, our suggestion for future researchers is to conduct this research in community than in women who attending Kibogora health center in order to realize the utilization of modern contraceptive in this community.

There are still few studies about prevalence of modern contraceptive methods and associated factors among reproductive women aged 15-49 years old in Rwanda, there is a need to do wide research on prevalence of modern contraceptive methods and associated factors among reproductive women. To conduct similar research to solve problem related to modern contraceptive utilization and associated factors among reproductive women.

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**APPENDICES** 

**Appendix I: Informed consent form English Version** 

KIBOGORA POLYTECHNIC UNIVERSITY

SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF NURSING

PREVALENCE OF MODERN CONTRACEPTIVE METHODS UTILIZATION

AND ASSOCIATED FACTORS AMONG WOMEN WITH 15-49 YEARS IN

KIBOGORA HEALTH CENTER.

Introduction

Our names are IZABAYO Dany & ISHIMWE Leonille, a fourth-year students in nursing

at Kibogora Polytechnic University. We would like to request you to participate in our

study. The purpose of this document is to give you information need to participate in this

study. Please read this form carefully, you are free to ask questions about study and the

investigator is available to answer you.

**Purpose of the study** 

To determine the prevalence of modern contraceptive methods utilization and associated

factors among women with 15-49 years in kibogora health center. Your participation in

this study will be helpful.

**Procedures:** If you agree to participate in this study, you will be given a questionnaire

which you will be asked to answer.

**Risks:** There are no known risks or harm that may result from taking part in this study.

**Compensation:** No monetary or material benefit will be given to the subjects for

participating in this study.

b

Confidentiality and privacy: All of your answers will be kept confidential. Your name and any other personal information about you will never appear in any reports or publications about this study. Your answers will only be used for research purposes only.

**Voluntary Participation:** Participation in this study is voluntary and you are free to withdraw from the study if you wish without any penalty.

**Questions:** If you have any questions or correspondence about the study, the researchers can be contacted on: 0780624307 Dany IZABAYO, 0780449743 Leonille ISHIMWE.

Study title: Assessment the prevalence of utilization of modern contraceptive methods

#### **Appendix 2: Consent to participate**

and associated factors among women with 15-49 years in Kibogora health center.
IConsent /accept to participate in this study entitled: "assessment the
prevalence of modern contraceptive methods utilization and associated factors among
women with 15-49 years in Kibogora health center" conducted by students of Kibogora
Polytechnic University. I have been explained the study in detail and its purpose.
understand that the information I will provide will be kept confidential, it will be used
only for the purpose of the current study. I also understand that I have the right to
withdraw from this study at any time and ask for clarification if there is any difficult. My
participation is voluntary and no force has been used and I will not encounter any risk as
related to this project. No rewards or payment will be provided for participation.

Participants signature	Date
	_
Researcher's signature	Date

## **Appendix 3: questionnaire**

Research Questionnaire English version
Instructions:
The questionnaires comprise by three sections those are:
section A socio-demographic information.
section B: Knowledge about utilization of modern contraceptives methods.
section C: Associated factors on utilization of modern contraceptive methods.
participant's instructions
<ul> <li>✓ Do not write your name on questionnaire</li> <li>✓ Tick only one correct response and multiple responses where applicable.</li> <li>✓ Only women who use modern contraceptive methods aged 15-49 are eligible for this study.</li> <li>✓ This questionnaire consists three sections</li> <li>✓ Tick with √ in the box corresponding to your answer</li> </ul>
SECTION A: socio-demographic factors  1.How old are you?
1.11ow old are you.
15-25
26-35
36-45
46 and above

2. What is your religion?	
ADEPR	
Methodiste	
Advantiste	
Catholic	
Other churches	
3. What is your marital status?	
Single	
Married	
Divorced/separated	
Widowed	
4. What is the level of education?	
Illiterate	
Primary	
Secondary	
University	
5. What is your occupation?	
Employee	
Unemployed	
Student	

6.where do you live?	
Rural area	
Urban area	
7. haw many the number of children does you have?	
No child	
One child	
Two children	
Three children	
Four and above	
SECTION B: KNOWLEDGE ON UTILIZATION OF MODERN	CONTRACEPTION
8a. Have you ever heard of Family planning?	
Yes	
No	
8b. which methods have you heard of? (Select all that apply)	
Pills and Condoms	
Injection and Implants	
Intrauterine devices and Tubal ligation	
Diaphragm	

All above			
9. a. Have you ever used a contraception the response)	ve method of family planning? (Please put a tick besides		
Yes			
No			
9.b If yes, which methods have you ev	er used?		
Pills			
Condoms			
Injection			
Implants			
Intrauterine devices			
Diaphragm			
Tubal ligation			
10.a. Are you currently using a method of family planning? (Please tick one)			
Yes			
No			
10.b. If yes, which ones?			
Pills			
Condoms			
Injection			

Impla	unts	
Intrau	iterine devices	
Diaph	nragm	
Tubal	ligation	
11. Where do	you heard information about modern contraceptive among the	e following:
Class		
Social	media like radio	
Friend	ly	
Family	<b>Y</b>	
Health	facility visit	
Comm	nunity health workers	
12. where do	you get the family planning services that you are currently usi	ing from?
Pharn	nacy/Drug shop	
Gover	rnment health facility	
NGO	s	
13. did anyon	ne explain to you the advantages and disadvantages of the metl	nod of family
planning that	you are currently using? (Please tick one)	
Yes		
No		

14.a. have you had any side effects as a result of using the family planning method? (Tick one)		
Nausea and vomiting		
Headache		
Dizziness		
Amenorrhea /oligomenorrhea		
Changes in weight		
None		
Failure methods		
14.b. Have you consulted a health worker about these side effects?		
Yes		
No		
14.c Will these side effects affect your use of modern contraception in the future	re?	
Yes		
No		
SECTION C. Associated factors on utilization of modern contraceptive method	ls	
15a. Do you discuss family planning with your spouse/partner: (please put a tick besides the		

appropriate response).

Yes	
No	
15b. what the reasons behind?	
I am shy	
He does not accept	
He wants more children	
No chance to talk about family planning	
I think that he will refuse	
Religion/ culture does not accept	
No reason	
Other please specify	
15.c. Who in your family usually takes the final decisions of children?	family planning and number of
I do	
My spouse	
My spouse and I	

	Less than 30 minutes	
	Between 30 minutes and 1 hour	
	Between 1 hour and 2 hours	
	Over 2 hours	
17. Wi	hich of the following reasons prevent women to use contraceptives? (Can	tick more than
	Religious and culture beliefs	
	Attitude of contraceptive providers	
	Attitude of our parents and partner	
	Side effects and lack of knowledge	
	Lack of access and high cost	
	Others	

Appendix II

Kinyarwanda version of utilization

KAMINUZA YA KIBOGORA

ISHURI RY'UBUZIMA

ISHAMI RY'IGIFOROMO

ubushakashatsi kukigereranyo kikoreshwa ryuburyo bugezweho bwokuboneza urubyaro nimpamvu zibigiramo uruhare mu kigonderabuzima cya kibogora

mubagore bari hagati yimyaka 15 na 45.

Inshoza y'ikinyarwanda

Amazina yange ni IZABAYO Dany na ISHIMWE Leonille, tukaba twiga m'umwaka wa kane ishami ry'ubuforomo muri kaminuza ya kibogora polytechnic. tukaba turigukora ubushakashatsi ku kigereranyo kikoreshwa ryuburyo bugezweho bwokuboneza urubyaro nimpamvu zibigiramo uruhare kubagore bari hagati yimyaka 15 na 49 mu

kigonderabuzima cya kibogora. Kwemera gukorana natwe n'umusanzu ukomeye.

Uko bikorwa

Iyo wemeye kwifatanya natwe muri ubu bushakashatsi hari ibibazo usabwa gusubiza. Amakuru uributange aragirwa ibanga kandi azakoreshwa muri ubu bushakashatsi gusa, ntangaruka uzahura nazo muri ubu bushakashatsi. Ntakiguzi gihabwa utanze amakuru. Ni ubushake bwawe kwemera kwifatanya natwe. Kandi ufite uburenganzira bwoguhagarika

no kwanga gusubiza ibibazo ku mpamvu zawe bwite.

Kwemera

Njyewe, ...... Nemeye kwifatanya na IZABAYO Dany na ISHIMWE

Leonile muri ubu bushakashatsi bugamije gusuzuma ikigereranyo kikoreshwa ryuburyo

a

bugezweho bwokuboneza urubyaro nimpamvu z	zibigiramo uruhare mu kigonderabuzima
cya kibogora, nyuma yogusobanurirwa icyo ubul	oushakashatsi bugamije.
Umukono w'ubazwa	_ Itariki
Umukono w'ubaza	Itariki
urupapuro rw'ibibazo ku bushakashatsi ku ki	igereranyo kikoreshwa ryuburyo
bugezweho bwokuboneza urubyaro nimpamv	u zibigiramo uruhare mu
kigonderabuzima cya kibogora.	
Iri bazwa rigizwe nibice bitatu byingenzi ari by	o:
Igice cya 1: ibiranga ugize uruhare mu bushakasl	natsi
igice cya 2: ubumenyi kugukoresha uburyo buge urubyaro	zweho bwo kuboneza
•	
Igice cya 3: impamvu zituma uburyo bugezweho	bwo kuboneza urubyaro bukoreshwa
cyangwa ntibukoreshwe	
AMABWIRIZA	
A ALVAN AND THE ARCHEOL A	

- > Ntiwandike izina kuri uru rupapuro rw"ibazwa ku bushakashatsi.
- > Hitamo igisubizo nyacyo, Kimwe cyangwa birenze kimwe mugihe ari ngombwa.
- > Umuntu ufite imyaka hagati ya 15 na 49 niwe wemerewe gusubiza ibi bibazo

- > Uru rupapuro rw'ibibazo rugizwe nibice 3
- ➤ Urashyira aka √ mumwanya wasinzwe iruhande rwigisubizo cyawe

#### IGICE CYA 1: IBIRANGA UGIZE URUHARE MU BUSHAKASHATSI

1.Ufite imyaka ingahe muri iyi?	
Hagati ya 15 na 25	
Hagati ya 26 na 35	
Hagati ya 36 na 45	
Hejuru ya 46	
2.Usengera murihe dini?	
ADEPR	
Abametodisite	
Abadivantisite	
Abagaturika	
Ahandi, havuge	
3. Vuga irangamimerere yawe ?	
Ingaragu	
Ndubatse	
Natandukanye nuwo twashakanye	
Ndi umupfakazi	

4. Wiz	ze kugera muwakangahe?	
	Sinigeze niga Amashuri abanza Amashuri yisumbuye Kaminuza	
5. uko	ora iki?	
	Akazi kinjiza umushahara buri kwezi Akazi katinjiza umushahara buri kwezi Ndi umunyeshuri	
6.a U	tuye hehe?	
	Mucyaro	
	Mumugi	
6.b U1	fite abana bangahe? Andika umubare	
igice (	cya 2: ubumenyi kugukoresha uburyo bugezweho bwo kuboneza	a urubyaro
7.a. es	se wigeze wumva amakuru kuburyo bugezweho bwo kuboneza urub	yaro
	Yego	
	Oya	

7.b. uburyo bugezweho bwo kuboneza urubyaro uzi muri ubu bukurikira ni ubuhe	?
Ibinini, Agakingirizo	
Urushinge, Agapira ko mu kuboko	
Agapira ko mumura, Uburyo bwo kuboneza urubyaro bwa burundu kubag	ore
Diyafuragime	
Bwose bwavuzwe haruguru	
8. a. wigeze ukoresha uburyo bugezweho bwo kuboneza urubyaro?	
Yego	
Oya	
8.b. Niba ari yego, ni ubuhe buryo wakoresheje muri ubu bukurikira?	
Ibinini	
Agakingirizo	
Urushinge	
Agapira ko mu kuboko	
Agapira ko mumura	
Diyafuragime	
Uburyo bwo kuboneza urubyaro bwa burundu kubagore	
9.a. ubu ukoresha uburyo bugezweho bwo kuboneza urubyaro?	

Yego	
Oya	
9.b. Niba ari yego, ni ubuhe ukoresha muri ubu bukurikira?	
Ibinini	
Agakingirizo	
Urushinge	
Agapira ko mu kuboko	
Agapira ko mumura	
Diyafuragime	
Uburyo bwo kuboneza urubyaro bwa burundu kubagore	
Ubundi, buvuge	

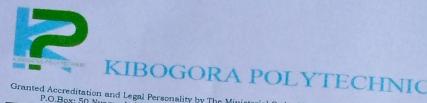
hakurikira:	
Mu ishuri	
Kumbuga nkoranga mbaga, Radiyo	
Munshuti zanjye	
M'umuryango wanjye	
Kukigo nderabuzima	
Mubajyanama b'ubuzima	
11.a. nihe ukura uburyo bugezweho bwo kuboneza urubyaro?	
Mumaduka acuruza imiti	
Kukigo nderabuzima	
Imiryango itegamiye kuri leta	
12. Wigeze usobanurirwa ingaruka na akamaro kuburyo bugezweho bwo kuboneza urubyar ukoresha?	ro
Yego	
Oya	
13.a. ese haringaruka wigeze ugira kuburyo bugezweho bwokuboneza urubyaro muri izi zikurikira?	
Isesemi, Kuruka	
Kubabara umutwe	

10. Nihe wakuye amakuru ajyanye nuburyo bugezweho bwo kuboneza urubyaro muri aha

Kugira isereri	
Kubura imihango cg kugira imihango myinshi	
Guhindagurika kw'ibiro	
ntazo	
13.b. Ese izo ngaruka zatuma udakoresha ubururyo bugezweh	o bwo kuboneza urubyaro?
Yego	
Oya	
igice cya 3: impamvu zituma uburyo bugezweho bwo kubo cyangwa ntibukoreshwe.	oneza urubyaro bukoreshwa
14a. Ujya uganira nuwo mwashakanye cyangwa uwo mubana kuboneza urubyaro?	kuburyo bugezweho bwo
Yego	
Oya	
14b. niba ari oya, kuberiki	
Bintera isoni	
Ntabyemera	
Ashaka kubyara abana benshi	
Ntamahirwe tubona yo kubiganiraho	

Ntekereza ko ashobora kubyanga	
Imyemerere yacu ntibyemera	
Indi mpamvu yivuge	
14.c. ninde ufata umwanzuro kuburyo bugezweho bwo kuboneza urubyaro cyan wabana mushaka kubyara?	gwa kumubare
Njywe	
Uwo twashakanye	
Tubiganira tugafatira umwanzuro hamwe	
15.harimo intera ingana gute kuva aho utuye ujya ahatangirwa serivise zo kubor	neza urubyaro
Munsi y'iminota 30	
Hagati y'iminota 30 n'isaha 1	
Hagati y'isaha 1 n'amasaha 2	
Hejuru y'amasaha 2	
16. Mumpamvu zikurikira nizihe zituma uburyo bugezweho burinda gusama bu	dakoreshwa??
Imyizerere y'amadini, umuco	
Imyitwarire y'ababutanga (urugero abaganga)	
Imyitwarire y'abo twashakanye cyangwa ababyeyi bacu	
Kubura ubumenyi, ingaruka ziterwa no kuboneza urubyaro	
Umuco cyangwa imyemerere ya gakondo i	

appendex 4. Research letter



Granted Accreditation and Legal Personality by The Ministerial Order Nº 7/2015 Official Gazette Nº 03 of 19/01/2015 P.O.Box: 50 Nyamasheke-Rwanda Tel:(+250)783751294 E-mail:info@kp.ac.rw Website: www.kp.ac.rw

## RESEARCH LETTER

June 12 th, 2022

To whom it may concern:



We write this letter to humbly request to allow Ms. ISHIMWE Leonille and IZABAYO Dany to conduct a research in your organization /institution, territory entity.

The above mentioned are bonafide students of Kibogora Polytechnic pursuing Bachelor's degree in General Nursing Department

These students are currently conducting a research topic PREVALENCE OF MODERN CONTRACEPTIVE UTILISATIONOF AND ASSOCIATED FACTORS AMONG REPRODUCTIVE WOMEN AGED 15-49 AT KIBOGORA HEALTH CENTER"

We are convinced that your organization /institution, territorial entity will constitute a valuable source of information pertaining to their research, the purpose of this letter is to humbly request you to avail them the pertinent information they may need .we pledge to ensure that all provided information will be confidential and used in the strict academic purpose.

Any assistance rendered to the candidates will be highly appreciated.

Yours,

Dr. NDABARORA Eleazar,

Dean of Health Sciences Faculty

Kibogora Polytechnic