SCHOOL OF GOVERNANCE

COLLEGE OF ARTS AND SOCIAL SCIENCES

MASTER OF ARTS IN DEVELOPMENT STUDIES

EXAMINING FACTORS LEADING TO UNMET NEED FOR FAMILY PLANNING IN RURAL RWANDA:

Case study of Gisagara District

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A Dissertation Submitted in Partial Fulfillment of the Requirement for the Award of Degree of Master of Arts in Development Studies, School of Governance, College of Arts and Social Sciences (CASS) at the University of Rwanda

Huye, July, 2021

DECLARATION

I, TUVUGISHAPURE Marie Goretti, declare to the best of my knowledge that the work presented here is my original work and has never been published or presented to any institution for similar or any academic award.

TUVUGISHAPURE Marie Goretti

Signature…… Date……

Supervisor

I certify that this work has been done under my supervision, and I confirm that it ready for examination

Dr UWIZEYE Dieudonné

Signature …….Date……

DEDICATION

To Almighty God,

To my beloved husband Maurice Nsabibaruta,

To our children Gabineza Senga Chorentine, Ganineza Senga Ermelinda and Girineza Senga Arnold,

To our parents, brothers and sisters !

ACKNOWLEDGMENTS

To realize this work I have benefited from both professional and personal assitance fom different persons to whom I owe sincere thanks.

I thank Dr Uwizeye Dieudonné, my Supervisor, for his enthousiatic and valuable assistance, advice and guidance all along this research with best comments which not only improved my research skills but also shaped the quality of this thesis.

My sincere gratitude goes to all my lecturers of Master of Arts in Development Studies program at University of Rwanda, who contributed greatly in reshaping my skills and knowledge.

I am very grateful to all my workmates, especially Sylvie Tuyishime and to all my classmates who assisted and encouraged me all along this work.

I am very thankful to Monique Uwingabire, Béatrice Iradukunda and all my brothers and sisters in-law, and friends for unwavering support and encouragement throughout this academic journey.

ABSTRACT

Globally, 45% of more than two hundred million women every year get pregnant while they would desire not by the time or later. Unplanned and unwanted pregnancy affect negatively women not only physically and Psyche and the rate of unmet need for family planning has remained high in developing country especially Rwanda. This study aimed to examine the factors leading to unmet need for family planning in rural Rwanda, using Gisagara District as a case study. It was conducted in line with the three specific objectives: i. To determine family related factors potential to influence decision of not using Family Planning Methods among women living in Gisagara District, ii. To identify the factors related to the accessibility as determinants of unmet need for Family Planning among women of Gisagara District and, iii. To assess women's socio-environmental factors leading to decisions of not using any method of family planning among women of Gisagara District. The present study was guided by the Theory of Planned Behavior (TPB), and used cross-sectional research design to collect information on women living experience. Purposive sampling was used to contact and collect information from people believed to hold information. The study findings revealed that among family related factors that lead women to not use FPM successfully, there is limited husband support, women's own experience and heard information of Family Planning methods (FPM) side effects lead many women to have unmet need for FP. About contraceptive accessibility as determinants of unmet need for FP, even though women had access to information about FPM, they were not pleased by the loss of time and money accompanied by long line, absence of service providers and type of needed products. For socio-environment factors, religion, FPM users and friends, and aids provided to some women also discouraged some of them to use FP methods. The study concludes that among the factors influencing women not to use FPM successfully there is mainly limited involvement and participation of partners. Another main factor is misconception about FPM and contraceptives side effects. As recommendations, Government and all other partners have to work hands in hands and increase campaigns to teach women all about FPM and address the misconception. Also, government and non-governmental organizations should organize forums aiming to encourage men's involvement and participation in FP with proper attitudes. In addition, families have to adopt FPM successfully for sustainable development.

Key words: Unmet need, Family planning, Rural Rwanda

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ABBREVIATIONS AND ACRONYMS

Freq.: Frequency

FP: Family Planning

FPM: Family Planning Methods

CHO: Community Health Officer

CHW: Community Health Worker

SPSS: Statistical Package for the Social Sciences

WHO: World Health Organization

CHAPTER I: GENERAL INTRODUCTION

1.1. BACKGROUND OF THE STUDY

Globally, 45% of more than two hundred million women every year get pregnant while they would desire not to have a baby then or later (Sedgh et al., 2016). This has compromised women's full involvement in development process (Stark, 2000) because the concentration to work for a woman reduces to some extent while pregnant (UNPD, 2014), and can no longer be as productive as before the pregnancy (Stark, 2000). Understandably, unplanned pregnancies have negative effects on development efforts and perspectives in general (Stark, 2000) as it can affect both the body and the psyche. This phenomenon of getting pregnant beyond one's plan is what demographers have called "unmet need for Family Planning". It is calculated as the percentage of current women at reproductive age who want to timely get pregnant or no more children but do not use any contraceptive method out of all current women at reproductive age (Bradley, Croft, & Fishel, 2012).

Worldwide, among the 1.9 billion women of reproductive age (15-49 years) in 2019, 1.1 billion of them wanted to use family planning but 190 million could not use any family planning method while they wanted to avoid pregnancy (Safitri & Siregar, 2019) . These authors argue that the proportion of women who wanted children spacing or stopping having children but who failed stands at 10% of 156 million, the proportion that has remained unchanged since 2000 (Safitri & Siregar, 2019). From 1960 to 2006, contraceptive use was higher in middle and high-income countries, and was lowest in the least developed countries (Ndola, 2007). Ndola argues that prevalence in North America was 76%, Latin America 70%, European 67% and Asia 64% while the average of African countries was at 23.4%. These data are typical evidences of how African countries have high level of unmet need for Family Planning than developed countries while its fertility is high comparing to the developed countries as well as lowest contraceptive prevalence rate (AbouZahr & Wardlaw, 2001).

Further, among 52 countries where Demographic Household Surveys (DHS) were conducted in 2005 and 2014, a percentage of 8 to 38 of women aged 15–49 years respectively were found to have an unmet need for FP (Sedgh et al., 2016). While in 24 countries, at least 25% of women have an unmet need; and 20 of these countries are in Africa (Sedgh et al., 2016). More than 150

million of women at reproductive age had unmet need for family planning in African countries (Kulczycki, 2018) in which the highest level of unmet need in these countries is found in Sub-Saharan Africa including Malawi (36%), Kenya (36%) and Rwanda (37%) (Kulczycki, 2018).

Specifically, 64% of the current women at reproductive age in Rwanda use a method of family planning with 58% using industrial based tools or drugs and 6% using a natural based methods (NISR, 2016). On the other hand, unmet need for family planning in Rwanda was 36% in 2000 and increased to 39% in 2005; then declined to 21% in 2010 and 19% in 2014-2015. Although the percentage of unmet in Rwanda has consistently reduced, the figures remained high compared to the invested efforts (Schwandt et al., 2018). A relatively high prevalence of unmet need for family planning was found in urban areas (14.9%) as well as in rural (13.4%). The Southern province, which is predominantly rural, reported 13.6% of unmet need for family planning in the recent Demographic Household Surveys (DHS) report (NISR, 2020). This potentially compromised the development efforts of rural areas in which women's involvement in development is paramount (UNWomen, 2013).

Specifically, Gisagara District which is almost exclusively rural, ranked 2nd in poverty rate (NISR, 2018). Also, the NISR report of 2016 indicated the population of Gisagara District as predominantly female where 172,051 are female corresponding to 53.3% of the total population (NISR, 2016). In addition, in this District there is low level of Family Planning with lower average of 58.05% (*Gisagara Family Planning Report*, 2020) compared to the national level target of 62% (NISR, 2020). This data indicates a high level of unmet need for Family Planning in Gisagara District. This level of family planning has undoubtedly a strong correlation with the development process of the District. That is why all possible measures and initiatives must be used to alleviate all factors or reasons that are behind handicapping the achievement of family planning.

Upon this low level of family planning issues, according to GISAGARA Family Planning Report of May 2020, different initiatives have been undertaken in Gisagara in order to address the problem of unmet need. In 2015, 1,048 Community Health Workers from 14 health centre sites received trainings in family planning and counseling. Again, in April 2019, residents of Gisagara Districts received free family planning services as well as health sensitization services through Baho Neza integrated campaign, towards ensuring health and happy families. Various partners

including Imbuto Foundation, One UN Rwanda, USAID, and Partners in Health, SNV, the World Bank and Society for Family Health (SFH) altogether worked on family planning effectiveness and efficiency. However, there is still a big number of women (married and unmarried) who do not use any of the family planning methods while they do not want to get pregnant. It is anticipated that there is an urgent need for research in order to understand factors leading to deciding to use family planning among rural women

For tackling the problem of poverty eradication in rural Rwanda, especially in Gisagara District, it is strongly important to consider its people as strong partners in development. The strategy remains Family Planning program. "Family planning in Rwanda is not seen as population control, rather as a way to empower the people" (Schwandt et al., 2018). Thus, it is also necessary to engage women, as core capital, in sustainable development of the family and the whole society. Thus, their health life insurance has to be safeguarded through free family planning. This will help in limiting and get timely pregnancies. Thus, they become able to play their sound role in development of their families but also the whole country. This could not be achieved if the factors of unmet needs for Family Planning and influential aspects together with accessibility of service-related are not perceived properly.

1.2. PROBLEM STATEMENT

Globally, 45% of more than two hundred million women get pregnant every year (Sedgh et al., 2016). In 2012, 190 million women could not use any contraceptive method while they desire to get pregnant then or later (Kulczycki, 2012). Comparing to other countries in worldwide, high income countries have a high level in Family Planning through the use of contraceptive method. In contrast, African countries have highest fertility rate, high unmet needs and lower contraceptive use rate. In Rwanda, according to NISR 2019-20, the level of family planning was at 64% in 2016 of the current married women in reproductive age with unmet need baseline of 19% in 2016. In Gisagara District as well as rural area, there is low level of family planning with lower average of 58.05% (*Gisagara Family Planning Report*, 2020). The phenomena of women who get pregnant beyond their desires or needs impact strongly on sustainable development especially in rural areas.

Much of studies were conducted on unmet need for family planning but studies that focus on rural Rwanda are still lacking. This remains a serious problem which needs attention for the country's sustainable socio-economic development. The country cannot be able to handle this problem in case it does not know the reasons that lead its people to have those unintended pregnancies. Continuously, it leads to discordance between population growth and available resources to satisfy their needs whereas it has been observed that there is often correlation between poverty and the population size vis-à-vis the household income. On another side, women becoming pregnant beyond their needs are not able to adequately contribute to development of the family, community and the country as whole while they are considered as heart of rural development. Consequently, if no research conducted on this unmet need to explore barriers hindering women to meet their family planning needs, poverty eradication in rural areas especially Gisagara District could not be achieved.

1.3. OBJECTIVES OF THE STUDY

1.3.1. GENERAL OBJECTIVES

The main objective of this study is to examine the factors leading to unmet need for Family Planning in rural Rwanda, using Gisagara District as a case study

1.3.2. SPECIFIC OBJECTIVES

The specific objectives of this study are:

i. To determine family-related factors potential to influence decision of not using Family Planning Methods among women living in Gisagara District;
ii. To identify the factors related to the accessibility of contraceptives as determinants of unmet need for Family Planning among women of Gisagara District;
iii. To assess women's socio-environmental factors leading to decisions of not using any method of family planning among women of Gisagara District.

1.4. RESEARCH QUESTIONS

i. What are family-related factors potential to influence the decision of not using Family Planning Methods among women living in Gisagara District?

ii. What are the factors related to the accessibility of contraceptives as determinants of unmet need for Family Planning among women of Gisagara District?
iii. What are women's social environment factors leading to decisions of not using any method of family planning among women of Gisagara District?

1.5. RATIONALE OF STUDY

Through the objective of this study 'examining the factors leading women to get unintended pregnancies', the findings are the benefits for decision makers and practitioners at all levels including individual (micro), community (mezzo) and whole society (macro). This is in search for sustainable policies and actions to address unmet need for Family Planning affecting rural women in their journey to sustainable development. The research findings will give them information which helps in formulation of new policies, revision of the existing policy or a new way of the existing policy implementation. Policy implementers will also get enough knowledge of how to tackle the problem with the approach of community participation. Scientifically, the findings will rise to new perspective of existing knowledge, extension of the existing knowledge and confirming the level at which exiting knowledge stands. For me, as a researcher, this study is one of the requirements for award of Master's degree and consequential benefits out of it.

1.6. SCOPE OF THE STUDY

This research focused on examining the factors leading to unmet need for Family Planning in rural Rwanda. The study has stuck on agents of rural development especially women, as core heart and pillar of development (UNWomen, 2013). It explored the factors influencing women to have unintended pregnancies. Using cross-sectional research design, it assessed the reasons that made women not successfully use Family Planning Methods as a way to fully participate in their development as well as the whole nation's development. Our sample population was taken from Gisagara District-Southern Province and used the time bound of two years (June 2019-May 2021) of unwanted or unintended pregnancies

1.7. LIMITATIONS OF THE STUDY

With limited time and financial means leading to impossibility to reach each respondent in their respective places of residence to collect data, I planned to meet respondents at Sector Health

Centers when they come for antenatal services and postnatal services/vaccinations. Again, there was risk of not providing quality data perhaps due to participants who may be having low education or literacy skills; in this situation, it was good to keep near them for assistance whenever required. Furthermore, considering the fact this research topic is sensitive to people's private lives and that participants might not feel free to express their views on research questions, it was very important to proactively and kindly explain the main purpose of data and their management with ethics.

Fearing to miss how to reach the respondents, as sample, due to disturbance by Covid-19 control measures like lockdown, I planned study activities with different alternatives and schedules. Again, there was possibility for some respondents to think that the researcher might be one of the donors to help or support them. As these preconceptions might make respondents feel not interested to provide information after realizing it is not the case, the strategy opted for was to clearly explain the purpose of research before deep interaction with them and tell them that it was free consent and volunteering to participate in the study. According to weather condition (rainy season) which could disturb data collection plans, different alternatives were preset for mitigation.

1.8. WORK STRUCTURE

This research is presented in five chapters. The first chapter is all about the general introduction composed of the background to the study, the statement of the problem, the research objectives, research questions and rationale, scope and limitation of the study and then work structure. The second chapter talks about the literature review about the topic, theoretical framework and conceptual framework. The third chapter describes the research methodology used, and the fourth presents the findings and interprets them, while the fifth and last concerns conclusion and recommendations of the research.

CHAPTER II: LITERATURE REVIEW

2.1. INTRODUCTION

This chapter focuses on definition of key concepts related to the topic, discusses determinants of unmet need for family planning, its theoretical framework and conceptual framework with different variables. It reviews researches previously conducted by different authors in the areas of family planning to provide relevant insights to the present research.

2.2. DEFINITIONS OF KEY CONCEPTS

2.2.1. UNMET NEED FOR FAMILY PLANNING

Unmet need for Family Planning has been defined by different people in different times since 1960s and its definition has got different revisions throughout different periods and by different authors. By the end of 1970s, the term unmet need described disagreement behavior as of women who want to avoid pregnancy but do not use any contraceptive method (Bradley, Croft, Fishel, et al., 2012). Its 1980s revision defined unmet need as the percentage of all fertile married women who do not want children but are not using any contraception over all fertile women (Bradley, Croft, Fishel, et al., 2012). Unmet need for Family Planning is defined as the percentage of women of reproductive age, who are in union but have an unmet need for Family Planning (UNPD, 2014). Unmet need for Family Planning is also defined as the conditions in which women want to avoid or postpone pregnancy but do not use any contraceptive method (Bradley & Casterline, 2014).

Statistically, unmet need for FP is calculated as the percentage of women of reproductive age (15-49) who have the desire to timely get pregnancy or to stop but do not use any contraceptive method over total number of women of reproductive age (15-49) who are in union(UNPD, 2014). Those women are sexually active, want to limit or delay/postpone pregnancy but are not using any contraceptive method. They include also all pregnant women, fecund women and postpartum amenorrheic women. In demographic study, unwanted fertility impacts more on family size and birth rate and it sociologically determines the relationship and interaction between parents and children (UNPD, 2014).

2.2.2. FAMILY PLANNING

According to WHO, family planning is defined as the ability of a couple to attain desired number of children, by the time and spacing using contraceptives family planning is the ability of the family to determine size, number and time of spacing (Butler & Clayton, 2009). It is the action from individuals' conscience of limiting of spacing the number of children (WHO, 2020). It implies the discussion of couple to the number of children that they are able to provide all about basic needs financially and socio-psychologically (Sara, 2013). Family planning is the way of thinking and living of individuals and couples basing on the knowledge and attitudes of spacing or limiting number of children using contraceptive methods (Kasa et al., 2018). It refers to the ability of a couple to control the time and the number of children (Schwandt et al., 2018) . In Rwanda, NISR (2020) defines family planning as the efforts of couples to timely give birth in the space and the number of children desired using contraceptive methods.

On the other side, contraceptive methods for family planning can be either modern or natural (Hubacher & Trussell, 2015; (Jain & Muralidhar, 2011). These authors state that modern methods include female sterilization, male sterilization, the pill, the intrauterine device (IUD), injectables, implants, male condoms, female condoms, lactational amenorrhea method (LAM), and standard days method (SDM). Natural contraceptive methods are natural ability of women to control fertility and avoid or limit pregnancy by the time and space using methods like rhythm, lactation and withdrawal (Almalik et al., 2018; Jain & Muralidhar, 2011)

2.3. FACTORS LEADING TO UNMET NEED FOR FP

2.3.1. THE ROLE OF THE FAMILY IN THE DECISION A WOMAN MAKES FOR FPM USE

Unmet need for Family Planning is result of different factors which include family influence itself. Some family potentials include partner's approval, family beliefs, size and children's sex preferences, family history and frequency, communication between spouses and women's own reasons as a member of this family (Machiyama et al., 2017).

Furthermore, in some societies, there is rare communication and conversation between husband and wife which could be the best way to talk about family planning and the strategies (Sharan & Valente, 2002). Through inter-spousal communication, partners talk about and agree on the

number of children, the birth timing and when to start (Link, 2011). The partners get to know each one's attitudes towards family planning and contraceptive use (Oyediran & Isiugo-Abanihe, 2002). Inter-spousal communication is the best way for partners to talk about reproductive health, unwanted pregnancies and contraceptive use side effects (Drennan, 1998). Again, communication between spouses increases men's participation in family planning and contraceptive use (Lasee & Becker, 1997; Biddlecom et al., 1997; Omondi-Odhiambo, 1997). However, some men do not feel comfortable to discuss about reproductive health and related issues, sexual related information and these of contraceptive (Drennan, 1998).

Traditional African societies consider that families with high fertility and many members are strong families and then economically and socially rewarded in contrast to modern societies (Palamuleni, 2013). In traditional African societies, children are considered as labor and strength to the family. In this regard, many African societies may resist control of fertility, contraceptive use as well as family planning (Caldwell & Caldwell, 1987). Again, some communities consider the use of contraceptive among partners as a sign of unfaithfulness (Mukhongo, 2015). Thus, a women entering discussions about reproductive matter with her husband is taken unfaithful (Ouma, 2014).

Married women need consent from their husbands for using contraceptive method for family planning (UNPF, 2010). The husband's approval is highly necessary in adherence of contraceptive use in traditional society where the issue of procreation and limiting the number of children is hardly discussed (Nwakwo & E.Ogweri, 2006). However, some husband do not show any interest in contraceptive and finally oppose (Sensoy et al., 2018). Various research findings have shown that contraceptive use is hardly adhered to due to disapproval of the husband, fear of side effects, unavailability and inaccessibility of contraceptives (Gogoi et al., 2017).

The study conducted in Nigeria has stressed that higher polygamous marriages affect modern contraceptive method use negatively (Salami & Oladosu, 2016). In Kenya, it has been seen that there is high unmet need for Family Planning in some areas with polygamous beliefs. The later has significantly influenced the husband's approval to contraceptive use (Mukhongo, 2015). In polygamous societies, men do not easily accept to attend training about contraceptives saying that family planning is the women's matter (Nakirijja et al., 2018). This considerably makes more women learn unilaterally and their desire on contraceptive use does not get materialized

since their husbands do not show any concern. On the other hand, at both community and individual level, women fear social isolation or accusation for using contraceptive without consent by their respective husbands (Hall et al., 2008).

In addition, unmet need for Family Planning Methods use may be challenged by socio-economic factors such as work status, educational level of both spouses, and standard of living (Igwegbe et al., 2009). Whereby poverty is another factor that has led to high fertility in many developing countries (Ocholla-Ayayo, 1997). Poor people with no employment and no money tend to engage in sex for enjoyment and finally get unplanned pregnancy (Ouma, 2014).

Working women by earning cash incomes are valuables in family by their social status. Decisions made by working women are considerable and these women have more control on their health issues and consequently have great control over reproductive decision (Gage, 1995). Clearly, paid women are highly motivated at health issue control, child bearing and rearing which increase their choice in contraceptive methods use. The study conducted in Malawi supported that contraceptive use is also influenced by work status (Palamuleni, 2013). Palamuleni states that women who are not working are 1.26 times less likely to use contraceptives than women who are working.

Moreover, low level of education is another hindrance of contraceptive use. A study by Casterline (edit. 2001) reveals a clear significant relationship between a woman's level of education and the level of contraceptive use (NRCP, 2001). Magadi et al. (2000) noted that education is an alternative means of women to have a social status, self-esteem, self-confidence and self-valuable consideration in household as well as whole society. Thus, education promotes proper decision making in family planning and reproductive use but also termination of pregnancy if found unwanted (Magadi et al., 2000). Actually, educated women tend to marry later, have fewer children and use contraceptive more (Caldwell & Caldwell, 1987). Nakirijja supports this view saying that the more a woman is educated the more likely to make choices on child birth and mostly the use of all reproductive technology including contraception (Nakirijja et al., 2018).

The study conducted in Rwanda also stated that women with secondary or high education were more likely to use modern contraceptive methods compared to women with no education

(Tuyishime et al., 2016). As conclusion, from the above studies, when a woman is not educated, has a lower level status in households, she does not have self-esteem and has little influence in decision making.

2.3.2. ACCESSIBILITY OF FP SERVICES AS DETERMINANT OF UNMET NEED

UNFPA (1996) recommended that family planning programmes should offer a variety of safe, effective, acceptable and affordable contraceptive methods. These contraceptive methods could help women avoid unwanted pregnancies, sexually transmitted diseases and achieve their childbearing goals (Sevil et al., 2006). However, numerous studies have shown that most of determinants of unmet need for contraceptive use are lack of knowledge about contraception (Barman, 2013). And, this lack of information or misinformation originates health concerns or fear of the side effects of contraception, opposition of husbands, other relatives, or lack of self-rule among women themselves (Khan et al., 2008; Igwegbe et al., 2009)

Accessibility to health services involves aspects of geographical location and costs to reach service systems. Thus, it is noted a higher percentage of rural women are less knowledgeable of contraceptive methods than urban women (Mukhongo, 2015). In the study conducted in Kenya, Nakirijja et al (2016) argues that health workers have emphasized that due to the fact that health centers are located far from residents, the most convenient means is radio. So, women with no access of radio or Television could lack information. It was then observed that the majority of women respondents reported inaccessibility to health care systems as a major hindrance to contraceptive use (Nakirijja et al., 2018).

Continuously, many studies have documented that women living in slums generally receive inadequate services for dealing with reproductive health care and lack information to deal with health (Sedgh et al., 2016). Additionally, health professional including health staff are not well trained to provide enough information on reproductive health choice and they do not have enough knowledge on family planning and contraceptive use (Mukhongo, 2015). All these factors regarding inaccessibility, unavailability, unaffordability and poor-quality services in matter of contraceptive use make a great number of rural women lack information or be misinformed and then have to undergo a high unmet need for contraceptive use.

2.3.3. SOCIO-ENVIRONMENTAL FACTORS OF UNMET NEED FOR FP

Socio-environmental factors also play a role to determine the choice by a woman or a girl in use of contraceptive methods. These factors include religion beliefs, friends or colleagues, cultural beliefs of the society in which the women originate, grew up, live or work (Barrett et al., 2013). Cultural and religious beliefs are some of the important factors for consideration in all political, economic and social aspirations in search for sustainable wellbeing (Rees, 2017). Therefore, it is very much relevant to analyse possible linkages between unmet need for Family Planning with both cultural and religious philosophy a certain community lives in. Religion's beliefs have a strong influence on women's choice on contraceptive use methods (Sangi-Haghpeykar, 2006)

Different researches have supported this ideology of influence of religious beliefs in contraceptive use. According to the research conducted in Kenya, Ouma (2014) said that the Catholics believed that all sexual acts were for procreation, while the Muslims said that the Quran states that it is against God's will to use contraceptives. Thus, their believers do not easily welcome use of contraceptives (Ouma, 2014). A remarkable example is the shift towards a large fertility preferences among Muslims in Kenya (Gregson et al., 1999)

Another research conducted in sub-Saharan Africa, revealed that between one-quarter and one-half of 12 women reported that their religion negatively impacts their contraceptive use (Akintade et al., 2011). As Shafiqullah et al. found, some religious leaders have argued that contraception is a sinful act in Islam (Shafiqullah et al., 2016). Nakirijja et al (2016) also found out that the Quran emphasizes giving birth to children as blessing because they are considered to be gifts from Allah. Another study conducted in India stated that more than a half percent among Muslim women are less likely to use contraceptive methods in comparison with their fellow from others religions (Ranjana, 2012). Additionally, studies conducted in less developing countries found out that religious unacceptability, social-cultural beliefs are major obstacles to contraceptive use (Caldwell & Caldwell, 1987; Gregson et al., 1999).

On the other side, the fear of side effects is another strong barrier to contraceptive use. A study based on a review of 51 surveys conducted from 2006 to 2013 in Asian, Latin American, Africa and Caribbean countries revealed two main determinants of unmet need about contraceptive use. These reasons are infrequent sex and the concerns about side effects or health risks of

contraceptive use (Sedgh et al., 2016). Generally, people have perceived modern contraceptive methods as dangerous through their side effects such as pain, weight change, bleeding, mood change, and so forth (Shafiqullah et al., 2016).

Furthermore, there is no doubt that the fact of fearing of side effects on health, women resist on the use of contraceptive methods (Shafiqullah et al., 2016). The study conducted in Morocco noted that misinformation and fear of side effects reduce access to contraceptive use (Westoff & Bankole, 1998). A Bangladesh study highlighted that women who discontinued using injectables had wrong information about side effects and their significance (De Graaf, 1991). So, there is limited choice of contraceptive uses due to contraceptive cost, side effects, dislike and beliefs (Omwago & Khasakhala, 2006)

2.4. THEORETICAL FRAMEWORK OF UNMET NEED FOR FAMILY PLANNING

2.4.1. THEORY OF PLANNED BEHAVIOR (TPB)

Theory of Planned Behavior (TPB) is the successor of the Theory of Reasoned Action which has been originated and developed by Fishbein and Ajzen in 1975 and reviewed by Ajzen and Fishbein in 1985. The theory of Reasoned Action suggests that a person's behavior is determined by their intention to perform the behavior and that this intention is, in turn, a function of their attitude toward the behavior and subjective norms (Fishbein & Ajzen, 1975). This model states that any human behavior is predicted and explained by three main cognitive components which are attitudes (positive or negative feeling of a person in relation to achievement of an action or objective), social norms (social influence), and the intentions (individual's decision do or don't do a behavior). The theory has been identified as health behavior theory and person's behavior is affected by their intention (Ajzen, 1991). This model uses specifically three boundaries factors which are volitional control, intention stability over time and measurement of intention in terms of target, time, context and action.

TPB was introduced as extension of TRA and has been widely applied to the prediction and change of behavior, especially behavior in relation to the use of the technology in human life (Fishbein & Ajzen, 1975). When used, this technology can be a blessing and make life easier and productive when used well. However, it requires skills and proper adoption (Ajzen, 1991). Adoption of that technology has been facilitated by these three variables (attitudes, social norms,

and perceived behavioral control) as predictors of behavioral intentions (Kiene et al., 2014). The following is a pictorial representation of TPB in relation to contraceptive use by Ajzen (2011).

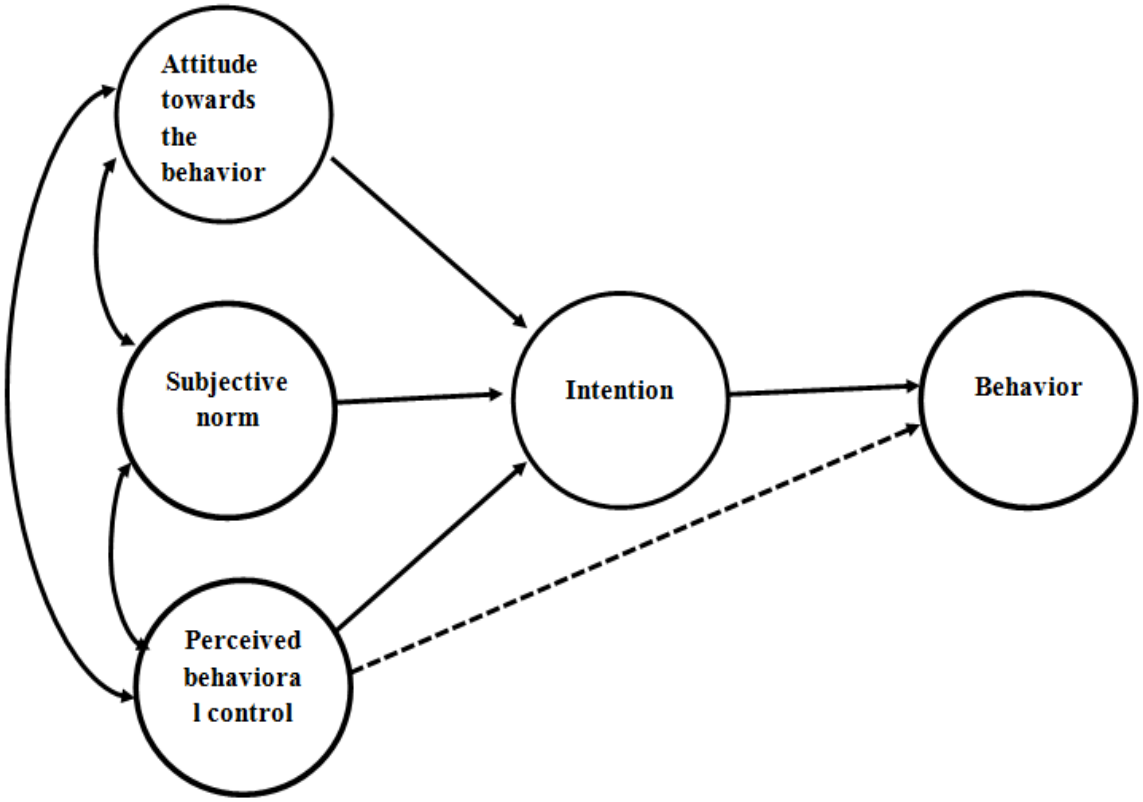

Figure 1: Theory of Planned Behavior

Source: Ajzen (1991). P182

a) Attitudes towards activity

According to Ajzen, attitudes towards activity refer to the degree to which a person has a favorable or unfavorable appreciation and appraisal of the behavioral in question according to the situation or context. It is based on social and personality trait of a person to have a certain intention to perform an activity (Ajzen, 1991). The attitude of person is in relation to his decision with the respect of organizations and institutions in which that person cooperates including church, employment/employer, government or particular individuals with whom a person might interact (Ajzen & Fishbein, 1977). The failure of that attitude to predicted Behavior leads a person to feel not met the need that was desired (Wicker, 1969).

b) Subjective norm

Subjective norm refers to perceived social pressure from the environment in which a person lives, works and spends almost his time which determines and shapes his ability to perform or not perform Behavior (Ajzen, 1991). Ajzen also said that subjective norm are related to the beliefs that a person has depending on what most of the people, peer and colleagues approve or disapprove to be the Behavior and it is a social influence or pressure (parents, spouse, friends, teachers,..) to engage in.

c) Perceived behavior control

Perceived behavior control refers to the way a person perceives how ease or difficult of performing a behavior and it reflects the past experience as well as expected obstacles to meet all along (Ajzen, 1991). Author also argues that this control is based on his own psychological interest that comes from self-evidence, self-confidence and self-efficacy beliefs which influence the choice of activity leading to emotion reactions (Ajzen, 1991). Motivation in perceived behavior control comes from the expectation of success that is also based on probability of success in a given task (Atkinson, 1964 & Bandura et al., 1980).

d) Intention

Ajzen (1991) disclosed that individual intention to perform a given behavior is the first motivation of how hard people are willing to try with all their efforts to succeed and perform behavior. The degree of motivation depends on availability and opportunity of different sources as such time, money, skills and cooperation with others within society (Ajzen, 1985). Intention is based correlation of attitudes, social norm and perceived behavior control (Ajzen, 1991).

The Theory of Planned Behavior (TPB) is the most used framework in studies of behavioral models (Morgan & Bachrach, 2011). It is called a "content-free model of human behavior" (Ajzen, 2011) meaning that it not specific discipline. The main assumption of the TPB is that intention is strong predictor of behavior and this intention is assessed by evaluating general attitudes, beliefs and preferences (Caplescu, 2014). In this theory, behavior is explained by behavioral intention, which is influenced by attitudes towards a specific behavior, subjective

norms (perceived social pressure to perform the behavior) and perceived behavior control (Peyman & Oakley2, 2009). These authors continue to argue that these behaviors are influenced or hindered by both internal and external factors (Daniel et al., 1997)

The TPB has become one of the best important theories to study human health behavior (Ajzen, 2002) and most influential popular theory in human behavior studies. The theory fits this study as it serves in explaining behaviors of women lived experience of failing to meet their need in family planning as a result of the situation in which they live, which is influenced by different determinants. This would serve the study to explore these determinants leading to failure by women of reproductive age (15-49) to delay or limit childbearing, which in turn makes women always have behavior need-failure or behavioral intention of family planning.

2.4.2. THEORY OF PLANNED BEHAVIOR (TPB) IN RELATION TO FACTORS LEADING TO UNMET NEED FOR FP

These determinants of TPB, attitudes towards activity, subjective norm and perceived behavior control are greater influential to the intention towards behavior of FP among women. If the degree of intention is not high, it is difficult to achieve the goal of FP methods use vice-versa.

The attitudes determinant refers to how women receive the information of technology family planning and the degree to which they agree and choose or not choose to use them in family planning. Furthermore, according to attitudes, the more women agree on family planning, the more they increase use of family planning methods; and the more they disagree, the more they reduce their use. Attitudes would be more formed if there was a lived personal experience in a situation that brings the emotions, feelings, and appreciation of a deeper and more lasting experience which in turn influence other people especially parents, peers other people with high social status (Kurniati et al., 2016).

Neatly, in accordance to subjective norms, studies have stated that there is a significant relationship between subjective norms and use of family planning methods through maternal attitudes and intention. The more mother has positive subjective norms, the more she uses Family Planning Methods (Joeliatin et al., 2016). Social pressure and influence from women's socio-environment (mothers, spouse, friends, teachers, peers and friends) lead women to accept and perform the behavior of FP methods use or to fail. As an example, a woman may be more

likely to use contraceptive, if she has positive perception that her husband is supportive to contraceptives use and feels that is able to discuss it with husband, persuade him and use contraceptives (Agus et al., 2019).

Furthermore, perceived behavior control among women's behavior of success in family planning is due to their own psychological interest, personality, self-efficacy and motivation to perform. Their motivation will contribute to great achievement of FP methods performance (Atkinson, 1964). The degree at which they find it ease or difficult to be achieved determines the degree of success. Expectation of success of behavior FP methods use in these women comes from the probability of succeeding at this task (Bandura et al., 1980).

The TPB is a useful theory to understand the use of contraceptive for pregnancies purpose among women. A person could expect the knowledge about the types of contraceptive to be used; however, its evidence of the importance is the knowledge attributes towards the behavioral intention (Fishbein & Ajzen, 1975). Thus, the information in form of related-beliefs is to examine whether for or against contraceptive use behavior and performance.

In relation to TPB, intention is a cognitive representation of someone's readiness to perform a certain behavior or action, individual's choice and decision to do or not to do a certain behavior/action (Fishbein & Ajzen, 1975). This intention will influence that person's motivation to performance. If the intention is good, then the resulting action is good and vice versa (Agus et al., 2019). The mothers who have intention to use Family Planning Methods were more successful compared to mothers who did not have intention to use Family Planning Methods (Agus et al., 2019). The more educated women, the higher income, the more they care a lot about health and the more they have strong intention to use FPM (Mohammed et al., 2014). At another side, family with low number of children have low intention to use FPM and likely to be ineffective (MayiTsonga et al., 2014) .

2.5. CONCEPTUAL FRAMEWORK OF UNMET NEED FOR FP

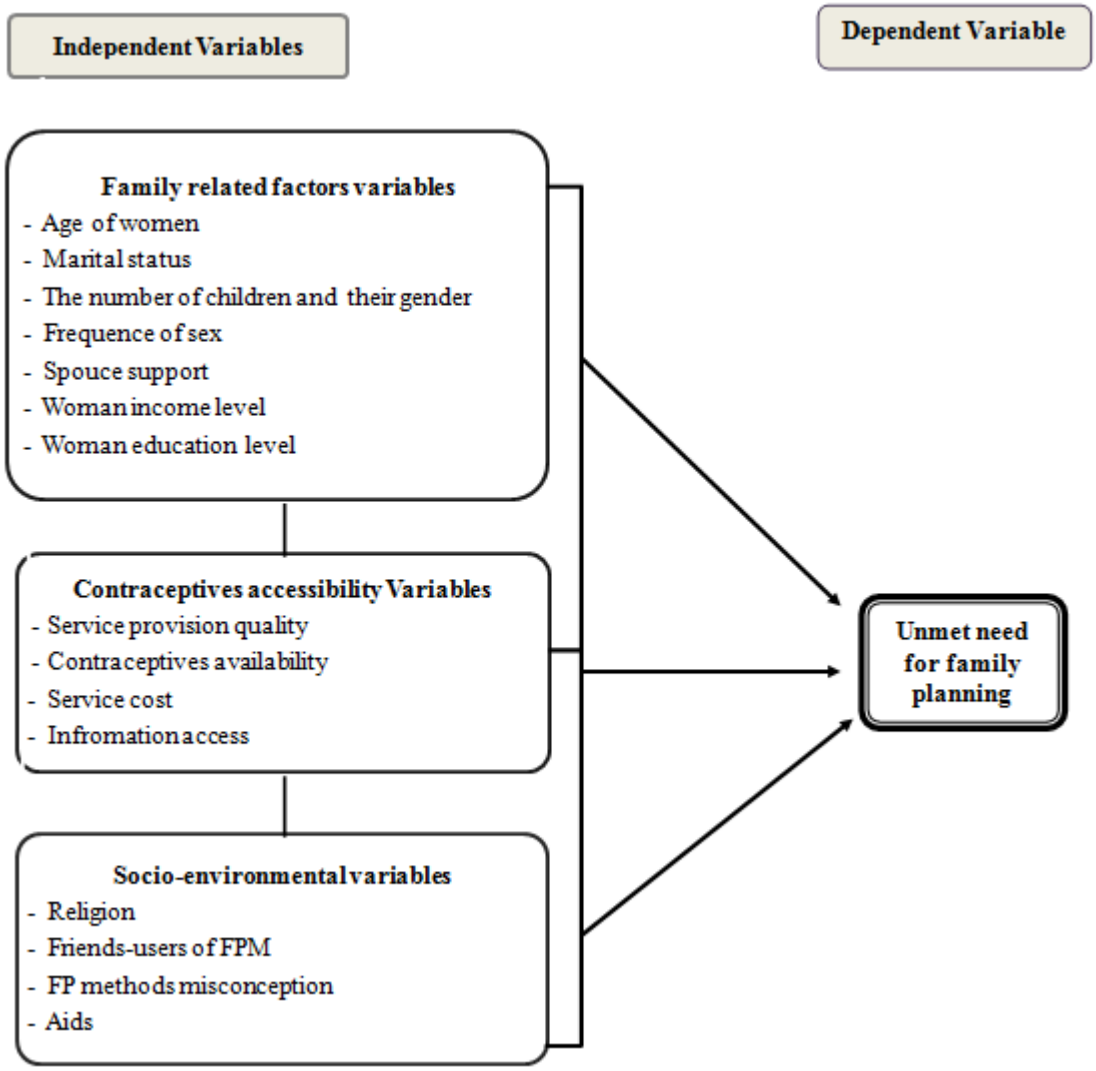

Figure 2: Conceptual framework

Source: The researcher

CHAPTER III: METHODOLOGY

3.1. INTRODUCTION

This section discusses the research design, population of the study, sample size and sampling process, and data collection process and tools. In addition, it talks about data analysis in relation to variables and validity of data collected with ethical consideration.

3.2. DESIGN OF THE STUDY

This study uses a cross-sectional study design. The design is suitable because this type of design is recommended for the population-based studies and it allows collecting data from different individuals at a single point in time, which is the nature of this study (Akhtar, 2014; Levin, 2006). Also, this study design observes variables without influencing them and establishes correlation between these variables (Hemed, 2016). The study has explored the lived experience of participants in the relation to family influence, contraceptives accessibility and socio-environmental factors leading women to failing to timely use or discontinue the use of family planning methods.

3.3. THE STUDY AREA

The study was conducted in Gisagara District, one of the 30 Districts in Rwanda, and it is located in the Southern Province covering an area of 678.9sqkm. It is mainly a rural District subdivided into 13 Sectors: Gikonko, Gishubi, Kansi, Kibilizi, Kigembe, Mamba, Muganza, Mugombwa, Mukindo, Musha, Ndora, Nyanza and Save. It is bordered in the South and East by the Republic of Burundi, in the North by Nyanza District, and in the West by Huye and Nyaruguru Districts. It is headquartered in Ndora Sector, and its urban master plan covers a surface that links three Sectors: Save (Gatoki and Rwanza Cells), Ndora (Cyamukuza and Gisagara cells) and Kibilizi (Kibilizi, Ruturo and Muyira cells) (Gisagara_District, 2018). Gisagara population was estimated at 358,151 people in 2017 with 191,067 (53.35%) female and 167,084 (46.65%) male (NISR, 2018).

Figure 3 shows the map of Gisagara District with the Sectors (Save, Nyanza and Mugombwa).

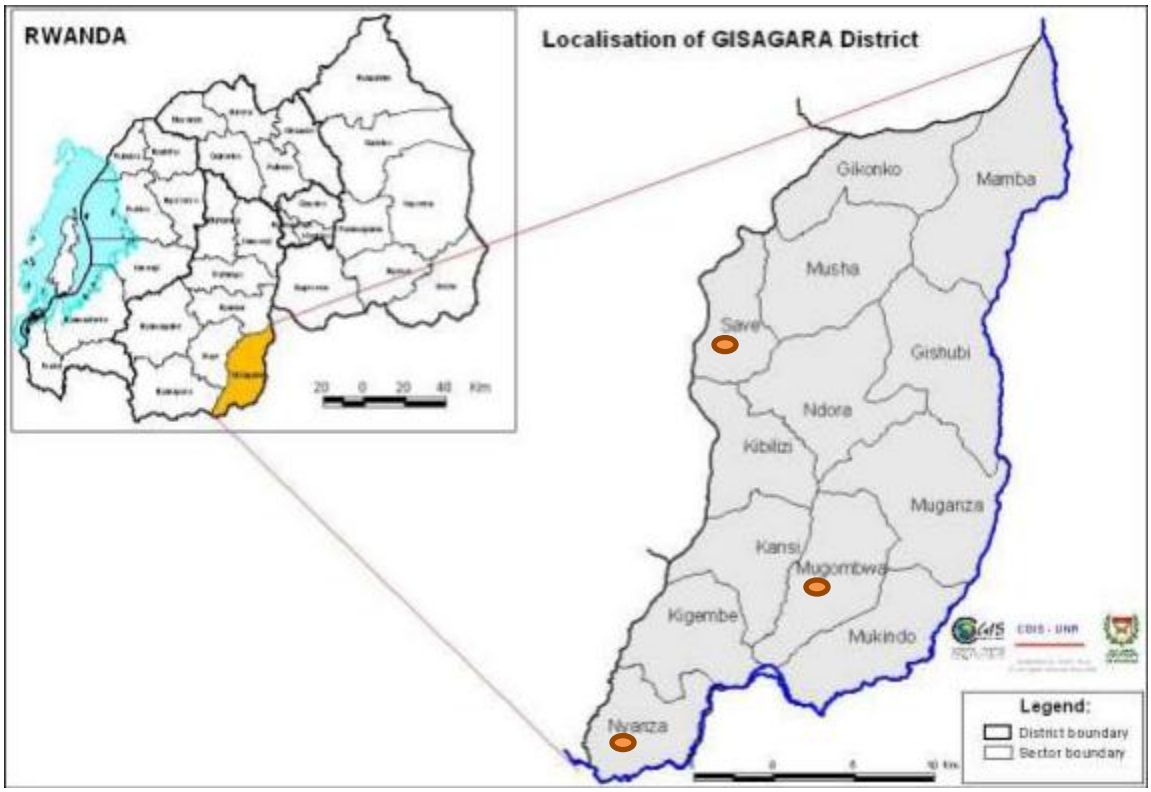

Figure 3: Map of Gisagara District

Source: Gisagara District archive

The figure 3 shows where Gisagara District is located on the country's map. The detached figure demonstrates Gisagara District with its 13 Sectors on the map. The sampled Sectors in this research are identified with round dots added for quick localization. Save at the middle west of Gisagara District bordering Huye District, Mugombwa in the southern part of the District and bordering with Muganza in the north and east, Mukindo in the south-east, Burundi in south, Kigenbe in the south-west, Kansi in the west and Kibirinzi in the north-west. At another side, Nyanza Sectors is located at the extreme south end of Gisagara District bordering Burundi and Nyaruguru District in the south-west.

3.4. POPULATION OF THE STUDY AND SELECTION OF RESPONDENTS

The study was targeting both married and unmarried women who were in reproductive age (15-49 years) and who have got at least one unplanned pregnancy. The study respondents were selected from three Sectors; Save, Mugombwa for married and Nyanza for umarried, and all living in Gisagara District.

Unmarried women were from Save Sector based on its significant number with the average of more than 70 in two years (June 2019-May 2021) (*National Women Council Sector Archive, May 2021).* These unmarried women were in the cooperatives in which they make weekly forum/assembly usually. On the other side, married women were chosen from Nyanza and Mugombwa Sector. Nyanza Sector was selected because it is one of the poorest Sectors in Gisagara District according to the recent data by the National institute of Statistics of Rwanda (NISR, 2018). The reason of choosing this Sector was because the family size, especially unplanned pregnancy, affects mostly the level of family development. Mugombwa Sector, on the other hand, was chosen because of its lowest Family Planning rate with 41.2% among all Gisagara District Sectors compared to Agahabwa/Kigembe, Kansi, Musha and Kibilizi which have 64.8%, 64.7%, 64,2% and 63.5 % respectively (*Gisagara Family Planning Report*, 2020). . Targeting both married and unmarried women, the study wanted to balance information.

The population of this study was selected with purposive sampling technique. With this technique, the population to contact and to ask was chosen with the credibility that they held reliable information to feed the study.

3.5. SAMPLE SIZE AND SAMPLING PROCESS

The size of the sampling frame in terms of the exact number of potential respondents was hardly determined because there was no proper registry for such women either at the Sectors, District offices or at the health clinics. Only, assisted by the Head of health centers and through family planning, prenatal and postnatal service providers, a list of present married women to be asked at the health centers was extracted/made from total women who attended Health center within two years (June 2019-May 2021). Their number was 81 married women. For unmarried women, the total number and the information was kept confidential but assisted by CHW, Sector FP officer

and National Women Council officer, I considered all 50 available respondents from their respective cooperatives.

Inclusion criteria: The selected women for this study had to fulfill the following inclusion criteria:

(i) To have had unwanted/unplanned pregnancy

(ii) To be in the ages of 15 to 49

(iii) To be living in the Sectors of Save (unmarried), Mugombwa and Nyanza (married)

The sampling process generated a total of 131 respondents, including 81 married women and 50 unmarried women. They were distributed in the different Sectors as shown in Table 1.

Table 1: Sample size

	Sample		
Sector	Married women	Unmarried women	Total
Mugombwa	53	0	53
Save	0	50	50
Nyanza	28	0	28
Total	81	50	131

Source: The researcher

3.6. DATA COLLECTION PROCESS

In data collection process for married, Heads of Mugombwa (in Mugombwa Sector) and Kigembe (in Nyanza Sector) health centers were contacted firstly as gate keepers. By contacting them, personal introduction and the rationale of the research as well as the sampling choice was made and then I handed to them the authorization document issued by the University. Thereafter, a ‘go ahead’ was received to collect data in these sites and administrative support provided to reach the staff in charge of antenatal, postnatal, family planning and counseling services.

Therefore, data collection from married women was conducted with assistance by family planning officers, antenatal and postnatal service providers. These staff members assisted in identification of women who have got unwanted or unplanned pregnancy. The identification was conducted as they came to get services at the health centers and a list was produced to help in contacting them. I talked to them individually with a brief introduction on the reason of the

research and then the questionnaires and pens were provided for them to respond to research questions. Within all five working days (Monday to Friday), in order to ensure that all targeted women are met throughout the service hours, I used to reach at health center at women's arrival time around 8:00 AM. I was helped by assistant in giving and collecting questionnaires. Those who know to read and write responded without any assistance but for those who do not know to read and write were helped to read and they could in turn choose what their correct answer is and then I recorded on their behalf. They were put in a free mood and comfortable place for them to genuinely respond.

In collecting data from unmarried women in Save Sector, the same approach as for married women was used to collect information, only that it was found more successful and easier to reach these unmarried women in their weekly forums or assemblies and few others in their families. So, many unmarried women were contacted in mass through their cooperatives in their weekly forums or assemblies within their respective times and places guided by the National Women Council officer at Sector level. Those that could not be found there were reached via targeted home visits in their families. Because this group is homogeneous, after being introduced by the National Women Council officer, then I explained the purpose of research, gave questionnaires and pens to participants to respond and submit back on completion. For those who do not know to read and write, the same procedure to read for them and assistance to record responses was resorted to as also done for married women. All of respondents were comfortably seated and in a calm place for them to independently respond.

3.7. DATA COLLECTION TOOLS

A questionnaire developed by the researcher had a list of both closed and semi-closed questions. In front of questions, there were boxes where respondents were requested to check and tick (with **V** symbol) what matching with the response. Also, some blank spaces were reserved to type a response (See questionnaire in annex). At each specific objective of the study, a list of all possible responses to research questions was explored in line with the main study objective.

3.8. STUDY VARIABLES AND MEASUREMENTS

3.8.1. INDEPENDENT VARIABLES

a) Family related factors: age of woman, marital status, the number of children and their gender, infrequent sex, spouse support, family wealth and women income level and women education level
b) Accessibility of contraceptives: access to information, contraceptives availability, service cost and service provision quality.
c) In socio-environment variables: Religion, FPM misconception, friends and peer and aids.

3.8.2. DEPENDENT VARIABLE

In this study, the dependent variable, also called outcome variable, is getting pregnant while one did not want it then or later.

3.9. DATA ANALYSIS AND REPORTING

To respond to the research questions, through SPSS tool, cross tabulation with frequencies and percentages were used to present and analyze the data collected. Cross-tabulation technique helped to reveal basic information on variables and highlight relationship between them towards research objective. Statistically, frequencies and percentages of variables were analyzed as presented in cross-tabs.

The objective one aimed to determine family related factors potential to influence the use of contraceptives and presenting data in a table would indicate husband involvement level, support and concern, gender/sex preference in family members as the impact on contraceptive use. The second objective was to evaluate how accessibility of contraceptives and information, then presented data would indicate the level of awareness of the place, cost and source of information as the impact on taking decisions to use contraceptives in Gisagara District. The third objective was to examine socio-environment factors and the table would show how religion, friends and peers impacted in contraceptive use. The fourth objective was to explore how socio-economic factors and data presented would disclose how education and family wealth have impacted negatively of contraceptive use among Gisagara women.

3.10. VALIDITY AND RELIABILITY

For validity assurance, the research instrument/questionnaire was given to academicians and research supervisor for their potential inputs, which helped to detect and remove possible confusions to be able to collect required data towards research objectives. In addition, a pilot study was made; the questionnaire was tested via two respondents without any assistance before real data collection kick off. Then after, the responses gotten were checked to confirm whether the information collected is accurate or whether there is no confusion on the side of respondents in order to be able to finally confirm or rectify questions.

The reliability of the study is based on its pretest and validation. A part from the comments and suggestions from respondents in pretest; the inputs from academicians and research supervisor made the research instrument more valid, clearer, understandable and easy to fill. This is finally what led to effective data collection and interpretation towards the research questions and the study objectives attainment. Therefore, our findings could be strongly reliable as the methodology used had been scientifically scrutinized before data collection was conducted.

3.11. ETHICAL CONSIDERATION

Due to how the topic of the study is sensitive to people's life, some respondent could fear and resist to provide necessary information. As mitigation, a good introduction and mood was made in a respectful manner, safeguarding their rights and respondents kept anonymous as they were intentionally agreed not to provide their names or any contact. Again, it was by free consent and voluntary to participate in this study after explaining the purpose and use of the research.

CHAPTER IV: DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0. INTRODUCTION

This chapter presents summary of study findings, analysis and interpretation of data collected from a sample of 131 respondents.

4.1. RESPONDENTS SOCIO-DEMOGRAPHIC IDENTIFICATION

The study respondents were identified according to the Sector of residence especially Save for unmarried (38.2%), and Nyanza (21.4%) and Mugombwa (40.5%) for married women. Majority of women were from Mugombwa Sector and 21.4% from Nyanza Sector. Mugombwa Sector, chosen before because of its low level of family planning in Gisagara District, also had a big number of respondents. Because health services (at health centre) in this Sector are under catholic religion supervision which obviously does not support use of industrial drugs for FP could be the reasons of such big number of respondents. Other women reported to be unmarried at 38.2% were from Save Sector, which women were defamed to be prostitutes or unfaithful, the fact that they did not want to use contraceptives as well as they were not supposed to be pregnant. The study has integrated both married and unmarried because it aimed to provide a balance or get the whole information about reasons that lead women to get unwanted pregnancy, be married or not.

In addition, age, education level, religion, 'ubudehe' category, experience in using contraceptives, the time of sleeping with a man and number of children per woman were associated to their identification as presented in table 2.

In this study, a big number of respondents was found in the category of 15-24 age group (40.5%). This number of respondents is big because it is the nearer age of marriage where women produce more as one of the fruits or purposes of marriage and it is around this age group whereby women face high rate of unwanted pregnancy. The number of respondents continued to decrease as the age increases respectively from 36.6% (25-34) to 22.9 % (35-49). The older women get, the lower their desire of reproduction, hence decrease of unmet need for Family Planning too.

Table 2: Respondents identification

Variables	Category	Unmarried		Married		Total	
		Freq.	%	Freq.	%	Freq.	%
Age	15-24	36	27.5	17	13	53	40.5
	25-34	12	9.2	36	27.5	48	36.6
	35-49	2	1.5	28	21.8	30	22.9
Education level	None	4	3.1	9	6.9	13	9.9
	Primary	36	27.5	20	15.3	31	23.7
	Secondary	6	4.6	13	9.9	19	14.5
	University	0	-	5	3.8	5	3.8
	Tertiary	4	3.1	3	2.3	7	5.3
Religion	Catholic	37	28.2	46	35.1	83	63.4
	Protestant	2	1.5	9	6.9	11	8.4
	Pentecost	10	7.6	21	16	31	23.7
	Islam	1	0.8	2	1.5	3	2.3
	Adventist	0	-	3	2.3	3	2.3
Ubudehe Category	Category I	25	19.1	15	11.5	40	30.5
	Category II	21	16.0	51	38.9	72	55.0
	Category III	4	3.1	15	11.5	19	14.5
Contraceptive using experience	Yes	35	26.7	67	51.1	102	77.9
	No	15	11.5	14	10.7	29	22.1
Times of sleeping with a man	Always	0	-	6	4.6	6	4.6
	Often	0	-	47	35.9	47	35.9
	Sometimes	2	1.5	18	13.7	20	15.3
	Rarely	48	36.6	10	7.6	58	44.3
Number of children	1	28	21.4	0	-	28	21.4
	2	17	13.0	37	28.2	54	41.2
	3	4	3.1	28	21.4	32	24.4
	4	1	0.8	8	6.1	9	6.9
	5	0	-	2	1.5	2	1.5
	6	0	-	4	3.1	4	3.1
	7	0	-	2	1.5	2	1.5

Source: The researcher

Education was another significant variable in this study by the fact that the more literate the more a woman becomes interested in knowing more and cares about life and health issues. The study revealed that a big number of the respondents who did not reach over primary education was higher at 76.3%, with no education at all counting 9.9% and only primary education at 66.4%. The number of women who attained high education was lower (23.7%) with 14.5% secondary, 3.8% university and 5.3% TVETs. Having the majority of respondents in lower level of education, it is clear that women education influenced them for taking sound decision in FP

methods use. The fact that women have low level of education, they were not knowledgeable enough on contraceptive products, varieties and use but relied on information from others (users, friends, peers and colleagues) which made them getting unwanted pregnancies.

In this study, respondents reported to be from different religion affiliation especially 63.4% catholic, 23.7% Pentecost, 8.4% Protestant, 2.3% Islam and 2.3% Adventist. These religions play a big role in contraceptives uses; they consider it as a sin in God's will of procreation. For some like catholic which accepts FP methods, they only accept natural based methods in contrast to industrial contraceptive drugs use for family planning. People perceive religious teachings important in shaping their life and behaviors and mostly these teaching are against these contraceptive uses. People believing in these religions do not accept contraceptives while some accept only natural based method whose application require rigorous knowledge, attention and unfaltering follow up. So, together with their level of education, women do not manage to apply natural based methods of FP successfully and they get unwanted and unplanned pregnancies.

Economically, 112 (85.5%) over 131 respondents reported to be from lower income with 'ubudehe' category I and II. The table shows that 30.5% women were from category I, 55.0% category II and only 14.5% from category III. Meaning that majority of respondents in the study were from poor families (Category I&II). This level of income negatively influences women in choosing and uptaking family planning methods and respect their instructions. Most of cases, women are too busy always in searching of the household livelihood and have difficulties to follow up family planning programs and claim the loss of time and transport payment. Also, women with lower living conditions said that they prefer getting pregnant again and again to benefit continuous support provided (aids) to either pregnant or lactating mother and for them to earn a daily living.

To know whether respondents have ever used contraceptives, the study revealed that 102 (77.9%) women have been users of contraceptives and 29 (22.1%) did not use contraceptives in their life. The results showed that even though they have been using contraceptives, they got unwanted pregnancy. Some of them reported reasons to get unwanted pregnancy despite contraceptives trial include their misuse and discontinuity due to misconceptions from relatives, bodily side effects, use of unsuitable methods, fear and little knowledge. As a result, women continued to have unmet need for FP.

About frequency of sleeping with a man, 44.3%, of the respondents have declared that they rarely slept with a man, 35.9% often, 15.9% sometimes and 4.6% always. Majority of these women who slept with men rarely are unmarried who are prostitutes or unfaithful. They declared to not use contraceptives because they found not necessary to use contraceptives beyond its negative effects since they do not live with husband always. In other words, unwanted pregnancy also occurs to unmarried women who do not often stay with men because they rarely have a fixed plan for family planning as they do not stay with men regularly too.

Then, according to the number of children, minimum number of children per women was 1 while maximum was 7 and majority of these women had 1-3 children. This means that unmet need for FP in one child women was found in unmarried women who have declared that they found it unnecessary to use contraceptives while they didn't live with a man. Another remarkable number of respondents had between 2 and 3 children where, apart from unmarried, married women had unmet need of spacing but did not use contraceptives. The reasons were that married feared side effects of contraceptives in their bodies while they were still in need for another child or a given child sex especially boy as shown by the study results. At another side, majority of these who have more than 5 children have unmet need for limiting but either their body rejected drugs, feared side effects or have religious beliefs of not using contraceptives.

4.2. FACTORS LEADING TO UNMET NEED FOR FP IN GISAGARA DISTRICT

4.2.1. FAMILY RELATED FACTORS POTENTIAL TO INFLUENCE DECISION OF NOT USING OF FPM

The study respondents have reported different family factors which influence them in taking decision to use of contraceptives. These factors are related to husband's involvement in decision about family planning and its methods. Women's parents and in-law family were of the great impact in FPM basically when it comes the matter of the need of child sex and the number of children. Also, women themselves had their own reasons preventing them to use FPM.

The table 3 describes husband's involvement in contraceptive use as one of family related potential factors. The study reveals that man's involvement was strong in accompanying women for antenatal services at 56.9%. This percentage was high because women were required to be accompanied by husbands while they were going to get antenatal service as obligation. But for

other services where it was not a must, husbands took their children to vaccination services at 26.5% only while 67.2% of husbands did not. In 'umugoroba w'ababyeyi' husbands attended 38.2%, not attended 15.3% together with indifference of 46.2% while attendance in 'Ubusugire bw'ingo', husbands' participation was limited at 4.6%, not participated at 31.3% and indifferent at 35.8%. This limited level of husbands' involvement in FP programs hindered their wives to apply FPM successfully.

Table 3: Family factors

		Unmarried		**Married**		**Total**	
Variables	**Category**	Freq.	%	Freq.	%	Freq.	%
Husband ever accompanied women in antenatal service	Yes	16	12.2	75	57.3	91	69.5
	No	34	26.0	6	4.6	40	30.5
Husband ever took kid to vaccination	Yes	10	7.6	33	25.2	43	32.8
	No	40	30.5	48	36.6	88	67.2
Husband ever attended 'umugoroba w'ababyeyi'	Yes	4	3.1	16	12.2	20	15.3
	No	21	16.0	29	22.1	50	38.2
	I don't know	25	19.1	36	27.5	61	46.6
Husband ever attended 'ubusugire bw'ingo'	Yes	0	-	6	4.6	6	4.6
	No	15	11.5	26	19.8	41	31.3
	I don't know	28	21.4	16	12.2	47	35.9
Extent of concern of contraceptive use with husband	He is not concerned	13	9.9	39	29.8	52	39.7
	He is concerned strongly	14	10.7	34	26.0	48	36.6
	I don't know	23	17.6	8	6.1	31	23.7
Family reasons preventing from use of contraceptives	I fear that my husband may not support	3	2.3	21	16.0	24	18.3
	I still need a boy	1	0.8	23	17.6	24	18.3
	I still need a girl	2	1.5	13	9.9	15	11.5
	My husband still need a boy	0	-	12	9.2	12	9.2
	My in-law family still need a boy	0	-	5	3.8	5	3.8
	My in-law family still need a girl	0	-	1	0.8	1	0.8
	My husband comes home rarely	2	1.5	9	6.9	11	8.4
	I am not living with a man	26	19.8	2	1.5	28	21.4
	I am ashamed to take contraceptives	6	4.6	1	0.8	7	5.3
	I don't have time to go to take contraceptives	0	-	13	9.9	13	9.9
	No tangible reason in use contraceptive	0	-	2	1.5	2	1.5
	Contraceptives negatively affected my body	13	9.9	22	16.8	35	26.7
	My own reasons	22	16.8	28	21.4	50	38.2

Source: The researcher

At another side, the extent to which husbands showed their concerns or interest about contraceptive use was in three categories. 3.6% husbands were strongly concerned with FP and methods while a big percentage (39.7%) of husbands were not concerned with contraceptive use

which was negatively affecting women from use of contraceptives. Most of these husbands were opposing contraceptive use. In addition, 23.7% of husbands were indifferent in matter of FP methods which created ambiguity in women to take decision of contraceptives use alone.

Unmet need for family planning was highly influenced by potential family related factors. Among other factors, respondents revealed the need of boy sex is a key influential factor at the rate of 31.3% (18.3% of which self-influenced, 9.28% influenced by husbands and 3.8% by in-law family) which leads women to get unwanted pregnancies. On the other side, women still needed girl child at 11.5% together with in law family at 0.8%. Thus, when there was still a need of a child sex, women need for contraceptive use did not get successfully materialized. In this study, the need of child boy significantly influenced women to have unmet need for Family Planning.

In addition, women reported that their bodies have been negatively affected by contraceptives at 26.7% which made them stop the use of contraceptives. At 21.4% women said that they did not live with a man while 8.4% women reported that their husbands used to come home rarely, which made them to find it not necessary to use contraceptives. This has been declared strongly by unmarried women. Another factor which has been revealed by women is fear (18.3%) that their husbands were not supporting contraceptive use because they did not converse with them on that matter. Consequently, women were reluctant to use contraceptives and finally get unwanted or unplanned pregnancy.

Again, women said that they did not have time to go to take contraceptives at 9.9%; others found that there was no tangible reason to use contraceptives at 1.5% while 5.3% of women said that they felt ashamed to take contraceptives. In addition, women said that they did not take contraceptive on their own reasons (38.2%). Thus, women have got unwanted pregnancy because they found no time to go take contraceptives, did not find tangible reasons in their use or felt ashamed to be seen taking or using them. By their own reasons also women did not use FP methods and ended up having the unmet need for FP.

4.2.2. FACTORS RELATED TO ACCESSIBILITY OF CONTRACEPTIVES

This study targeted accessibility of contraceptives in line with various information that respondents have about contraceptives especially awareness on cost, affordability, place, what they lose while going to get contraceptives and even the blames they had in using FPM.

In terms of knowledge about contraceptives, all 131 respondents (100%) disclosed that they were aware of the place where to get contraceptives. Among all women, 66.4% knew that contraceptives are found from community health officers (health center) while 58.0% knew that contraceptives are found from community health workers. Only 1.5% knew that they could get them from other places especially pharmacy. This has shown that all women were aware of the place where to get FP services and even providers. To mean that it was not a reason of not using FP methods.

Table 4: Accessibility of contraceptives

Variables	Category	Unmarried		Married		Total	
		Freq.	%	Freq.	%	Freq.	%
Respondent knows the place where to get contraceptives	Yes	50	38.2	81	61.8	131	100.0
	No	0	-	0	-	0	-
The place to get contraceptives known by respondent	From CHW	33	25.2	43	32.8	76	58.0
	From CHO	27	20.6	60	45.8	87	66.4
	Other place	0	-	2	1.5	2	1.5
Respondent knows that is allowed to take any FP contraceptives	I know	48	36.6	78	59.5	126	96.2
	I heard but forget	0	-	1	0.8	1	0.8
	I am not sure	2	1.5	2	1.5	4	3.1
Respondent knows that contraceptives are free	I know	45	34.4	75	57.3	120	91.6
	I don't know	4	3.1	2	1.5	6	4.6
	I heard but forget	1	0.8	2	1.5	3	2.3
	I am not sure	0	-	2	1.5	2	1.5
Where respondent gets information about contraceptives	At health center when I go for antenatal service	12	9.2	68	51.9	80	61.1
	At health center when I go for vaccination	20	15.3	54	41.2	74	56.5
	From friends and relatives	5	3.8	16	12.2	21	16.0
	Media	3	2.3	2	1.5	5	3.8
	From CHW	25	19.1	24	18.3	49	37.4
What respondent loses while she is going to take contraceptives	I lose time	19	14.5	33	25.2	52	39.7
	I lose money for transport	10	7.6	16	12.2	26	19.8
	I lose money that I pay for product	0	-	1	0.8	1	0.8
Respondent missed a type of product	Yes	6	4.6	10	7.6	16	12.2
	No	44	33.6	71	54.2	115	87.8
What respondent blames about contraceptives	There is a long line	2	1.5	8	6.1	10	7.6
	Service is provided by children	2	1.5	1	0.8	3	2.3
	Service is provided by old people	5	3.8	2	1.5	7	5.3
	Service is provided by men	0	-	7	5.3	7	5.3
	There is poor customer care	2	1.5	0	-	2	1.5
	Service provider is sometimes absent	6	4.6	19	14.5	25	19.1

Source: The researcher

In this study, among 131 respondents, 96.2% of women were aware that they were allowed to take contraceptives, 0.8% did not know that they were allowed to get contraceptives and 3.1% declared that they were not sure if they were allowed. So, almost women knew that they were allowed to take contraceptives and this was not the leading factor in unmet need for family planning.

To know if women were aware whether contraceptives were given free of charge, 91.6% of women declared that they were aware, 4.6% did not know, 2.3% have heard but forgot while 1.5% were not sure. This shows that there was insignificant influence of awareness that contraceptives are accessible free of charge because almost all women were aware.

Respondents disclosed that they get information about FP methods from different sources such as health center when they go for antenatal service (61.1%) or when they go for vaccination (56.5%), from friends and colleagues (16.0%), from media (3.8%) and from CHWs (37.4%). For the matter of source of information, women have got different varieties of sources and they had enough access to information about FP methods. Thus, access to information was not among the factors leading women to having unmet need for FP.

On the other side, respondents were not pleased by the loss they get going to take contraceptives. They claim that they lose the time, transport cost and product payment at 39.7%, 19.8% and 0.8% respectively. This loss discouraged women to use contraceptives; which, in turn, leads to unmet need for Family Planning.

About accessibility of contraceptive services, women criticized contraceptive service providers who were sometimes absent at the rate of 19.1% when they went to look for service while 12.2% was the missing of the type of product they preferred. Missing these products was due to unavailability of the needed products at the site in the time. Service providers were criticized to be men at 5.3%, to be old people at 5.3% and to be children at 2.3% and this made women not feel comfortable to go to take contraceptives till they get unwanted pregnancy. At another side, 7.6% of women said that there was a long queue which required them to spend the time waiting for a service while other 1.5% said that there was poor customer care in service provision. Association of lack of preferred type of product, long queues, poor customer care and loss of time discouraged women to got to take contraceptives and ended up getting unmet need for FP.

4.2.3. WOMEN SOCIO-ENVIRONMENTAL FACTORS LEADING TO DECISIONS OF NOT USING ANY METHODS OF FP

Respondents highlighted some socio-environment related reasons preventing them from using contraceptives. On top, there was 38.9% of the influence of information from women who have used contraceptives and reported that contraceptives have side effects. Moreover, religion

influenced use of FP methods at 38.2%. Most religious teachings did not support FP methods use especially industrials drug use, then because people believed strongly in teachings from their religions and trust in God's will, and followed religious team line. In addition, getting information on side effects from contraceptives users and friends, women resisted to apply FP methods and ended up remaining with unmet need for FP as stated in the following table.

Table 5: Socio-environmental factors

		Unmarried		Married		Total	
Variable	**Category**	Freq.	%	Freq.	%	Freq.	%
Socio-environment main reasons preventing use of contraceptives	Religion	10	7.6	40	30.5	50	38.2
	Friends	1	0.8	5	3.8	6	4.6
	Contraceptive users	16	12.2	35	26.7	51	38.9
	Influence of aids	8	6.1	13	9.9	21	16

Source: The researcher

Moreover, women declared to be influenced by external aids they were getting (16.0%). These aids were in terms of money, shishakibondo, clothes, milk, domestic animals provided to them when pregnant or lactating with under 2 years child. When women realized that they were no longer eligible to receive the aids (2 years after birth), they willingly stopped to take contraceptives in order to qualify and reget this support which lead many of them to have unmet need for FP.

4.3. DISCUSSION OF FINDINGS

a) Family potential influence in unmet need for FP

Women age played a significant role in FPM use where younger women (15-24 years of age) and old women (35-49 years of age) tend to have high unmet need for FP. Again, findings have revealed that the women social status in terms of income has influence on the use of contraceptives. In fact, in health issues decision making, working women's decisions are more valuable. Decisions made by women playing a significant role in income generation are considerable and these women have great control over reproductive decision (Gage, 1995). On the other hand, poor women with no employment tend to engage in sex as enjoyment or as one of

the way to get what can help them satisfy their basic needs and finally get unplanned or unwanted pregnancy (Ouma, 2014).

In this study, the majority of respondents were in Ubudehe Category I and II (85.5%) and some of respondents stated that they did not have time to go for contraceptives services (over 18%) because they were too busy searching for daily livelihood while 39.6% stated that they lose time and 20.6% claim loss of financial means. So, this proves that they did not think big on their health issues and family planning as effect of their socio-economic hindrances, hence little use of contraceptives. The study conducted in Malawi have got similar findings that working women with satisfactory income use FPM more than non-working and less earning women (Palamuleni, 2013)

Moreover, education level of women was associated with unmet need; in fact, the majority of respondents in this study did not reach over primary (76.3%). Magadi et al (2000) stated that women level of education influences them in terms of confidence, self-esteem and self-valuation. Likewise, Nakirijja (2018) said that the more a woman is educated, the more she makes sound choice in child birth through reproductive technology control. The same was also found in Rwanda. According to the study by Tuyishimire et al (2016), it was revealed that women with secondary and higher education were more likely to use FPM compared to women with no education.

All along this study, the findings showed that women have been influenced in family planning methods use due to their spouses, mother and in-law family and the sex child preferences over 30%. Also, influencing factors including partner's approval, family size and child sex preferences, and women's own reasons were identified before by Machiyama et al., (2017). Women feared to use FPM (18.3%) mostly due to rare conversation about the matter of FP with their partners while, in turn, communication between spouses was a result of men's participation in FP and contraceptive use (Lasee & Becker, 1997). Also, married women need consent from their husbands for using contraceptive method for family planning (UNPF, 2010). In addition, women who did not regularly live with men (42.7%) and those who rarely slept with men (45.3%) tended to have infrequent sex and consequently did not did not use contraceptives. This was also observed by Sedgh et al., (2016) that among the reasons of non-use of FPM there is infrequent sex.

TPB considered all these family factors as subjective norms which shaped women's attitudes because as long as a woman had a positive perception that husband was supportive to FPM, she felt free to discuss with him, persuaded and used these methods successfully (Agus et al., 2019). Thus, emotions, feelings and appreciations were in relation to information received (Kurniati et al., 2016). Again, for these women who did not use contraceptives on their own reasons, it is said their self-efficacy and motivation contributed to great probability of success (Bandura et al., 1980).

b) Accessibility of contraceptives

In this study, It was surprising that all 131(100%) respondents had information on FPM but finally faced unmet need for Family Planning. However, several studies have shown lack of knowledge about contraception is one of the most of determinants of unmet need for FP (Barman, 2013), which was not the case in this study. The factors such as unavailability, unaffordability, poor quality service have been found to have significantly hindered the respondents in use of FPM. The same findings were also revealed by (Nakirijja et al., 2018)) in the study conducted in Uganda.

Other factors found in the present study are lack of some preferable products (12.2%) and absence of service providers (19.1%) which reduced the intention to use family planning methods (TPB). Within these findings, the surprising information was that the gender of service provider was an influential factor; women discontented the fact that the available service provider to them was a male in one of the Sectors visited. This made some of them reluctant to go to take contraceptives.

c) Socio-environmental factors

The women's attitudes, motivation and intention to use FP technology-based methods were influenced by religious affiliation, beliefs and teachings at 38.2% and by friends/peers and colleagues users of contraceptives at 38.9%. This falls in line with view that the successfulness of FP technology-based methods are influenced by women's attitudes, motivation and intention (Barrett et al., 2013). The same was also confirmed by the study conducted from Sub-Saharan Africa (Akintade et al., 2011) in consideration of information from women's friends about contraceptives side effects and misconception. Moreover, the similar findings in this matter were

from Kenya (Ouma, 2014), Asian, Latin America and Caribbean Countries by Sedgh et al. (2016), in Morocco by Westoff & Bankole (1998), and in Bangladesh by De Graaf (1991).

In socio-environment factors, what was surprising was finding that women did not use FPM because they did not want to lose the aids they get when pregnant or lactating (16%). They consequently prefer to discontinue the use of contraceptives to get pregnant and benefit the support.

CHAPTER V: CONCLUSION AND RECOMMENDATIONS

5.0. INTRODUCTION

This chapter gives the summary of major study findings, draws conclusion and makes appropriate recommendations for possible interventions in reducing unmet need for family planning in rural Rwanda especially in Gisagara District. It also highlights suggestions to enlighten further studies by other researchers in a way to address issues related to FP methods use among women.

5.1. SUMMARY OF THE STUDY

The study was undertaken to examine the factors leading to unmet need for Family Planning in rural Rwanda, using Gisagara District as a case study. The researcher discussed the topic through different literature woks from various people guided by research objectives, TPB as theoretical framework and conceptual framework. These theories and concepts were in line with socio-demographic variables and family related potentials, accessibility of contraceptives and socio-environment factors leading to unmet need for FP. In methodology, study population were purposively sampled from three Sectors Nyanza, Mugombwa and Save. Findings from the study were analyzed in line with conceptual framework with cross tabulation and frequencies data analysis extracted from SPSS.

In this study, a big number of respondents (40.5%) were in the age group of 15-24 and unmet need reduces as the age of reproduction also elapses. The factors influencing unmet need for Family Planning were found to include lack of support from the husbands either not because they behave not concerned with contraceptive use (39.7%) or indifferent (23.7%), the need for child boy with 31.3% cases by women themselves and then by husbands and/or in-law families. Also, the experience of side effects (26.7%) was another reason of non-use of contraceptives while the rest was due to lack of decision making at an individual level especially for those who thought they did not need to choose use of contraceptives because they were not living with a man (21.4%). On the other side, lack of dialogue between the women and the man on family planning methods choice was another hindrance in family planning as 18.3% women confirmed that they feared to use contraceptives because they did not talk with their husbands). Again, respondents said that they did not use contraceptives by their own reasons (38.3%). Particularly, unmarried

women disclosed that they did not find it necessary to use FP methods because they did not live with a man (21.4%), yet they finally faced unmet need for Family Planning.

Furthermore, according to accessibility of contraceptives, all respondents (131) were aware of where to get contraceptives especially from community health workers (58.8%) and community health officers/health centers (66.4%). Almost all women (96.2%) knew that they were allowed to take contraceptives while 91.6% were aware that contraceptives were gotten free of charge. On the other side, women were claiming that they lost time (39.7%) and money for transport (19.8%) when going to take contraceptives. They were also criticizing absence of service providers (19.1%), missing preferred type of products (12.2%) and long queues (7.6%).

Moreover, in socio-environment factors, women were discouraged strongly by information received as side effects experience from contraceptive users (38.9%) and religious influence (38.2%). Again, the aids provided to women influenced 16% to discontinue contraceptive use to be able to get pregnant and then qualify to benefit the support to pregnant and lactating women.

5.2. CONCLUSION

From the findings, interpretation and analysis of data collected, the following conclusions were drawn:

1. Women age, low level of education and low income played a significant role in unmet need for FP;
2. Need for child boy in family lead to unmet need for FP in searching for that sex. But also limited husband's involvement/participation and opposition in FP was an obstacle that hindered women to take decision of using contraceptives and finally got unwanted and unplanned pregnancy;
3. Experience and fear of contraceptives drugs' side effects influenced women to resist to use contraceptives while others found it not necessary because they were not living with a man and had infrequent sex, which leads women to have unmet need for FP;
4. Women had enough information about contraceptives use, that they were allowed to use them, that contraceptives were free of charge but criticized time loss and cost expenses when traveling to take contraceptives. In addition, they complained that absence of

service providers, long queues and service provider status (being a child, old or men) made some of them comfortable to go to take the service. All these discontentments discouraged women to use contraceptives and ended up having unmet need for FP;

5. Women socio-environment especially information from people who used contraceptives and friends, teachings from religious bodies and aids provided to women while pregnant or lactating, influenced them to not use PF methods, which leads to unmet need for FP.

5.4. RECOMMENDATIONS

a. General recommendations

From highlights of study findings, analyzes and interpretation,

1. Government, Non-Government Organizations and Private Sector should work together to sensitize families to prioritize family planning to reduce family size and unwanted pregnancies and build households resilience for development.
2. For policy makers (government and/or non-governmental organizations), there is a need to devise strategic policy actions meant to improve women's capacity and socio-economic empowerment (income and education) for them to play a role in sound decision making especially in health-related matters including family planning for improved wellbeing of families.
3. Government should increase campaign programs about family planning with strong emphasis on contraceptive use and enough information about side effects control and management. Also, there should be enough campaigns to correct misconception about contraception.
4. Government, local leaders and health professional workers at local levels should organize intensive forums to encourage men to engage and participate in family planning through proper attitudes that support contraceptives use.
5. There is a need for strong partnership between government and faith-based organizations on proper health risks control mitigating unwanted pregnancies.
6. By the recommendations of United Nation Population Fund (1996), family planning programs should offer safe, acceptance, affordable and variety of contraceptives in which women have a choice for best suitable methods to their bodies. This will also go together

with proper contraceptives distribution where services are provided to increase adherence to FPM use.

7. There is a need to increase access to family planning services by service seekers, increase service providers and a variety of products fitting the service seekers preferences and choices whenever required.
8. The families should adopt FPM effectively as the best strategy of sustainable development.

b. Recommendations for further studies

With limited time and financial means, this study was not able to explore all factors of unmet need for FP especially to all women of Gisagara District as well as in all areas (rural and urban) of Rwanda. Further researches should be conducted to explore all the factors of unmet need by areas and the total number of women with unmet need for FP in Gisagara as well as in all areas of Rwanda.

BIBLIOGRAPHY

AbouZahr, C., & Wardlaw, T. (2001). Maternal mortality at the end of a decade: signs of progress? *Bulletin of the World Health Organization*, *79*(6), 561–568. https://doi.org/10.1590/S0042-96862001000600013

Agus, Y., Pamungkasari, E. P., & Soemanto, R. (2019). Theory of Planned Behavior: Determinants of the Use of Modern Family Planning Method. *Jornal of Maternal and Child Health*, *4*(5), 2019.

Ajzen, I., & Fishbein, M. (1977). Attitudeóbehavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, *84*, 888-918.

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhi & J. Beckmann (Eds.). *Actionócontrol: From Cognition to Behavior*, 11–39.

Ajzen, Icek. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179– 211.

Ajzen, Icek. (2002). Perceived behavioral control, self-efficacy, locus of control, and the Theory of Planned Behavior. *J Appl Soc Psychol*, *32*, 665–683.

Ajzen, Icek. (2011). Is the Theory of Planned Behaviour an appropriate model for human fertility?: Reflections on Morgan and Bachrach's critique. *Vienna Yearbook of Population Research*, *9*, 63–69. https://doi.org/:10.1553/populationyearbook2011s63

Akhtar, M. I. (2014). Research design Research design. *Research in Social Science: Interdisciplinary Perspectives*, *September*, 68–84.

Akintade, O., Pengpid, S., & Peltzer, K. (2011). Awareness and use of and barriers to family planning services among female university students in Lesotho. *South African Journal of Obstetrics and Gynaecology*, *17*(3), 72-8...

Almalik, M., Mosleh, S., & Almasarweh, I. (2018). Are users of modern and traditional contraceptive methods in Jordan different? *Eastern Mediterranean Health Journal*, *24*(4).

Atkinson, J. W. (1964). *An introduction to motivation*. Princeton, NJ: Van Nostrand.

Bandura, A., Adams, N. E., Hardy, A. B., & Howells, G. N. (1980). Tests of the generality of self-efficacy theory. *Cognitive Therapy and Research, 4*, 39–66.

Barman, S. (2013). Socio-economic and Demographic Determinants of Unmet Need for Family Planning in India and its Consequences. *Research on Humanities and Social Sciences*, *3*(3).

Barrett, J. B., Ellison, C. G., Grammich, C. A., & DaVanzo, J. S. (2013). Religion and Attitudes Toward Family Planning Issues Among US Adults. *Review of Religious Research*, *56*(2), 161–188. https://doi.org/10.1007/s13644-013-0136-z

Biddlecom, A. E., Casterline, J. B., & Perez, A. E. (1997). "Spouses" views of contraception in the Philippines. *International Family Planning Perspectives*, *32*(3), 108–115.

Bradley, S. E. K., & Casterline, J. B. (2014). Understanding Unmet Need: History, Theory, and Measurement. *Studies in Family Planning*, *45*(2), 123–150. https://doi.org/10.1111/j.1728-4465.2014.00381.x

Bradley, S. E. K., Croft, T. N., & Fishel, J. D. (2012). *Revising Unmet Need for Family Planning: DHS Analytical Studies No. 25*. *January*, 63.

Bradley, S. E. K., Croft, T. N., Fishel, J. D., & Westoff, C. F. (2012). Revising unmet need for family planning. *DHS Analytical Studies No 25*, *25*, 93.

Butler, A. S., & Clayton, E. W. (2009). *A Review of the HHS Family Planning Program: Mission, Management, and Measurement of Results*. *editors*.

Caldwell, J. C., & Caldwell, P. (1987). The cultural context of high fertility in sub-Saharan Africa. *Population and Development Review*, *18*(2), 409–437.

Caplescu, R. (2014). Using the Theory of Planned Behaviour to study fertility intentions in Romania : 7th International Conference on Applied Statistics. *Procedia Economics and Finance*, *10*, 125–133. https://doi.org/10.1016/S2212-5671(14)00285-8

Daniel, M., Danuta, K., & SH, T. (1997). The theory of rea_soned action and the theory of planned behavior. In: Glanz K, Lewis FM, Rimer BK (eds). *Health Behavior and Health*

Education: Theory, Research and Practice, 85–112.

De Graaf, S. D. (1991). Increasing Contraceptive use in Bangladesh: The role of demand and supply factors. *Demography*, *28*(1), 65 – 78.

Drennan, M. (1998). Reproductive Health: new perspectives on men's participation. *Population Reports, Series J*, 46: 36.

Enock, P. M. (2013). Socio-economic and demographic factors affecting contraceptive use in Malawi. *African Journal of Reproductive Health*, *17*(3), 91–104. https://doi.org/10.1080/09709274.2014.11906731

Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research.* (Vol. 27).

Francis, S. (1991). Empower the Women! Empower the Nation! *Agenda*, *7*(11), 33–35.

Gage, A. J. (1995). Women's Socioeconomic Position and Contraceptive Behavior in Togo. *Studies in Family Planning*, *26*, 264–277. http://dx.doi.org/10.2307/2138012

Gisagara_District. (2018). *Gisagara District Development Stragy (2018-2024).*

Gisagara Family Planning Report. (2020).

Gogoi, K., Chanu, N., & Hazarika, J. (2017). A study on Status of Family Planning Practices and the Associations with Socio-economic and demographic Factors in Mnipur, India. *International Journal of Statistics and Systems*, *12*, 445.

Gregson, S., Zhuwan, T., Anderson, R. M., & Chandiwana, S. K. (1999). Apostles and Zionists: the influence of religion on demographic changes in rural Zimbabwe. *Population Studies*, *53*, 179 – 193.

Guttmacher. (2015). *World Population Day—Six Reasons to Support Family Planning*.

Hall, M. A. K., Stephenson, R. B., & Juvekar, S. (2008). Social and Logistical Barriers to the Use of Reversible Contraception among Women in a Rural Indian Village. *Journal of Health Population and Nutrition*, *26*(2), 241–250.

Hemed, M. (2016). *Cross-sectional studies: Training Course in Sexual and Reproductive Health Research*.

Hubacher, D., & Trussell, J. (2015). A definition of modern contraceptive methods. *Contraception*, *92*(5), 420–421. https://doi.org/10.1016/j.contraception.2015.08.008

Igwegbe, A., Ugboaja, J., & Monago, E. (2009). Prevalence and determinants of unmet need for family planning in Nnewi, South-east Nigeria. *International Journal of Medicine and Medical Sciences*, *8*(1), 325–9.

Jain, R., & Muralidhar, S. (2011). Contraceptive Methods: Needs, Options and Utilization. *J Obstet Gynaecol India*, *61*(6), 626–634. https://doi.org/10.1007/s13224-011-0107-7

Joeliatin, J., Murti, B., & Suryani, N. (2016). Theory of Planned Behavior on the Determinants of participation in the longterm contraceptive method among women of reproductive age, in Nganjuk, East Java. *Journal of Health Promotion and Behavior*, *1*(3), 171–179. https://doi.org/10.26911/thejhpb.2016.01.03.04

Kasa, A. S., Tarekegn, M., & Nebyat Embiale. (2018). Knowledge, attitude and practice towards family planning among reproductive age women in a resource limited settings of Northwest Ethiopia. *BMC Res Notes*, *577*(11). https://doi.org/https://doi.org/10.1186/s13104-018-3689-7

Khan, S., Bradley, S. E. K., Fishel, J., & Mishra, V. (2008). Unmet need and the demand for family planning in Uganda: Further analysis of the Uganda Demographic and Health Surveys, 1995-2006 . *DHS Further Analysis Reports No. 60* , 1995–2006. http://dhsprogram.com/pubs/pdf/FA60/FA60.pdf

Kiene, S. M., Hopwood, S., Lule, H., & Wanyenze, R. K. (2014). An empirical test of the Theory of Planned Behaviour applied to contraceptive use in rural Uganda. *Journal of Health Psychology*, *19*(12), 1564–1575. https://doi.org/DOI: 10.1177/1359105313495906 hpq.sagepub.com

Kulczycki, A. (2018). Overcoming Family Planning Challenges in Africa: Toward Meeting Unmet Need and Scaling Up Service Delivery. *Afr J Reprod Health*, *22*(1), 9–19.

https://doi.org/10.29063/ajrh2018/v22i1.1

Kurniati, A., Astirin, O. P., & Suryani, N. (2016). Effect of Maternal Education, Family Income, Mother-Midwife Interface, and the Incidence of Iron Deficiency Anemia in Pemalang, Central Java. *Ournal of Maternal and Child Health*, *1*(4), 220–229.

Lasee, A., & Becker, S. (1997). Husband-wife communication about family planning and contraceptive use in Kenya. *International Family Planning Perspectives*, *23*(1), 15–20.

Levin, K. A. (2006). Study design III: Cross-sectional studies. *Evidence-Based Dentistry*, *7*(1), 24–25. https://doi.org/10.1038/sj.ebd.6400375

Link, C. F. (2011). Spousal Communication and Contraceptive Use in Rural Nepal: An Event History Analysis. *Studies in Family Planning*, *42*(8), 83–92. https://doi.org/10.1111/j.1728-4465.2011.00268.x

Machiyama, K., Casterline, J. B., Mumah, J. N., Huda, F. A., Obare, F., Odwe, G., Kabiru, C. W., Yeasmin, S., & Cleland, J. (2017). *Reasons for unmet need for family planning , with attention to the measurement of fertility preferences : protocol for a multi-site cohort study*. 1–11. https://doi.org/10.1186/s12978-016-0268-z

Magadi, M. A., Madise, N. J., & Rodrigues, R. N. (2000). Frequency and timing of antenatal care in Kenya: explaining the variations between women of different communities. *Social Sciences and Medicine*, *51*(4), 551 – 561.

MayiTsonga S, Assoumou Obiang, P., Minkobame, U., Ngouafo, D., Ambounda, N., & Souza, M. H. (2014). Introduction of postabortion contraception, prioritizing long-acting reversible contraceptives, in the principal maternity hospital of Gabon. *International Journal of Gynecology and Obstetrics. 126(1): 10–13*, *126*(1), 10–13. https://doi.org/10.1016/j.ijgo.2014.- 03.012

Mohammed, A., Desalegn, W., Reproductive Health volumeFeleke, A., & Megabiaw, B. (2014). Determinants of modern contraceptive utilization among married women of reproductive age group in North Shoa Zone, Amhara Region, Ethiopia. *Reproductive Health Volume*, *11*(13). https://doi.org/https://doi.org/10.1186/1742-4755-11-13

Morgan, P. S., & Bachrach, C. A. (2011). DEMOGRAPHIC DEBATE - Is the Theory of Planned Behaviour an appropriate model for human fertility? *Vienna Yearbook of Pulation Research*, *9*, 11–18. https://doi.org/10.1553/populationyearbook2011s11

Mukhongo, A. R. (2015). *Unmet Need for Family Planning Among Women of Reproductive Age Living in Makadara Division , Nairobi County , Kenya* . (Issue June). Kenyatta University.

Nakirijja, D. S., Xuili, X., & Kayiso, M. I. (2018). Socio-economic Determinants of Access to and Utilization of Contraception among Rural Women in Uganda: The Case of Wakiso District. *Health Science Journal*, *12*(6), 1–20. https://doi.org/10.21767/1791-809x.1000608

Ndola, P. (2007). The need for family planning. *Population and Environment*, *28*, 212–222. https://doi.org/10.1007/s11111-007-0042-9

NISR. (2016). *Rwanda Demographic and health survey report 2014-2015*.

NISR. (2018). *The Fifth Integrated Household Living Conditions Survey 2016/17: Rwanda Poverty Panel Thematic Report*. http://www.statistics.gov.rw

NISR. (2020). *Rwanda Demographic and Health Survey : Key Indicators Report 2019-20*.

NRCP. (2001). *Diffusion processes and fertility transition: selected perspectives* (J. B. Casterline (Ed.). National academies press (US). https://doi.org/10.17226/10228

Nwakwo, B. ., & E.Ogweri. (2006). Influence of husband's decision on the use of modern contraceptives among rural and urban married women in Imo State, Nigeria. *International Journal of Tropical Medicine*, *40*(1), 140–144. https://medwelljournals.com/abstract/?doi=ijtmed.2006.140.144

Ocholla-Ayayo, A. B. C. (1997). The Implication of our Creative Diversity in Global Ethics. *Paper Presented to Workshop Organized by UNESCO on Culture and Development for the 21st Century, Nairobi*.

Omondi-Odhiambo. (1997). "Men"s participation in family planning decision in Kenya. *Population Studies*, *51*(1), 29–40.

Omwago, M. O., & Khasakhala, A. A. (2006). Factors influencing couples' unmet need for

contraception in Kenya. *Etude de La Population Africaine*, *21*(2). https://doi.org/10.11564/21-2-342

Ouma, A. H. (2014). *Socio-economic and cultural barriers to utilization of contraceptives among women in Ndhiwa District, Homa bay county, Kenya*. KENYATTA UNIVERSITY.

Oyediran, K. A., & Isiugo-Abanihe, U. C. (2002). Husband-wife communication and couple‟s fertility desires among the Yoruba of Nigeria. *African Population Studies*, *17*(2), 61–80.

Palamuleni, M. (2013). SOcio-economic and demograohic factors affecting contraceptive use in Malawi. *African Journal of Reproductive Health*, *17*. https://doi.org/10.1080/09709274.2014.11906731

Peyman, N., & Oakley2, D. (2009). Effective contraceptive use: an exploration of theory-based influences. *Health Education Research*, *24*(4), 575–585.

Ranjana, K. (2012). Role of Gender in Contraceptive Use among Currently Married Women in Uttar Pradesh and Bihar. *Research on Humanities and Social Sciences*, *2*(2), 34–46.

Rees, J. A. (2017). Religion and Culture. *E-International Relations*.

Safitri, H., & Siregar, K. N. (2019). *Access, Quality of Family Planning Service, and Unmet Need: A Systematic Review*. https://doi.org/10.26911/the6thicph-FP.04.20

Salami, I. C., & Oladosu, M. (2016). *Socio-Demographic Factors, Contraceptive Use and Fertility Preference among Married Women in South_South Region of Nigeria*.

Sangi- Haghpeykar, H. (2006). *Disparities in contraceptive knowledge, attitude and use between Hispanic and non- Hispanic whites, Contraception*. *74*, 125- 132.

Sara, E. (2013). *Family planning*.

Schwandt, H. M., Feinberg, S., Akotiah, A., Douville, T. Y., Gardner, E. V., Imbabazi, C., McQuin, E., Mohamed, M., Rugoyera, A., Musemakweli, D., Nichols, C. W., Nyangezi, N. U., Arizmendi, J. S., Welikala, D., Yamuragiye, B., & Zigo, L. (2018). “Family planning in Rwanda is not seen as population control, but rather as a way to empower the people”: examining Rwanda’s success in family planning from the perspective of public and private

stakeholders. *Contraception and Reproductive Medicine*, *3*(1), 1–7. https://doi.org/10.1186/s40834-018-0072-y

Sedgh, G., Ashford, L. S., & Hussain, R. (2016). Unmet Need for Contraception in Developing Countries: Examining Women's Reasons for Not Using a Method. *Guttmacher Institute*, *June*, 65.

Sensoy, N., Korkut, Y., Akturan, S., Yilmaz, M., Tuz, C., & Tuncel, B. (2018). *Factors Affecting the Attitudes of Women toward Family Planning*. 33–50. https://doi.org/10.5772/intechopen.73255

Sevil, U., Yanikkerem, E., & Hatipoglu, S. (2006). A survey of knowledge, attitudes and practices relating to emergency contraception among health workers in Manisa, Turkey. *Midwifery*, *22*(1), 66–77.

Shafiqullah, H., Morita, A., Nakamura, K., & Seino, K. (2016). The Family Planning Conundrum in Afghanistan. *Health Promotion International*, *33*(2), 311–317.

Sharan, M., & Valente, T. W. (2002). Spousal Communication and Family Planning Adoption: Effects of a Radio Drama Serial in Nepal. *International Family Planning Perspectives*, *28*(1), 16–25. https://doi.org/10.2307/3088271

Stark, M. A. (2000). Is it difficult to concentration during the 3rd trimester and postpartum? *Journal of Obstetric, Gynecologic & Neonatal Nursing*, *29*(4), 378–389. https://doi.org/10.1111/j.1552-6909.2000.tb02060.x.PMID:10929841

Tuyishime, E., Källestål, C., & Selling, K. (2016). Factors Associated with the Prevalence of Contraceptive Use among Women of Reproductive Age in Rwanda: A Cross-Sectional Study using Demographic and Health Survey Rwanda 2010. *International Journal of Women's Health*, *135*(15), 23–44.

UNPD. (2014). World Contraceptive Use, 2014. *United Nations, Department of Economic and Social Affairs, Population Division (2014).World Contraceptive Use 2014 (POP/DB/CP/Rev2014).*, 1–3. http://measuredhs.com/Topics/Unmet-Need.cfm

UNPF. (2010). Improving Reproductive Health. *UNFPA*, *23 April 2010*.

UNWomen. (2013). The role of women in rural development, food production and poverty eradication. *International Day for Rural Women & International Day for the Eradication of Poverty*.

Westoff, C. F., & Bankole, A. (1998). The Time Dynamics of Unmet Need: An Example from Morocco. *International Family Planning Perspectives*, *24*(1), 12–14.

WHO. (2020). *Family planning/contraception methods*.

Wicker, A. W. (1969). Attitudes versus actions: The relationship of verbal and overt behavioral responses to attitude objects. *Journal of Social Issues*, *25*, 41-78.

ANNEXES

RESEARCH QUESTIONS

Note:

- The information provided is kept confidential and will be used only in this study
- Answering the questions is respondent's right and choice.
- Mark the letter **V** in the box following the question.

.....

A. PERSONAL IDENTIFICATION OF RESPONDENT

1. How old are you? ☐
2. Are you married? Yes ☐ No ☐
3. How often do you sleep with a man a week? Always☐ Often ☐ sometimes☐ Rarely ☐
4. How many children do you have? ☐ Number of male☐ Number of female☐
5. In what Sector do you live? Save ☐ Nyanza ☐ Mugombwa☐
6. What schools did you complete? None ☐ Primary ☐ secondary school☐ University or college ☐
7. What 'ubudehe' category do you belong to? ☐
8. What religion are you affiliated? ☐
9. Have you ever used contraceptives before? Yes☐ No☐

B. QUESTIONS ABOUT THE RESEARCH PURPOSE

I. The role of the family (Husband, number of children) in the decision a woman makes about the family planning.

1. Have your husband ever accompanied you for prenatal services? Yes ☐No☐
2. Have your husband ever took kids for vaccination? Yes☐No☐
3. Does your husband attend "umugoroba w'ababyeyi? Yes☐ No ☐
4. Does your husband attend "ubusugire bw'ingo"? Yes ☐No☐
5. To what extend do you think your husband stands the use of contraceptive?
   He is not concerned ☐ He is concerned strongly☐ I don't know ☐

6. What are some of the reasons that prevent you from using contraceptives**?**
   a) I am afraid my husband may not support and we never have time to discuss ☐
   b) I still need a boy☐ a girl ☐
   c) My husband still needs a boy☐ a girl☐
   d) My in-law family still need a boy ☐ a girl☐
   e) My husband comes home rarely ☐
   f) I don't live with a man ☐
   g) I am ashamed to take contraceptives ☐
   h) I don't have time to go to get contraceptives☐
   i) My religion does not accept contraceptives☐
   j) I think that there is no tangible reason in contraceptive use☐
   k) I heard that contraceptives have negative impact on my body☐
   l) I used contraceptives before but negatively affected my body☐

II. How family planning services are available or depend on those who need them

1. Do you know where you can get contraceptives Yes ☐ No☐
2. If yes, where? At community health officer ☐At community health worker☐
   Where else (type it) ☐
3. Do you know that contraceptives are free?
   a) I didn't know☐ b) I have heard but I forgot☐ c) I am not sure☐
4. Do you know that you are allowed to get contraceptives? Yes☐ No☐ I am not sure☐
5. What do you lose by going to get contraceptives? Time☐Money for transport ☐
   Money for service payment☐ Money for product payment ☐
6. What do you blame where contraceptives are provided?
   a) There is long line☐
   b) There provided by children☐
   c) There are old people☐
   d) There are absent sometimes☐
   e) They don't have customer care☐
   f) They are provided by men☐
7. Where do you get information about contraceptives

a) When I go to a health center, for vaccination ☐ for antenatal care services ☐
b) Friends and relatives ☐
c) Media ☐
d) From community health workers ☐

8. Have you ever missed a type of contraceptive that you preferred? Yes ☐ No ☐
9. If yes, why? ……..

III. The role of socio-environment (extended family, friends, religions, state laws) in family planning decisions.

1. What do you see as the main reason of not using contraceptives? (Include all possible answers
   a) Religion ☐
   b) Friends ☐
   c) Peers and colleagues ☐
   d) My husband ☐
   e) My mother ☐
   f) Mother in low ☐
   g) My in-lows (sisters and brothers in low) ☐
   h) My self ☐
   i) My body rejected contraceptives ☐
   j) None of them, it happens ☐
2. What else do you find that causes you to not meet the need of family planning programs? (Select all possible)
   a) The impact I have heard on users? ☐
   b) I don't want to lose what we get when we are pregnant or have baby: Shishakibondo, Money, Clothes, milk, domestic animals ☐

THANK YOU!