

**DETERMINANTS OF MODERN FAMILY PLANNING METHODS UTILISATION AMONG
SOUTH SUDANESE REFUGEE WOMEN AGED 15-49 YEARS IN KIRYANDONGO REFUGEE
SETTLEMENT**

ESTELLA JOHN KASIANO KITALE

RJ21M21/211

**A DISSERTATION SUBMITTED TO THE UGANDA CHRISTIAN UNIVERSITY TO THE
FACULTY OF PUBLIC HEALTH, NURSING AND MIDWIFERY IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF PUBLIC
HEALTH OF UGANDA CHRISTIAN UNIVERSITY**

May, 2024

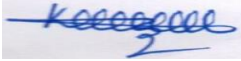


**UGANDA CHRISTIAN
UNIVERSITY**

A Centre of Excellence in the Heart of Africa

I. DECLARATION

This dissertation is entirely work done by myself, and I have not given it for any academic degree or qualification at a different University or institution of higher learning.

Sign: 

Kitale Estella John Kasiano

Date: 23rd May 2024

II. APPROVAL

This dissertation meets the partial criteria for a Master of Public Health degree from Uganda Christian University, and I have given my approval as the academic supervisor.

Name: Namyalo Josephine Date: 23rd May 2024

Signature: 

III. DEDICATION

My work is a dedication for improvement of family planning (FP) services in the third world where there is a high-unmet need for FP.

I would also dedicate this book to my darling husband Dr. Kandyang Modi for the strength that you see in me and above all for your provision and love.

To my children Jaguru, Duku, Lombi, Juru. Finally, to my late dad Teacher John Kasiano and the family, I love you all.

IV. ACKNOWLEDGEMENT

First, I thank God Almighty who carried me throughout the toughest times of the years and it was not going to be possible without His help for me to have come this far.

I am deeply thankful for my academic supervisor; Namyalo Josephine and my husband Dr. Kandyang Modi for the rich advice, patience and tireless efforts in guiding me as I worked on my dissertation. Many thanks to Isaac, Allen and Rose for their support and friendship.

I appreciate my research assistants at Panyadoli Health Center IV and the In-charge of the facility for having cooperated with me and made my work easier.

Finally, I thank the participants who gave us time and cooperated, may divine blessings be upon you.

V. TABLE OF CONTENTS

I. DECLARATION	i
II. APPROVAL.....	ii
III. DEDICATION.....	iii
IV. ACKNOWLEDGEMENT	iv
V. TABLE OF CONTENTS.....	v
VI. List of tables.....	viii
VII. List of figures.....	ix
VIII. LIST OF ABBREVIATIONS.....	x
IX. OPERATIONAL DEFINITIONS	xi
ABSTRACT	xii
CHAPTER ONE	1
INTRODUCTION.....	1
1.0 Background to the study	1
1.2 Statement of the problem	3
1.3 Research Questions	4
1.4 Objectives of the study	4
1.4.1 Main objective.....	4
1.4.2 Specific objectives	4
1.5 Scope of the study	4
1.6 Justification	5
1.7 Significance of the study.....	5
1.8 Conceptual Framework.....	6
CHAPTER TWO	8
LITERATURE REVIEW	8
2.1 Definition	8
2.2 Benefits of family planning	8
2.3 Accessibility of modern family planning methods	8
2.4 Utilisation of modern contraceptives.....	10
2.5 Determinants of utilisation of contraceptives.....	11
2.6 Strategies to address factors influencing family planning utilisation in Uganda	13
2.7 The needs not met for family planning	14
2.8 Summary of Literature review	15
CHAPTER THREE	16
METHODOLOGY	16

3.1 Research design.....	16
3.2 Area of Study.....	16
3.3 Study population	16
3.4 Eligibility criteria	17
3.4.1 Inclusion criteria	17
3.4.2 Exclusion criteria	17
3.5 Sampling	17
3.6 Size of sample determined	17
3.7 Variables of the study.....	18
3.7.1 Dependent variable	18
3.7.2 Independent variables	18
3.8 Data collection tools	18
3.9 Data Management Plan	19
3.9.1 Data analysis	19
Quantitative data	19
Reviewing the themes, themes were reviewed to ensure that they are useful and are an accurate representation of the data.	20
3.10.2 Quality control.....	20
3.10.2.1 Pretesting	20
3.10.2.2 Training of research Assistants.....	20
3.11 Ethical consideration	20
Chapter Four.....	22
Results	22
4.1 Respondents socio-demographic characteristics.....	22
4.4 Bivariate analysis.....	27
4.3 Multivariate analysis.....	32
Chapter Five.....	39
Discussion	39
5.0. Introduction	39
5.1 Current use of FP	39
5.2 Determinants associated with utilisation of modern contraceptives.	41
Chapter Six.....	44
Conclusion and Recommendations.....	44
Conclusion.	44
Recommendations.	44
REFERENCES.....	46

APPENDICES.....	51
Appendix I: A map showing the location of Bweyale.....	51
Appendix II: Consent Form	52
Annex III: QUESTIONNAIRE.....	55
Appendix IV. KIs Guide for family planning.	60

VI. List of tables

Table 1: Respondents socio-demographic characteristics.....	22
Table 2: Shows descriptive statistics for continuous variables.....	23
Table 3: Distribution of women of reproductive age by health belief factors	24
Table 4: Distribution of respondents' modern FP usage	25
Table 5: Determinants of family planning current use.	27
Table 6. Bivariate analysis of institutional Factors influencing modern contraceptive uptake among women of reproductive age from South Sudan in Kiryandongo refugee Settlement.....	27
Table 7. Bivariate analysis of respondents' biodata and the relationship between current uses of family planning method.	28
Table 8. Showing bivariate analysis of individual factors and current use of FP	30
Table 9. Showing factors related with modern contraceptives uptake among women of reproductive age, 15 - 49 years from South Sudan.....	32

VII. List of figures

Figure 1: Conceptual Framework adapted from Hochbaum, Rosenstock and Kegels 1950s.....	7
Figure 2: Distribution of Modern contraceptive use by Age of the women	23
Figure 3: A pie chart showing the distribution of respondents current use of modern FP method.....	26

VIII. LIST OF ABBREVIATIONS

CDC	Center for Disease Control and Prevention
DHIS	District Health Information System
FP	Family planning
HIV	Human Immunodeficiency Virus
IAWG	Inter-agency Working Group
IUD	Intra-uterine Device
LMICs	Low- and Middle-Income Countries
MCPR	Modern Contraceptive Prevalence Rate
MOH	Ministry of Health
OPM	Office of the Prime Minister
PHC	Panyadoli Health Center
SACCO	Saving and Credit Cooperative Society
SDGs	Sustainable Development Goals
SRH	Sexual and Reproductive Health
STIs	Sexually Transmitted Infections
UBOS	Uganda Bureau of Statistics
UDHS	Uganda Demographic Health Survey
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
WHO	World Health Organisation

IX. OPERATIONAL DEFINITIONS

Family planning refers to the uptake of safe and effective methods to decide on the desired number of children, if any and when to have them.

Modern Family planning methods are techniques that aid an individual and couples to make informed decisions about their reproductive health, about when to get pregnant and attain the number of children they want. They include IUD, implants, injectable, Sayana press, condoms, pills, and post coital emergency pills.

Reproduction is the process by which organisms replicate themselves.

Reproductive age refers to an age of at least 15 years to 49 years, when the woman is capable of bearing children.

Accessibility refers to "condition of being readily approached." This implies something being available, reachable, and usable.

Knowledge is defined as ever heard at least one (any) one method of family planning.

Unmet need for family planning This refers to women within the reproductive age group who are not using any modern family planning method, while reporting the need to delay the next birth or even wanting to stop having children.

Refugees are persons who have been forced out of their country of origin for reasons of fear of war, mistreatment, and natural disaster, like the South Sudanese in Uganda because of war in their country.

Utilisation Refers to a respondent having used or is using any one or more type of modern family planning method.

ABSTRACT

Introduction: This study explored factors that influenced uptake of modern contraceptives among the group of South Sudanese refugee women of childbearing age in Kiryandongo Refugee settlement.

Methodology: An analytical cross sectional mixed study was carried out amidst 312 women of childbearing age by administering structured questionnaire from Kobo collect tool to them. Key informants were interviewed for the qualitative arm. Data collection was conducted from July to August 2023; STATA software version 14 was used for analysis and thematic content analysis.

Results: The study revealed that 22.1percent of the South Sudanese women of childbearing age used contraceptives methods. Tribe, monthly income of the respondents with [P-value, 0.001], and [P-value (0.003)] respectively were found to be individual factors related to usage. Availability of the services [P-value (0.035) <0.05], women who discuss with partners about modern FP [P-value (0.005) <0.05], self-decision making for the FP method used [P-value (0.023) <0.05], comfortability with the FP service delivery environment [P-value (0.002) <0.05] were the respondent and health facility determinants associated with current uptake of the modern contraception method.

Conclusions: our findings show a low uptake of modern contraceptive methods amongst South Sudanese women of childbearing age as compared to the current contraceptive use in Uganda which is 38% (UDHS, 2022).

Recommendations: There is need to improve the outreaches within the settlement to give more information about the usefulness of FP also and provide FP services. Implement Counselling for refugees within the camp to encourage good decision making on uptake.

CHAPTER ONE

INTRODUCTION

1.0 Background to the study

There is a notably increasing number of refugees worldwide, reaching 25.9 million (Abu-Laban, 2021). In a similar note, there is a growing global use of family planning and its positive impact of lowering maternal and infant mortality and other adverse outcomes. Globally, out of 1.2 billion women who need contraception, 163 million (about 13.6percent) are not using any contraceptives even though coverage was improved by 2019 at 48percent compared to 28 percent coverage in 1970. This unmet need globally is most frequently among urban slum dwellers, refugees, adolescents and migrants (WHO, 2020). About 13 million sexually active adolescents reported that they need to delay getting pregnant, and yet are not using any contraceptives (Bakesiima et al., 2020).

In developing countries, the number of women of childbearing age remains significantly high, with about 214 million women being unable to meet their FP needs. These women and young girls desire not to get pregnant and are unable to access modern contraceptives. A multitude of barriers such as disrupted family and social networks, compromised access to education and livelihoods, risks of violence against women, exploitation and coerced marriages (Bakesiima et al., 2020). This is common in refugee camps with risks of sexual abuse especially among women and children who become victims of rape and its effects, unwanted pregnancies, unsafe termination of pregnancy, and spreading of sexually transmitted infections including HIV (Bukuluki et al., 2021). The high unmet need in refugees setting may leave women and young girls vulnerable to unintended pregnancies and its related consequences like unwanted abortion, hence increasing maternal mortality and morbidity (Bakesiima et al., 2020).

Thirty percent of the refugees around the world stay in Africa, widely in Sub-Saharan Africa. More than 1 million refugees from South Sudan are living in camps in Northern Uganda. While actual contraceptive prevalence rate in South Sudan was six percent (Obwoya et al., 2018), conflict in South Sudan resulted in over 2

million people including women, who vacated the country by 2017 (UNHCR., 2017). To improve survival and quality of life among women of reproductive age, it is crucial to promote utilisation of modern pregnancy preventive methods. Modern contraceptive uptake lowers the mother and infant mortality through spacing pregnancies and reducing adolescents' unplanned pregnancies (Utomo et al., 2021). However, a study conducted in East Africa noted that contraceptive utilisation varied from 5.1 to 14.6 percent in Djibouti, Kenya and Uganda refugee's camps, (UNHCR, 2011a, Arnaut M, 2007, UNHCR, 2011d, UNHCR, 2011c). This is significantly lower than that in other settlements like Jordan and Malaysia which range from 21.4 percent to 34.2 percent (Seyife et al., 2019).

The birth rate remains high in East Africa with a wide range of disparity in use of modern contraception at a rate of 17.7 percent in Burundi to 45.1 percent in Rwanda. Efforts should be aimed at improving accessibility to messages for priority groups especially the youth and adolescent as well as refugees, to expand the range of contraceptive choices (Tanabe et al., 2017)

South Sudanese communities through anecdotal information, known to discourage women from using any method of contraception including the modern ones for long time. This could be the greatest contributing factor to an elevated birth rate registered at 5.4 children per woman on average, one of the worst levels of Maternal Mortality Rate (1150/100,000) in the region and in the world, as per the National Lot Quality Assurance Survey 2020.

The national modern CPR in Uganda stands at 38.4 percent, with 22 percent women who need family planning services but are not using (UDHS, 2022). The government has put in measures to lower the high birth rates to 4.435 births per woman and increase usage of contraceptives in Uganda. Despite these efforts, FP uptake is still down at 35 percent within the East African region (Ochen & Primus, 2022).

Kiryandongo District aimed to provide family planning services to 45,722 users between July 2015 and June 2016, but they were able to reach only 27,423, which demonstrates 60 percent (Kiryandongo DHIS2, 2017). This shows that 40% of the targeted population did not receive FP services and Refugees in Bweyale

are part of this population (District & Government, 2018). Increasing contraceptives usage is an efficient way for the prevention of pregnancy related death, infant, and child mortality worldwide under the Sustainable Development Goals (SDGs). It also greatly contributes to better standards of living due to reduced poverty, increases gender equity, prevent spread of HIV, reduce unwanted teenage pregnancies, reduce mortality and improving health outcomes (Uganda MOH, 2014). There is however inadequate data on the uptake of modern FP among South Sudanese in Kiryandongo refugee settlement despite its documented good health outcomes. This study aimed at assessing determinants of modern contraceptive uptake among South Sudanese refugee women aged 15-49 years in Kiryandongo Refugees settlement.

1.2 Statement of the problem

At the time of this research, Uganda ranked as the third largest refugees hosting nation globally. With about 1.3 million refugees from South Sudan, the Democratic Republic of Congo, and Burundi (World Bank, 2019). In Africa, Uganda is the biggest refugee hosting country. South Sudanese in Uganda particularly have been noted to have poor knowledge of family planning, accessibility plus utilisation of the methods (24.7 percent compared to Ugandan women of 33.7 percent) from a recent study in Kiryandongo district (Singh et al., 2022). Uganda's total fertility rate stood at 4.435 children in a lifetime per woman. (Singh et al., 2022). Family planning allow families to decide about the number and time of births, also it aids in achieving the United Nations' Sustainable Development Goal 3 which targets universal health coverage, including financial risk protection and access to quality essential healthcare services (Starbird & Norton, 2020). Contraceptive prevalence rate in South Sudan is six percent (Obwoya et al., 2018), this is low compared to Uganda's 38 percent (UDHS., 2022). It is difficult to ascertain the status of family planning utilisation among refugee populations as the health information system and Uganda households' surveys does not incorporate them. Modern contraceptives uptake among South Sudanese refugee women of childbearing age in Uganda continues to lag due to limited information on its utilisation. (Singh et al., 2022). Yet the birth and mortality rates remain high among them. Therefore, this research aimed at

assessing determinants of modern contraceptives uptake among South Sudanese refugee women aged 15-49 years in Kiryandongo Refugee Settlement.

1.3 Research Questions

1. What is the level of using modern contraceptives among South Sudanese refugee women aged 15-49 years in Kiryandongo refugee settlement?
2. What are the factors that influence uptake of modern contraceptives among South Sudanese refugee women aged 15-49 years in Kiryandongo refugee settlement?
3. What are the health provider's perceptions of the facilitators and barriers for family planning use among Sudanese refugees in Uganda?

1.4 Objectives of the study

1.4.1 Main objective

To determine determinants of modern family planning methods usage among South Sudanese refugee women of child bearing age, 15-49 years in Kiryandongo refugee settlement.

1.4.2 Specific objectives

1. To assess the prevalence of modern contraceptive use among South Sudanese refugee women of reproductive age in Kiryandongo refugee settlement.
2. To determine the factors influencing uptake of modern contraceptives among South Sudanese refugee women of reproductive age in Kiryandongo refugee settlement.
3. To understand health provider's perceptions of the facilitators and barriers for family planning use among South Sudanese refugees in Uganda.

1.5 Scope of the study

The research was done in Kiryandongo among refugee women from South Sudan origin leaving in the camp. The study participants were identified in Kiryandongo district. These women were accessed from Panyadoli Health Center IV in Bweyale

Town Council, Kiryandongo district. Bweyale is a town council relying on Panyadoli Health Center for health care. By the end of December 2013, thousands of South Sudanese refugees arrived at Kiryandongo district because of conflict in their country. By the end of September 2015, there were nearly 44,505 new arrivals from South Sudan and these numbers continued to rise (Lwanga, 2015). In Uganda, the minimum legal age required for the purchase and use of contraceptives is 15 years as proposed by the Ministry of health as regarded by the WHO standard for women of childbearing age. The government of Uganda also presumes that the country's economic growth was held back by having children at a very early age (Segawa, 2017, WHO, 2022). This study aimed at assessing determinants of modern contraceptives usage among refugee South Sudanese women of childbearing age in Kiryandongo Refugee Settlement.

1.6 Justification

The study puts into consideration the fact that family planning is a game changing intervention to curb unintended pregnancies which otherwise pose many health risks and a huge financial burden in terms of very expensive prenatal care and postnatal care for the mothers with their infants (WHO, 2019). The study age group was based on Uganda's minimum age legally allowed to purchase and use of contraceptives, which is 15 years as proposed by the Ministry of health as regarded by WHO standard for women of childbearing age (Segawa, 2017, WHO, 2022). This study will help in the promotion of family planning within Kiryandongo refugee Settlement, which is one of the main targets to reach the sustainable development goals (SDGs). This study aimed at assessing determinants of modern contraceptives among South Sudanese refugee women of reproductive age in Kiryandongo Refugee Settlement, in support of the WHO and Ministry of Health target of increasing use of FP among women for improved health outcomes and economic development (Segawa, 2017, WHO, 2022).

1.7 Significance of the study

1. Results from this research are beneficial, because they will inform Panyadoli Health Center IV administration and non-government organisations operating within the settlement on key issues useful in policy

making; and planning for better delivery of family planning services in similar populations.

2. Outputs of this research among South Sudanese refugees will also inform the health facility administrators to facilitate formulation of more informed approaches to improve family planning uptake in such settings.

1.8 Conceptual Framework

This framework is derived from the health belief model, which suggests that an individual perception of the risk of acquiring a disease or becoming ill together with their confidence in the efficiency of the recommended health action significantly impacts their ability of adopting such action (or health intervention). This model is derived from psychological and behavioral theory with the foundation that the two components of health-related behaviour which include the want to avoid illness, or get well if already sick, and the belief that a specific health action or intervention will prevent, or cure, sickness. The individual's course of action often depends on the person's perceptions of the benefits and/or barriers related to health behaviors. The model comprises of six constructs including perceived susceptibility, for example, in women's case the perception of risk of pregnancy, perceived severity, perceived benefits like planned family size and prevention of unintended pregnancy, perceived barriers like partner's control, cost, access, side effects, religion and beliefs, cue to action like listening to messages about contraceptives on radio, posters or health center, and self-efficacy. These constructs for this case determine one's choice to take up the action of adopting a modern family planning method. This conceptual frame thus outlines socio-demographic factors, health belief factors, individual factors and institutional determinants that hinders accessibility and uptake of modern contraceptives among South Sudanese women in Kiryandongo refugee settlement (LaMorte, 2019).

Conceptual framework showing outcome and explanatory variables.

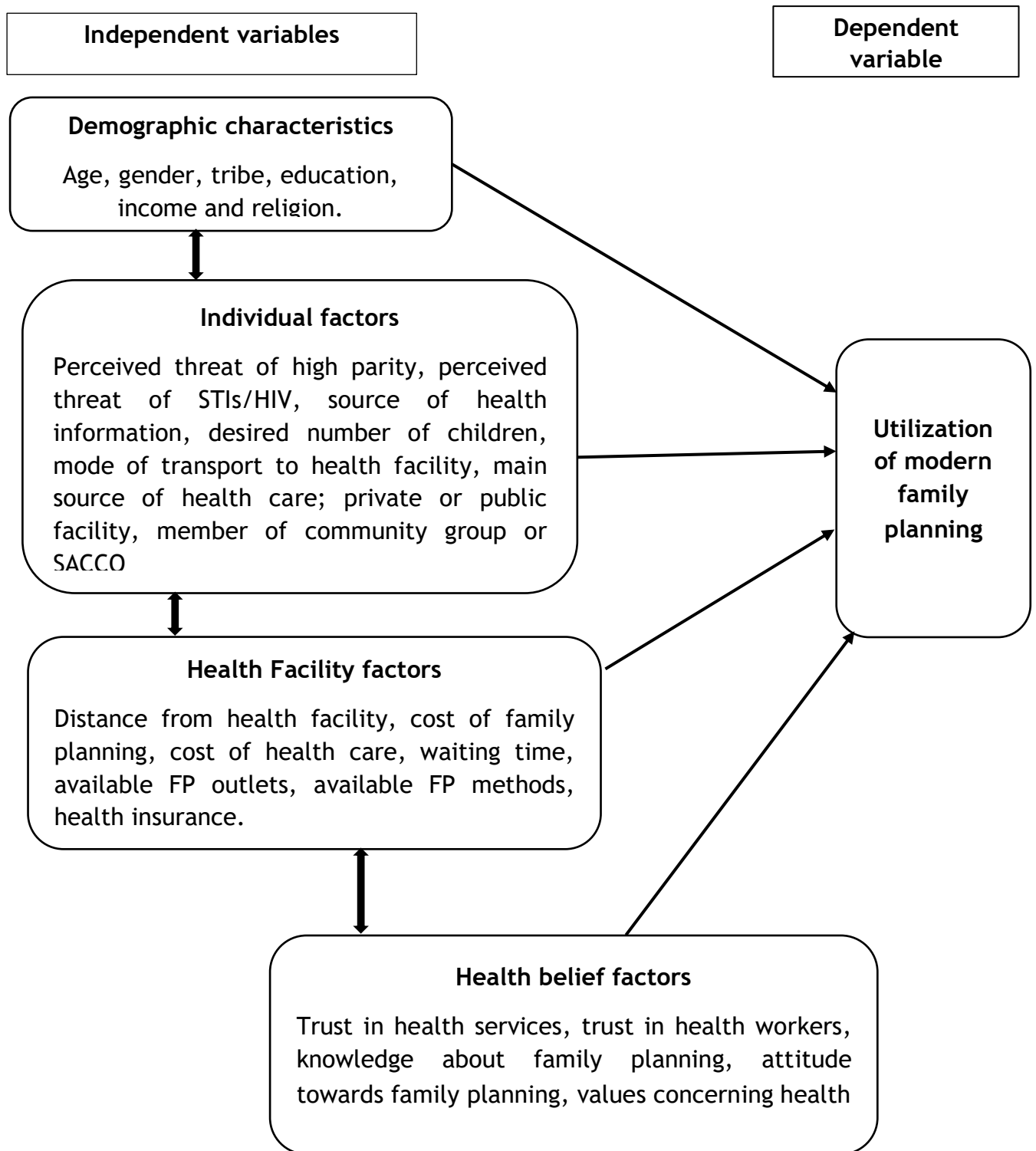


Figure 1: Conceptual Framework adapted from Hochbaum, Rosenstock and Kegels 1950s

CHAPTER TWO

LITERATURE REVIEW

2.1 Definition

Family planning encompasses the utilisation of modern contraceptives or natural methods to manage and space pregnancies. They include pills, male and female condoms, the diaphragm, post coitus emergency pills (as short acting methods), injectable, implants, IUD (as long-acting methods); and female and male sterilization, (as permanent methods). Other methods include traditional methods comprising of lactation amenorrhea, abstinence, withdrawal, and the folk method (Mona Almalik et al., 2021).

2.2 Benefits of family planning

Optimal child spacing requires having two to three years space between children. This may be most effective with modern contraception, although it might be, attained with natural family planning methods. A mother's body requires ample time for full recovery from pregnancy and childbirth before she gets a new pregnancy. This helps her attain optimum nutrition status. It also enhances good nutrition status of the child before the mother gets pregnant again (Bellizzi et al., 2015).

Effective use of contraceptives, aids in eliminating unplanned conceptions and unsafe terminations of pregnancies especially in developing countries (Bellizzi et al., 2015). Modern contraception is not only essential in meeting improved maternal and child health outcomes but also important in addressing poverty globally; through women empowerment (Prata et al., 2017)

2.3 Accessibility of modern family planning methods

It is crucial to have comprehensive access to sexual and reproductive health services globally. This involves offering safe, efficient, and inexpensive modern contraceptive choices, promoting widespread adoption of family planning, and responding to the comprehensive sexual and reproductive health needs of women (Prata et al., 2017).

Numerous contraceptive methods are available with less cost and main health and human rights help (Mona Almalik et al., 2021). Besides, the use of modern contraception is a right to everyone in need women and men who are forced out of their country as a way to prevent unplanned pregnancies and their associated risks (Ivanova et al., 2018).

Numerous studies regarding contraceptive use in a setting of refugees indicate that published interventions for such settings aimed at improving accessibility of these services, needs to focus on behavior change as a way to improve reproductive health outcomes (Tanabe et al., 2017). The Inter-agency Working Group (IAWG) in Reproductive Health in Crises' 2012-2014 global review established shortage of permanent and reversible methods that acts for long together with challenges in supply as a major hindrance in accessibility of modern family planning (Casey, 2015). In addition to challenges in supply chain management, diversity in populations of refugees and internally displaced people influence accessibility to modern family planning services (Curry et al., 2015).

In humanitarian contexts, the adoption of long-acting modern family planning methods has gained acceptance and practicality. Increasing accessibility of contraceptives, service quality improvements like standard precautions, cleanliness, reduced waiting times, and privacy; proper system to do follow-ups; and addressing human resource challenges around adherence to modern family planning methods is essential in improving accessibility and utilisation of modern family planning (Curry et al., 2015).

Research from refugee settings shows that varying populations and quality of services determine SRH outcomes including modern FP. Affordability and distance to service points also impacts greatly on the utilisation of modern FP methods in refugee settings (Curry et al., 2015). A multi-national study carried in Nakivale, to assess and document knowledge of family planning established those findings from focus group discussion (FGD) participants showed that they benefited from home visits as these made accessibility of modern family planning easier. It also established that, common challenges affecting accessibility and utilisation of modern family planning methods and the primary difficulties are remoteness of the service location, transport to the access point of service, cost

of the service and of awareness about the different types especially emergency contraceptives, cultural and social factors, language barrier with the provider, opposition from the husbands, religious teachings especially among Catholics, Muslims and Pentecostals (Tanabe et al., 2017).

Non-governmental organisations like UNHCR and other partners developed short- and longer-term guidance that has ensured availability, this has greatly improved in humanitarian settings (Curry DW, 2015b, Gedeon J, 2015). It also specified accessibility of modern contraceptives for adolescents; and improving quality of services as a major requirement for the improvement of modern contraceptive utilisation, addressing the need for people who are not using family planning and would wish to use (Casey, 2015).

2.4 Utilisation of modern contraceptives.

Utilisation of contraceptives among women of childbearing age remains significantly low in developing countries, with many women desiring but not able to prevent pregnancy because of lack of use of a modern FP method. The low utilisation is largely due to several exacerbating factors among which include shattered family and social structures, compromised education and livelihoods, risks of violence against women.

Research carried out at Jordan shows 85% of women report that utilisation and choice of a modern family planning method is highly influenced by the husband's decision and preference. Findings also reported that 77 percent of the population said that the reasons of non-use of a contraceptive was a mutual decision with the spouse irrespective of the level of education. Women also noted that they first shared the FP method and its safety with their husbands and health providers (Department of Statistics (DOS), 2019).

Studies in Nakivale have documented that the reason some people's demand not met for family planning was not significantly related with age and education, although women not in union had a higher likelihood of using contraceptives than those in union (Tanabe et al., 2017).

2.5 Determinants of utilisation of contraceptives.

Although over the years Uganda has reinforced the capacity of the health system at national and subnational levels to promote communities and deliver family planning services. The program, however, has many problems and limitations that need urgent intervention to reach the country's target of a 50 percent Contraceptive Prevalence Rate (CPR), and 10 percent unmet need by 2020 (Ministry of Health, 2014).

Demographic characteristics includes; older women, educated women, wealth, number of children are more presumably to use contraceptive in developing countries (Mutumba et al., 2018). A study done in Amhara region Ethiopia found out that age group from 25-29 had 32.1 percent, were plausible to use family planning methods than other groups. Education is another major factor for utilisation, with women who are more educated being able to use modern family planning method than the less educated ones (Makumbi et al., 2023). (Mohammed et al., 2014) has shown that women with primary educational level had 32.9 percent with a high likelihood of using modern family planning methods as compared to women in other educational levels. Therefore, lack of knowledge on family planning contributes to low uptake of most of the advocated methods.

Knowledge of family planning: Many Ugandans have knowledge on at least one method of contraception, although the young people in most cases lack knowledge about family planning and contraception. This gets worsened by the fact that parental engagement in teaching children about sex is generally low. Misconceptions, misinformation, and mistrust are also a major hindrance in the utilisation of modern methods of contraception. However, insufficient knowledge about modern family planning methods culminates in low utilisation and the need to address this factor for improved utilisation of modern family planning methods (Department of Statistics (DOS), 2019).

Gender-based inequalities often affect women's decision making at their homes. Inequalities for women prevent them from using contraceptives and lowers its utilisation.

Male involvement: men consider FP a women's issue even when they accept despite the need for their support in decisions concerning FP. A review of literature in Sub-Saharan Africa has revealed that male influence is a key factor in women's decision on family planning use. Some of the reasons men are against use of contraceptives are due to mistrust or misconception of the western culture. Most men want many children hence they do not support contraception. A research carried out in Adjumani Uganda among refugees, showed some reasons for non-use to be husband's disapproval, being afraid of the outcomes and the need of becoming pregnant soon (Achola & Atuyambe, 2022).

Religious Beliefs, culture, and Ties; these are major challenges to utilisation of FP services in Uganda. Amidst those who begin to use contraceptives, 43 percent leave within 12 months. Some attributes their decision to stop on being afraid of the health outcomes (Bakesiima et al., 2020). It is also widely accepted that in Uganda, religion affects the use of modern FP methods, hence creating reduction in demand and utilisation of FP services in the country. Achola and Atuyambe found that another factor that increased women likelihood to use contraceptive was religion, with Catholics having less likelihood of using contraceptives as compared to the Anglicans.

Number of children is one of the determinants related with Power inequities, research has shown that women having 1-2 children has a higher chance of using family planning services as compared to women with five and more children. This is because parents are unable to provide the basic needs. A study conducted in Pakistan measured a scale for wealth and found a relatively increased likelihood of contraceptives uptake to be one-third times greater amidst those with low wealth quantile (Kamal et al., 2021). This was contrary to a study in Uganda that revealed that wealth was not related with the use of modern family planning (Asiimwe JB et al., 2014).

Distance to a health facility is one of the facility determinant related with use of family planning (Kaniki, 2017). A study had found that short distance to a health center was related with a greater uptake of contraceptives amidst the older and the young people. A study done across five countries (Ghana, Kenya,

Uganda, and Burkina Faso), found that distance to a health center or hospital was not generally related with use (Zimmerman et al , 2019).

In summary, the literature reviewed under this study have examined from most point of view in different settings. Especially, in most countries of East Africa with refugee camps, contraceptive utilisation ranges from 5.1 percent to 14.6 percent. This is significantly lower than that in other settlements like Jordan and Malaysia which range from 21.4 percent to 34.2 percent (Seyife et al., 2019).

The possible factors that can hinder utilisation of the services indicated that most of these studies have been done among different communities and settings among women in Africa. Whereas, factors for example, age, knowledge, number of children and attitude, are positively related to use of FP. Meanwhile, the community factors were, partner support, culture norms and making decision, are factors related with contraceptive uptake in some studies. The facility factors; the health facility distance, FP clinic environment plus the attitude of the health provider.

Little information has been known on the modern contraceptive's utilisation amidst women in the refugee settings. Hence, the research aimed at assessing the determinants of modern family planning use amongst women who are refugee from South Sudanese aged 15-49 years in Kiryandongo refugee settlement.

2.6 Strategies to address factors influencing family planning utilisation in Uganda

Creating demand for family planning: Uganda has increased number of women who want family planning but are not using. These women who desire to postpone childbearing needs knowledge to address myths and misconceptions in the general population through public visibility and campaigns. It is also important to give correct knowledge regarding contraceptives and their access to promote the health of women and their families.

Addressing disparities related to economic hardship, HIV status, gender, age, and marital conditions. There is need to address these inequities with clear guidelines, and financial support. The poor both in rural and urban continue to

face major challenges of getting equal and accessible services hence requires addressing.

Contraceptive security: there is also needed to maintain a strong and dependable provision of contraceptive products is essential to fulfill clients' requirements, prevent shortages, and guarantee the availability of contraceptives, for improved FP utilisation. ensuring a diverse range of contraceptives is available to address the growing needs of the clients throughout their reproductive period, and also ensures that they fully exhibit their rights and meet their reproductive goals.

Policy and enabling environment: There is no enabling environment for contraceptive delivery in Uganda. This requires a policy focusing on advocating contraceptives at different levels and sections of the government to ascertain respect for the rights of people who would like to access and utilize FP commodities effectively.

Financing: There is low resource allocation for FP services in Uganda. It needs addressing nationally, for improved availability, service delivery and utilisation of family planning services in Uganda.

Stewardship, management, and accountability: good management and governing FP activities at different levels is urgent to ensure that, family planning goals are accomplished. Fora for FP coordination led by the MOH are required. Enhanced vigilance in system fosters better collaboration among partners and MOH, ensuring harmonious implementation of activities. These upgrades will facilitate the supervision, monitoring, tracking, and coordination of government and partner activities at the national level and decentralised levels which are essential in improving management and utilisation of the FP services in Uganda.

2.7 The needs not met for family planning

Contraceptives remains a controversial issue despite all technological advances (Wulifan et al., 2015). A research conducted in LMICs found a 52.9 percent women who need family planning are the ones using at least one type of

contraceptive, this shows that nearly half of the women who are fertile are not using modern contraceptives (Ewerling et al., 2018)

Findings from refugee settings in a multi-country study showed that marital status was significantly associated with unfulfilled need for FP. Women who are in union had a more likelihood of reporting unfulfilled needs than those unmarried. Other factors that included age, with adolescents having a greater odds of unfulfilled need for family planning, and those who never attended school (Tanabe et al., 2017).

The unmet need for FP was found greater in Nakivale where findings showed limited access, yet age and education also affected utilisation of modern family planning methods (Tanabe et al., 2017). Statistics indicate 35 percent utilisation of modern contraception; with a 28 percent women of reproductive age having unfulfilled needs in Uganda (Sserwanja et al., 2021).

2.8 Summary of Literature review

There is need to improvement utilisation of modern family planning services, with more emphasis to humanitarian settings to limit unwanted pregnancies and its consequences. This should be recognised even in crisis settings where massive migration across regions and countries has taken place.

A study carried out among refugee women, asylum seekers settings showed a gap in modern family planning services and recommended further investigations to assess the access gap and developing actionable implementation actions to put in place potential determinants such as lack of childcare, traumatic experiences and language barriers are crucial. Ensuring accessibility remains a main factor delivering modern family planning methods among women in refugee settings even with promotion of these services through offering them free of charge to improve accessibility and utilisation (Inci et al., 2020).

CHAPTER THREE

METHODOLOGY

3.1 Research design

The study conducted was an analytical cross-sectional, which employed mixed methods. The quantitative part used to assess associations of the factors and the level of uptake of contraceptives among refugee women from South Sudanese aged 15-49 years in Kiryandongo refugee settlement. The qualitative method used to explore individual views on access and usage of contraceptives among health workers in Panyadoli Health Center IV in Bweyale Town Council, Kiryandongo district.

3.2 Area of Study

The research was carried out at Panyadoli Health Center IV, in Bweyale Town Council, Kiryandongo district run by the Real Medicine Foundation. It is the main health center serving the population of Bweyale Town Council. Where it is situated in Uganda western region. It is situated nearby Mpobo, and Southeast of Nyarukonge. It has a bed capacity of 95, with a senior medical officer in charge. The facility had outpatient department, Antenatal care, maternity, postnatal and nutrition departments.

3.3 Study population

In the quantitative arm, the study centered its focus on South Sudanese refugee women accessing health services in Panyadoli Health Center IV. The respondents were a subpopulation of the women from South Sudanese refugee of reproductive age, 15-49 years who have given consent to participated in the study. The qualitative arm was collected from four key informants (Family planning focal person, staff working at the ANC unit) to explore challenges faced by health workers in delivering contraceptives and its use among these women.

3.4 Eligibility criteria

3.4.1 Inclusion criteria

Refugee women from South Sudan aged 15-49 years accessing medical services at Panyadoli Health Center IV who consented.

3.4.2 Exclusion criteria

South Sudanese refugee women aged 15 - 49 years who were ill and weak to participate.

3.5 Sampling

Panyadoli Health Center IV purposively selected, for being the major health center, where the inhabitants of Bweyale Town Council access health care, and the main facilities that serve the South Sudanese refugees' communities. Quantitative data collected from selected participants from the exit points of the Outpatient Department, antenatal care clinic, FP clinic. Using a simple random sampling to select study respondent at the different identified data collection points in the health facility. A sampling frame was determined, and then random numbers drawn from the list of patients who attended health services at the facility per day.

Key informants selected using purposive sampling, and their selection based on their experience working in the family planning unit and MCH clinic for qualitative data. Four key informants interviewed after obtaining their consent. These included the Doctor in charge of the health facility, obstetrics, and gynecology, three midwives from the Antenatal unit, postnatal and the family planning units.

3.6 Size of sample determined

Sample size was determined by the Cochrane formula:

$$N = \frac{Z^2 P(1-P)}{d^2}$$

Where N = desired sample size, z @ 95 percent confidence interval = 1.96, p = proportion (28.4 percent) and are margin of error (5 percent).

$$N = \frac{1.96^2 0.284(1-0.284)}{0.05^2}$$

N = 312

Thus, N was 312 participants in the quantitative arm of the study.

3.7 Variables of the study

3.7.1 Dependent variable

The outcome variable is level of uptake of modern contraceptives amongst refugee women from South Sudan of reproductive age group 15-49 years.

3.7.2 Independent variables

Health belief factors: trust in health services, trust in health workers, knowledge about family planning, attitude towards family planning, values concerning health.

Individual factors: perceived threat of high parity, perceived threat of STIs/HIV, source of health information, desired number of children, mode of transport to health facility, main source of health care; private or public facility.

Institutional factors: distance from health facility, cost of family planning, cost of health care, waiting time, available FP outlets, health insurance.

3.8 Data collection tools

Data for the quantitative arm was collected using a semi-structured interviewer administered questionnaire from the women who gave consent. The questionnaire was programmed in the kobo collect tool, which comprised of detailed institutional factors, individual factors, and health belief factors data, which was collected by administering the semi-structured questionnaire.

A key informant guide was used to collect qualitative data from selected participants. It consisted of service delivery, availability of the FP methods, funding of FP, trainings, and barriers to use of family planning within the facility.

3.9 Data Management Plan

The quantitative data collected was retrieved from kobo collect tool and entered in Microsoft excel, cleaned, and checked for completeness and consistence. The data was then exported to a statistical software for analysis. For the qualitative arm recordings were transcribed, which were later used for thematic analysis.

3.10 Data analysis

Quantitative data

Analysis was done using stata software version 14 was used for the quantitative data. After cleaning and checking for completeness and consistence. At the univariate analysis graphs and frequency tables were used to summarise quantitative data. Binary logistic regression was employed to analyze data at bivariate level to establish factors influencing uptake of modern contraceptives amongst South Sudan refugee women of reproductive age in Kiryandongo settlement at a 95 percent confidence interval (CI), and p value of 0.05 percent. Then multivariate logistic regression model was used to determine factors independently influencing utilisation of modern contraceptives among the refugee women.

Qualitative data

Researcher used a deductive and inductive thematic approach for data analysis and the researcher took the following steps during data analysis.

Familiarizing; this was the first step in data analysis. The researcher made sure that she is familiar with the data; this involved listening to the audios from time to time, then transcribing the audios and reading through the text several times.

Coding and Interpretation; the next step was coding and initial interpretation of the data. The researcher used already existing codes and added ones that are

newer. After going through the text, all the data identified by the codes, grouped together.

Generating Themes, this step looked at the codes created, identifying the patterns among them, and coming up with themes. The codes that did not appear a lot and seem vague were discarded. The researcher aimed at creating themes that can potentially tell everything important about the data concerning the aim of the study.

Reviewing the themes, themes were reviewed to ensure that they are useful and are an accurate representation of the data.

3.10.2 Quality control

3.10.2.1 Pretesting

The tools for collecting data were pre-tested in a health facility in Bweyale Town Council, which is not a study area. This allowed for identification of the potential errors and inconsistencies in the data-collecting tool.

3.10.2.2 Training of research Assistants

The data collection involved recruitment of three research assistants. They were trained and monitored during data collection to ensure they collected quality data. The training included use of kobo collect (a mobile data collecting application), study objectives, handling of study participants, probing skills, ethical guidelines on handling research participants.

3.11 Ethical consideration

Ethical approval was obtained from Uganda Christian University Research and Ethics committee (UCUREC-2023-493). From Office of the Prime Minister (OPM) Department of refugees Kampala and Kiryandongo District refugee desk, permission was obtained to gain access to the camp then Panyadoli Health Center IV before the study. The respondents gave a voluntary informed consent obtained

before their participation in the study. Research assistants were introduced to the unit In-charges who permitted data collection process.

Recording unique numbers assured privacy and anonymity of the study participants IDs, interviews were done in an isolated place. This helped in ensuring their comfort and confidentiality. Data collected was stored in a folder encoded with password to maintain confidentiality and avoid any unauthorized access. Permission was sought from the health facility administration prior to data collection from health workers (key informants) in the health center. The data collected shall be destroyed after five years period.

Chapter Four

Results

4.1 Respondents socio-demographic characteristics.

These findings showed that majority of the participants were Christians, 48.08 percent being Protestants and 38.06 percent being Catholics. Most (44.23 percent) belonging to the Nuer tribe. Also (58.97 percent) and (58.33 percent) of the respondents have a primary level of education and earn a monthly payment of less than UGX 100,000 respectively.

These findings also indicated that, most 99.36 percent of the refugee women from South Sudan who took part in this research, had children and the majority (81.09 percent) were married/live together with their partners. Most (38.78 percent) spending a year without having sexual intercourse.

Table 1: Respondents socio-demographic characteristics

<i>Variables</i>	<i>group</i>	<i>Frequency</i>	<i>Percent</i>
<i>Religion</i>	Catholic	120	38.46
	Protestant	150	48.08
	Muslim	4	1.28
	Born Again	14	4.49
	SDA	16	5.13
	Others	8	2.56
<i>Tribe</i>	Bari	11	3.53
	Dinka	69	22.12
	Nuer	138	44.23
	Others	94	30.13
<i>Education Level</i>	Primary	184	58.97
	Secondary	85	27.24
	University	7	2.24
	No formal education	36	11.54
<i>Monthly Income</i>	Less than 100,000	182	58.33
	100,000 - 500,000	128	41.03
	500,001 - 1,000,000	2	0.64
	Above 1,000,000	0	0
<i>Marital Status</i>	Married	253	81.09
	Single	24	7.69
	Divorced/Separated	22	7.05
	Widowed	12	3.85
	Never married	1	0.32
<i>Do you have Children</i>	No	2	0.64
	Yes	310	99.36

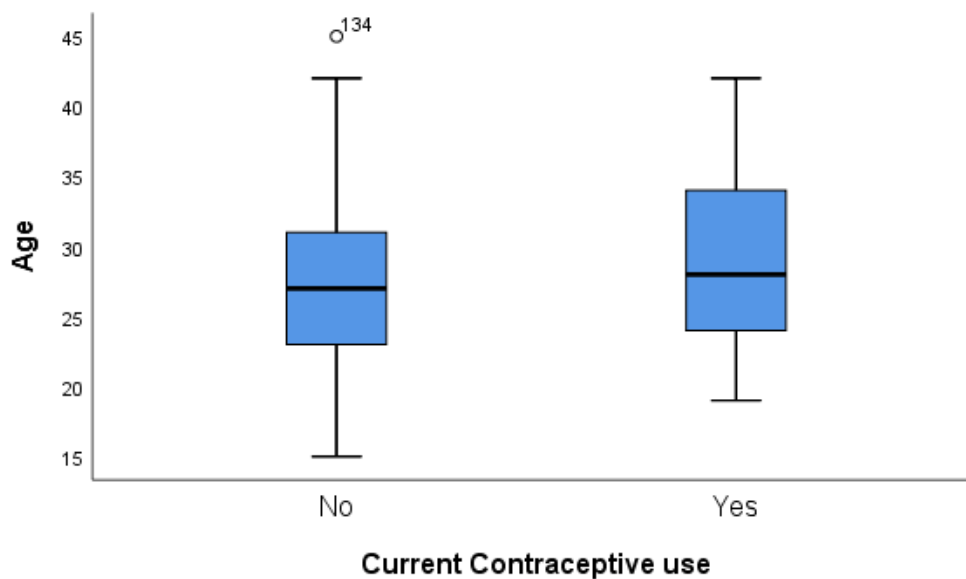
<i>Sexual Intercourse Frequency</i>	Days ago	30	9.62
	Weeks ago	39	12.50
	Months ago	117	37.50
	Years ago	121	38.78
	Never had	5	1.60

The findings also indicate that on average the South Sudanese refugee women have stayed in Uganda for seven years. The average age being 27.9 years, and average number of children being three and their mean age of 30 months (two years and 6 months) for the youngest child per woman.

Table 2: Shows descriptive statistics for continuous variables.

Variables	Minimum	Maximum	Mean	Std. Deviation
Age (n=312)	15	45	27.92	6.43
Number of children (n=310)	1	9	3.4	1.90
Youngest child`s age (months) (n=310)	1	228.0	29.74	34.19
Years stayed in Uganda (n=312)	1	35	6.95	4.43

Figure 2: Distribution of Modern contraceptive use by Age of the women



Those within 25 to 30 years had a higher likelihood to use the modern family planning method as compared to the other age groups.

4.2. Knowledge about contraceptives

Of the 296 South Sudanese Refugee women who had heard about modern contraceptives before, majority, 86.1 percent had knowledge of the IUD method of family planning. The 77.4 percent learnt about modern contraceptives/family planning from the hospital health workers. While 80.7 percent of the women know where to obtain the method of family planning, 80.4 percent point out children spacing as the major benefit derived from using family planning methods.

Table 3: Distribution of women of reproductive age by health belief factors

Variable (n=296)	Have you heard about modern contraceptive methods Before (Yes)
Modern contraceptive method heard about	
IUD	83 (28.0 percent)
Implants	217 (73.3 percent)
Injectable	255 (86.1 percent)
Pill	198 (66.9 percent)
Male condom	58 (19.6 percent)
Female condom	45 (15.2 percent)
Emergency Contraception	1 (0.3 percent)
Others	12 (4.1 percent)
How did you learn about contraceptives/family planning?	
Health worker/hospital	229 (77.4 percent)
Media	10 (3.4 percent)
Community health worker	60 (20.3 percent)
Friends/relatives	59 (19.9 percent)
Outreach	29 (9.8 percent)
Others	12 (4.1 percent)

Know a place where you can obtain a method of family planning.	
Yes	239 (80.7 percent)
No	57 (19.3 percent)
Benefits one can derive from family planning	
Control number of births	136 (45.9 percent)
Children spacing	238 (80.4 percent)
Prevent unplanned/unwanted pregnancy	209 (70.6 percent)
Prevent sexually transmitted infection	23 (7.8 percent)
Enhance sexual performance	3 (1.0 percent)
No significant positive effect doesn't know	20 (6.8 percent)

4.3 Prevalence of modern family planning in Kiryandongo refugee settlement

Of the 296 South Sudanese Refugee women who had heard about modern contraceptives before this study 66 (22.3 percent), are using modern contraceptive method to wait or postpone getting pregnant. All 66 (100.0 percent) knowing where to obtain it, Injectable being the most 33 (50.0 percent) common method of family planning used by them. About 58 (87.9 percent) of these women using modern family planning methods indicated children spacing as the major benefit derived from using family planning.

Table 4: Distribution of respondents' modern FP usage

Variable (n=296)	Currently using a FP method to delay or avoid getting pregnant	Pearson Chi-square
	Yes (n=66)	
Have you heard about modern contraceptive methods before?		Analysis cannot predict the value.
Yes	66 (22.3 percent)	

Know a place where you can obtain a method of family planning.		
Yes	66 (100.0 percent)	0.000*
No	0 (0)	
Benefits one can derive from family planning		
Control number of births	48 (72.7 percent)	0.000*
Children spacing	58 (87.9 percent)	0.083
Prevent unplanned/unwanted pregnancy	57 (86.4 percent)	0.001*
Prevent sexually transmitted infection	11 (16.7 percent)	0.002*
Enhance sexual performance	1 (1.5 percent)	0.644
No significant positive effect doesn't know	1 (1.5 percent)	0.054
Method currently being used		
IUD	0 (0)	
Implants	29 (43.9 percent)	
Injectable	33 (50.0 percent)	
Pill	7 (10.6 percent)	
Male condom	0 (0)	
Female condom	0 (0)	
Emergency Contraception	0 (0)	
Others	0 (0)	
*Significant at $p < 0.05$		

Figure 3: A pie chart showing the distribution of respondents' current use of modern FP method.

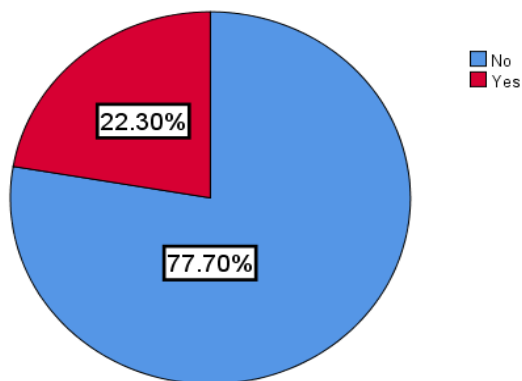


Table 5: Determinants of family planning current use.

Variables (n=66)	Min	Max	Mean	Std. Deviation
Number of months of using current method	1	60	12.379	12.005
Estimate time taken to reach the service provision point (minutes)	3	120	35.076	28.456
Estimate time spent to get a method from a health worker (minutes)	2	120	27.924	27.056

The average number of months of using current contraceptive method among these women is 12.38 months with a standard deviation of 12.01. On average, it takes these women 35.08 minutes and 27.92 minutes to reach the family planning service provision point and to get a method from a health worker with a standard deviation of 28.46 minutes and 27.06 minutes respectively.

4.4 Bivariate analysis

The findings show that, women who are using these modern contraceptive methods (84.85 percent) mainly obtain them from Government hospitals, majority (95.45 percent) indicating that the methods are always available whenever they want it.

Table 6. Bivariate analysis of institutional Factors influencing modern contraceptive uptake among women of reproductive age from South Sudan in Kiryandongo refugee Settlement.

Variable (n=66)	Currently using a FP method to delay or avoid getting pregnant	Pearson Chi-square
	Yes (n=66)	
Source of current modern contraceptive used		
Public sector-Government hospital	56 (84.85 percent)	
Public sector-Government health center	10 (15.15 percent)	
Private medical sector-Private hospital/clinic	1 (1.52 percent)	

Private medical sector-Pharmacy/drug shop	0 (0)	
Others	0 (0)	
Availability of Family Planning services		
Always available	63 (95.45 percent)	0.000*
Usually available	3 (4.55 percent)	
Often available	0 (0)	
Not available	0 (0)	
others	0 (0)	

*Significant at $p < 0.05$

The relationship between individual factors and current uptake of family planning method.

48.5 percent of the women who are currently using modern contraceptives are Catholics while most 53.5 percent of the non-users being Protestants having a significant P-value of (0.000). This study shows that women at the refugee camp who belonged to "other" tribes (Acholi, madi, muru) other than the Bari, Nuer and Dinka use the modern contraceptive most (71.2 percent).

However, the level of education has no significant effect on modern contraceptive methods use since its P-value (0.752) > 0.05 with the women having a primary level of education being the major uses (63.6 percent).

Most, 59.1 percent of the modern contraceptive methods users earn between UGX 100,000 to UGX 500,000 monthly while majority 64.8 percent of the non-users earning less than UGX 100,000 monthly with a significant P-value (0.001).

Table 7. Bivariate analysis of respondents' biodata and the relationship between current uses of family planning method.

Variable (n=296)	Currently using FP method		Pearson Chi-square
	Yes	No	
Religion			0.000*
Catholic	32 (48.5 percent)	81 (35.2 percent)	
Protestant	23 (34.8 percent)	123 (53.5 percent)	
Muslim	0 (0)	3 (1.3 percent)	

Born Again	10 (15.2 percent)	4 (1.7 percent)	
SDA	14 (6.1 percent)	0 (0)	
Others	5 (2.2 percent)	1 (1.5 percent)	
Tribe			
Bari	3 (4.5 percent)	7 (3.0 percent)	0.000*
Dinka	4 (6.1 percent)	61 (26.5 percent)	
Nuer	12 (18.2 percent)	115 (50.0 percent)	
Others	47 (71.2 percent)	47 (20.4 percent)	
Level of education			
Primary	42 (63.6 percent)	134 (58.3 percent)	0.752
Secondary	17 (25.8 percent)	65 (28.3 percent)	
University	2 (3.0 percent)	5 (2.2 percent)	
No formal Education	5 (7.6 percent)	26 (11.3 percent)	
Monthly Income			
Less than 100,000	26 (39.4 percent)	149 (64.8 percent)	0.001*
100,000 - 500,000	39 (59.1 percent)	80 (34.8 percent)	
500,001 - 1,000,000	1 (1.5 percent)	1 (0.4 percent)	
Above 1,000,000	0 (0)	0 (0)	
Marital status			
Married/Living together	54 (81.8 percent)	186 (80.9 percent)	0.287
Single	2 (3.0 percent)	19 (8.3 percent)	
Divorced/Separated	8 (12.1 percent)	14 (6.1 percent)	
Widowed	2 (3.0 percent)	10 (4.3 percent)	
Never married	0 (0)	1 (0.4 percent)	
Currently using a FP method to delay or avoid getting pregnant	Odd ratio	C.I	P> z
Age	1.0405	(0.9955, 1.0875)	0.078
*Significant at p<0.05			

Meanwhile, 93.94 percent of women using and 65.7 percent of them not using say money has never hindered them from using the methods. Most 63.6 percent of the users indicated that they discussed with their spouse about uptake of modern family planning methods while 81.3 percent who are non-users reported to have not discussed with their spouses about its use. Most 47 percent of them making the decision by themselves on the use of the method.

The findings further revealed that majority 68.2 percent of those currently using the method report that their culture encourages the use of modern FP methods, 65.2 percent saying that their community structure encourages uptake of the modern contraceptives.

Majority 97 percent of the women currently using the method reported that the service delivery environment was comfortable from them, most 46 percent saying there was presence of other people during counseling. Most 75.8 percent and 81.8 percent of those currently using the method, received information regarding side effects what to do when experiencing the side effects respectively,

Table 8. Showing bivariate analysis of individual factors and current use of FP

Variable (n=296)	Currently using FP method		Pearson Chi-square
	Yes	No	
Money and modern contraceptive use			
Yes	4 (6.06 percent)	79 (34.3 percent)	0.000*
No	62 (93.94 percent)	151 (65.7 percent)	
Discussion with spouse about the use of modern contraception			
Yes	42 (63.6 percent)	43 (18.7 percent)	0.000*
No	24 (36.4 percent)	187 (81.3 percent)	
Decision maker on modern contraceptive method use			
Self	31 (47.0 percent)		0.000*

<i>Husband</i>	8 (12.1 percent)		
<i>Both husband and wife</i>	27 (40.9 percent)		
<i>others</i>	0 (0)		
<i>Culture vs encouraging modern contraceptive use</i>			
<i>Yes</i>	45 (68.2 percent)	49 (21.3 percent)	0.000*
<i>No</i>	21 (31.8 percent)	181 (78.7 percent)	
<i>Community structure vs encouraging modern contraceptive use</i>			
<i>Yes</i>	43 (65.2 percent)	71 (30.9 percent)	0.000*
<i>No</i>	23 (34.8 percent)	159 (69.1 percent)	
<i>Presence of other people during counselling</i>			
<i>Yes</i>	46 (69.7percent)	62 (27.0percent)	0.000*
<i>No</i>	20 (30.3percent)	168 (73.0percent)	
<i>Comfort of the service delivery environment</i>			
<i>Yes</i>	64 (97.0 percent)	81 (35.2 percent)	0.000*
<i>No</i>	2 (3.0 percent)	149 (64.8 percent)	
<i>Told about side effects with respect to the FP method</i>			
<i>Yes</i>	50 (75.8 percent)	66 (28.7 percent)	0.000*
<i>No</i>	16 (24.2 percent)	164 (71.3 percent)	
<i>Told what to do when experiencing side effects</i>			
<i>Yes</i>	54 (81.8 percent)	68 (29.6 percent)	0.000*
<i>No</i>	12 (18.2 percent)	162 (70.4 percent)	
<i>Told by Health worker about other FP methods you could use</i>			
<i>Yes</i>	54 (81.8 percent)	51 (22.2 percent)	0.000*
<i>No</i>	12 (18.2 percent)	179 (77.8 percent)	

**Significant at p<0.05*

4.3 Multivariate analysis

There was a statistically significant relationship between tribe [P-value (0.001) <0.05)], monthly income [P-value (0.003) <0.05)] of the respondent. Availability of family planning services [P-value (0.035) <0.05)], women who discuss with partners about modern FP [P-value (0.005) <0.05)], self-decision making for the FP method used [P-value (0.023) <0.05)]. Comfortable with the FP service delivery environment [P-value (0.002) <0.05)] and current use of the modern contraceptive method.

Table 9. Showing factors related with modern contraceptives uptake among women of reproductive age, 15 - 49 years from South Sudan.

	Number of observations	=	279
	LR chi2(18)	=	207.90
	Prob > chi2	=	0.0000
Log likelihood = - 48.6859	Pseudo R ²	=	0.6810

Current Using FP Method	AOR	p> z	95 percent CI	
			Lower	Upper
Religion				
Protestant	0.8417	0.7950	0.2298	3.0828
Muslim	1.0000			
Born Again	2.1342	0.4930	0.2448	18.6046
SDA	1.0000			
Others	2.7040	0.6250	0.0500	146.3380
Tribe				
Dinka	0.4953	0.6040	0.0349	7.0302
Nuer	0.4493	0.5100	0.0417	4.8428
Others	13.0303	0.0330	1.2384	137.1028
Monthly Income				
100,000 - 500,000	6.6139	0.0140	1.4660	29.8395
500,001 - 1,000,000	0.9708	0.9890	0.0125	75.2242

<i>Control number of births</i>	3.7648	0.0450	1.0321	13.7332
<i>Prevent unplanned pregnancy</i>	2.0611	0.3310	0.4792	8.8651
<i>Prevent STI</i>	0.8527	0.8630	0.1390	5.2298
<i>Money</i>	1.8709	0.5840	0.1991	17.5799
<i>Family planning service available</i>	0.1373	0.0390	0.0208	0.9057
<i>Discussed with partner</i>	7.9350	0.0040	1.9222	32.7557
<i>Decision maker</i>	0.4339	0.0080	0.2345	0.8030
<i>Culture/tradition encourages</i>	1.7298	0.4870	0.3694	8.1008
<i>Community structures encourages</i>	0.1681	0.0280	0.0341	0.8281
<i>Presence of people during counselling</i>	0.5796	0.4540	0.1389	2.4192
<i>Comfort of the service delivery environment</i>	27.2644	0.0050	2.7064	274.6650
<i>Told about side effects with respect to the FP method</i>	2.1400	0.4130	0.3457	13.2490
<i>Told what to do when experiencing side effects</i>	1.7400	0.5640	0.2655	11.4050
<i>Health worker talked about other FP methods available</i>	0.6881	0.6520	0.1357	3.4901
_Cons	0.0469	0.1360	0.0008	2.6105

The qualitative results revealed accessibility use and barriers to contraceptive methods amongst South Sudanese women of childbearing age

Availability of family planning services; all respondents acknowledged the availability of different types of modern FP services at the health facility.

They revealed that these services are accessible both in the health center and through community outreaches. Common modern family planning methods available include Depo, Sayana press, condoms, combined oral or post coital emergency pills, implants, IUD, and permanent methods like tubal ligation.

“They are available, and we have In-plants, condom, Depo, sayyana press, IUD”

Government and non-governmental organisations, both fund Family planning activities. Commodities are generally sufficient, with occasional stock outs of condoms and IUDs. Referral is made to other facilities in case of stock outs. As shared by one of the key informants.

“The most commodities that we give out we have never faced stock outs for these family planning methods, we have never had stock outs.”

Availability of skilled health workers to give the services; another determinant of utilisation is available trained health workers who can ably provide the necessary information and services to women when they need it. All participants reported that the facility has trained health workers who provide the needed contraceptive services. a respondents said that:

“The health workers are trained and well versed with family planning services.” Participant 1.

Accessibility: accessibility levels for women who needs contraceptives have been a crucial aspect in their uptake. Distance to health facility, cost of services provided and information that women have are important factors in influencing women’s decisions to access family planning services.

- I. Physical; the physical presence and distance to the health facility influence the mothers’ decisions on accessibility of the services, women who stay far away might fail to access services due to longer distances.

“Apart from the beliefs sometimes other causes maybe the distance to the facility might also hinder access to family planning services.” Participant 2.

To support access to family planning services, health workers carry outreaches where they provide family planning services to women who leave far away from health facilities.

“We do community dialogues, outreaches for family planning and sensitizations” Participant 3.

- II. **Affordability:** family planning methods need to be affordable for women and their spouses so that they can easily access them. One of the participants reported that:

“They are available and free of charge” Participant 1.

- III. **Information:** access to information about family planning, its advantages and the specific methods provided at health facilities is very important in raising awareness and creating demand for these family planning services.

“There are some people who get the information maybe on radio when they are teaching about family planning, and they get the interest so.” Participant 1.

Another participant reported that:

“...as long as they have been given the right information about family planning, they always go with any of the methods.” Participant 2.

It is important that health workers provide the right information and make sure that it reaches the targeted audience to raise the usage of family planning services.

“We need to continuously provide information to the community, so we create sensitization, health talks at all times and whenever we get a chance or provide services.” Participant 3.

Acceptability: it’s important that communities have the high levels of acceptability for family planning as a concept; several efforts need to be made to ensure that women have enough knowledge about family planning and the benefits it has on their health and wellbeing of their families. Acceptability is influenced by several factors including:

- I. Knowledge and attitudes of women regarding family planning and the services; having knowledge about the methods and their advantages to the women in the community have, significantly influences family planning services uptake thus it’s important that health workers ensure

that mothers are knowledgeable about family planning hence ensuring positive attitudes towards the services.

“Women in the camp are aware of the services provided even outside of the camp in the communities.” Participant 1.

It is important that communities receive the necessary information about family planning and the methods used to make informed decisions.

“We even go to the communities and give them these trainings especially on the methods.” Participant 2.

Another participant informed that:

“We do community dialogues, outreaches for family planning and sensitizations. Follow-ups, during antenatal its part of health packages, postnatal and any other opportunities we get we talk about family planning.” Participant 3.

Culture and Modern Family planning Utilisation

Perception of services users and providers, myths, and cultural beliefs regarding family planning are important determinants of contraceptive use. The negative myths that surround family planning services in communities tend to push women away from accessing them. One of the participants noted that:

“...some may say they told them family planning causes cancer which is not documented or the in-plants or coil that they move up to the heart, so all those misconceptions put scare among women in the community” Participant 3.

Family planning services uptake are determined by cultural/religious norms and beliefs that discourage the concept of modern contraceptives. Women from communities or cultures that discourage accessibility to modern family planning services end up shunning their service. All the participants in the study noted that cultural beliefs are strong hindrance to access of the services among the refugee women from South Sudan in the camp.

“Most of our people have those beliefs and myths about family planning. For instance, a client will come; you counsel and then after will tell you that I have this belief that if I use family planning it disappears in my body”

Participant 2.

In many cultures, men are the heads of the family, and all the major decisions should be taken by them thus the perceptions and attitudes of men regarding these services is crucial in influencing family planning uptake.

“Most women in the settlement, their husbands are in Juba and by culture for them most of the decisions must be taken by men even if it concerns the women themselves” Participant 3.

In summary, while there are efforts to provide accessible family planning services, there are challenges related to awareness, cultural beliefs, and myths.

Chapter Five

Discussion

5.0. Introduction

This chapter focusses on elaborating on the analysis of the study results based on the specific research objectives. It also considers the findings in relation to other relevant studies discussed in the literature review.

5.1 Current use of FP

The results show that a quarter of the women of reproductive age from South Sudan who participated in the study were using modern contraceptives. This finding is supported with key informant interview finding, which showed a decrease in uptake of family planning services amidst refugee women.

“Uptake is low (poor) because they are not interested, they believe they have their natural way. Usually, a woman takes two years before meeting the husband to conceive.”

Injectable was preferred method used, then implants followed and pills. However, this contraceptive utilisation rate is way far compared to their country-of-origin South Sudan with six percent (UNFPA, 2023). But nevertheless, it is below the sustainable development goal (SDG) target of 75.7 percent (WHO, 2019) and also below the Ugandan mCPR which is at 38 percent nationally with an unmet need for FP at 22 percent (UDHS, 2022).

The results from this research are in agreement with the one carried out in Adjumani district which revealed a mCPR of 29 percent among the refugees (Achola & Atuyambe, 2022) with male condom being the most frequently used followed by injectables and implants. This was slightly higher than in our study, which could be due to more high information shared, with the refugees in Adjumani compared to Kiryandongo.

A research was carried out amidst married Somali refugee women around Kampala revealed a prevalence of 29 percent which was also higher than that of their country of origin (Abdulahi et al., 2020). Another was done by Tanabe et al 2017 among refugees in different countries revealed that 26.2 percent uptake rate for modern contraceptives among.

Difference in this study finding could be due to the availability of organisations conducting integrated reproductive health outreaches, government health centers and community-based distributions within the refugee settlement. From the sociodemographic information of the participants, the settlement had a mixed ethnicity with majority from the Nuer. This tribe is known for not using contraceptives methods. Hence, other tribes like Acholi, Madi had a higher likelihood of using contraceptives methods as compared to the Nuer. This is supported with the key informant interview of the in charge who said, “... *the women say they have their natural way of birth control*”.

Distribution of modern contraceptive uptake was, women of 25 - 30 years of age had a greater chance of uptake as compared to other age groups. This shows that this age category is in position of making informed decision on the matters that concerns them. A research done at Amhara region Ethiopia found out that age group from 25-29 had 32.1 percent, had a higher likelihood of using family planning methods than the other groups (Meselu et al., 2022) and this was similar to our findings. Similarly also the findings carried out by (Tanabe et al., 2017) showed adults aged 25 to 29 having a greater chance of modern contraceptive uptake, and more aware of the methods than the teenage girls aged 15 to 19 years.

Majority of the women currently using, and the non-users of modern contraceptive methods say money has never hindered them from using the methods. This shows that services at the health center are provided for free and this is also supported by the key informants' interviews that revealed that government funds the services, which is also supplemented by some non-governmental organisations. “*The services are available and free of charge.*” Participant 1.

“*Ministry of health is funding most of the services we are getting. Other partners just come in to support but the supplies, commodities for FP are MOH.*”

Most of the users indicated that they discussed about the uptake of family planning with their spouse while majority of non-users reported to have not discussed with their spouse about its use. This reveals that sharing information about family planning with the partner encourages usage.

About half of the women make decision by themselves on the use of a FP method. This however is different from the findings carried out by Achola et al 2021, which showed making decision jointly being related with the uptake of contraceptives.

Our research findings showed that infrequent sex due to the absence of their spouses in the settlement prevent uptake of modern contraceptives. This is in line with the KIs interviews that reported that, *“Most of the women here, their husbands are in Juba and by culture for them most of the decisions must be taken by men even if it concerns the women themselves.”* Participant 3.

This study also showed that the South Sudanese women deny family planning methods uptake due to the need t to replace their loved ones they lost during the time of crisis. This is supported with a study that revealed that a significant number of refugees choose not to utilize family planning due to the need of having big families to replace their loved one who died during their displacement (Singh et al., 2022).

5.2 Determinants associated with utilisation of modern contraceptives.

Our findings were that, those who belong to other tribes' category had a 1.24 significantly high chance of using modern birth control methods than those belonging to Bari, Nuer or Dinka tribes. This relates to the anecdotal reports that shows that these tribes are not using modern family planning. Although a study conducted in India among tribal women revealed that the Hindu women had a higher percent of utilisation as compared to other tribes (Panda et al., 2023).

In addition, the women earning a monthly Income between UGX 100,000 to 500,000 have 6.61 odds of using the method as compared to those earning less than UGX 100,000. Our findings are in line with several studies. Research done in Pakistan, found out that contraceptive use increases by the level of wealth. Those with middle income or high income class had a higher likelihood of using contraceptive than the less wealthy one (Kamal et al., 2021). This factor however in this study should be interpreted with caution as the KI reports that services are for free. They still can use money for buying contraceptive methods especially during stock out.

The women who said controlling number of births is the major benefit of using the method have a significantly 3.76 odds of using the method as compared to those who have different reasons for using the method. Similar findings were reported in a done in Ethiopia which showed that women who had greater number of births were more likely to utilise modern contraceptives (Kebede et al 2023). Implying that those who know the benefits of contraceptives had a higher likelihood of using them. There is therefore a need to create more awareness to encourage women to utilise modern family planning methods.

Women who discussed with partner have a significantly 7.94 odds of using the method as compared to those who do not t discuss with their partner. This findings are in line with (Tanabe et al., 2017) who found out that refugees who shared ideas on family planning with the partners had a high chance of using the methods than those who did not share.

This study found out that, women receiving the FP service delivery in a comfortable environment has a 27.26 significant chance of using the method as compared to their counterparts. Similar findings in Ethiopia revealed that women were satisfied with contraceptive services provided in a private place with enough visual aid (Anne et al., 2023). Another study in Mexico also revealed a high degree of satisfaction from participants having few or no disturbances during service delivery (Slater et al.2018). Therefore, this finding tells us that good communication and maintaining privacy during family planning delivery improves the uptake of contraceptive methods by women of childbearing age.

Self-decision maker had 0.4339 lesser odds of using the methods. This result means making self-decisions for family planning use is a protective factor. This is however contrary to many studies that shows men remains key decision makers around family planning methods usage (Kwawukume et al., 2022).

The availability of family planning service had 0.14 lesser odds to use the modern contraceptive method. This implies that availability of the services alone could not make these women to use contraceptives because it is a protective factor.

Women living in community structures that encourage modern FP use have 0.17 significant odds of using the method as compared to those living in community structures that discourage its use.

This study had some limitations, which included this was a study conducted at appoint in time therefore, causal relationship was founded. This result could only be used for Kiryandongo refugee settlement and could not be generalized to other refugee settlements.

Chapter Six

Conclusion and Recommendations

Conclusion.

Our research finding showed a low utilisation of modern contraceptive methods among the refugee women from South Sudan of childbearing age group, as more than half refugees who participated in the study reported not using compared to the current family planning utilization in Uganda. The main determinants for using the methods were being from other tribes not the Bari, Nuer and Dinka, income level, knowing the benefit of family planning as controlling number of births, discussed with husband, and receiving the services in a comfortable environment. However, other factors like self-decision making, family planning availability and living in community structures that encourage family planning usage had lesser odds and considered protective factors.

Recommendations.

There is need to improve the outreaches within the settlement to promote awareness on the advantages of FP, and also to deliver better FP services to the other tribes within the refugee settlement to enable them realise the importance of FP in controlling number of births.

Counselling couple at the health center and the community for the refugees should be encouraged, and put to practice in order to promote joint decision making for FP. Empowering women in the refugee settlement economically and providing them with access to family planning methods.

Decision makers at the district health unit should modify existing policies to encourage these women to use family planning methods, as they are less likely to use them.

At the health center IV, there is also a need to ensure that the environment where these women receive the family planning services should be comfortable and level of privacy maintained as this encourages the women to come for the service.

To improve uptake, continuous education, community involvement, and addressing cultural misconceptions and myths are crucial. Strengthening the healthcare system, including infrastructure and staffing, are highlighted to be essential for effective service delivery and maternal care.

REFERENCES

- Abdulahi, M., Kakaire, O., & Namusoke, F. (2020). Determinants of modern contraceptive use among married Somali women living in Kampala; A cross sectional survey. *Reproductive Health, 17*(1), 1-9. <https://doi.org/10.1186/s12978-020-00922-x>
- Abu-Laban, Y. (2021). Re-defining the international refugee regime: UNHCR, UNRWA, and the challenge of multigenerational protracted refugee situations. In *Research Handbook on the Law and Politics of Migration* (pp. 310-322). Edward Elgar Publishing.
- Achola, R., & Atuyambe, L. (2022). *Factors Associated with Decision Making about Family Planning Use by Refugee and Host Population in Adjumani District , West Nile , Uganda ; A Cross Sectional Study.* 1-18.
- Anne, D. G., Taderegew, M. M., Bizuwork, Y. G., Zegeye, B., & Negash, W. (2023). Assessment of client satisfaction with family planning services and influencing factor in Southern Ethiopia: a community-based cross-sectional study. *Journal of Public Health (Germany), 31*(7), 1091-1099. <https://doi.org/10.1007/s10389-021-01640-9>
- Asiimwe JB, Ndugga P, Mushomi J, & Menyenyetozi JP. (2014). Factors associated with modern contraceptive use among young and older women in Uganda; a comparative analysis. *BMC Public Health, Sep 8*(14), 926.
- Bakesiima, R., Cleve, A., Larsson, E., Tumwine, J. K., Ndeezi, G., Danielsson, K. G., Nabirye, R. C., & Kashesya, J. B. (2020). Modern contraceptive use among female refugee adolescents in northern Uganda: Prevalence and associated factors. *Reproductive Health, 17*(1), 1-9. <https://doi.org/10.1186/s12978-020-00921-y>
- Bellizzi, S., Sobel, H. L., Obara, H., & Temmerman, M. (2015). Underuse of modern methods of contraception: underlying causes and consequent undesired pregnancies in 35 low-and middle-income countries. *Human Reproduction, 30*(4), 973-986.

- Bukuluki, P., Kisaakye, P., Mwenyango, H., & Palattiyil, G. (2021). Adolescent sexual behaviour in a refugee setting in Uganda. *Reproductive Health*, 18(1), 1-11. <https://doi.org/10.1186/s12978-021-01181-0>
- Casey, S. E. (2015). Evaluations of reproductive health programs in humanitarian settings: A systematic review. *Conflict and Health*, 9(1), 1-14. <https://doi.org/10.1186/1752-1505-9-S1-S1>
- Curry, D. W., Rattan, J., Huang, S., & Noznesky, E. (2015). Delivering high-quality family planning services in Crisis-Affected Settings II: Results. *Global Health Science and Practice*, 3(1), 25-33. <https://doi.org/10.9745/GHSP-D-14-00112>
- District, L., & Government, L. (2018). *LAMWO DISTRICT Family Planning - Costed Implementation Plan 2018/19 - 2022/23. June.*
- Ewerling, F., Victora, C. G., Raj, A., Coll, C. V. N., Hellwig, F., & Barros, A. J. D. (2018). Demand for family planning satisfied with modern methods among sexually active women in low- and middle-income countries: Who is lagging behind? *Reproductive Health*, 15(1), 1-10. <https://doi.org/10.1186/s12978-018-0483-x>
- Inci, M. G., Kutschke, N., Nasser, S., Alavi, S., Abels, I., Kurmeyer, C., & Sehouli, J. (2020). Unmet family planning needs among female refugees and asylum seekers in Germany - is free access to family planning services enough? Results of a cross-sectional study. *Reproductive Health*, 17(1), 1-9. <https://doi.org/10.1186/s12978-020-00962-3>
- Ivanova, O., Rai, M., & Kemigisha, E. (2018). A systematic review of sexual and reproductive health knowledge, experiences and access to services among refugee, migrant and displaced girls and young women in Africa. *International Journal of Environmental Research and Public Health*, 15(8), 1-12. <https://doi.org/10.3390/ijerph15081583>
- Kamal, A., Malik, S., Batool, H., & Rasul, A. (2021). Influence of Individual and Community-Level Associates of Contraceptive Use in Pakistan: a Multi-Level Mixed Effect Analysis (Pdhs 2017-18). *Humanities & Social Sciences Reviews*,

9(3), 764-775. <https://doi.org/10.18510/hssr.2021.9375>

Kaniki, F. R. (2017). Factors influencing the use of modern contraceptive methods among rural women of child bearing age in the Democratic Republic of the Congo. *Journal of Family Medicine and Primary Care*, 6(2), 169-170.

<https://doi.org/10.4103/jfmmpc.jfmmpc>

Kwawukume, S. A. K., Laar, A. S., & Abdulai, T. (2022). Assessment of men involvement in family planning services use and associated factors in rural Ghana. *Archives of Public Health*, 80(1), 4-11.

<https://doi.org/10.1186/s13690-022-00822-5>

LaMorte, W. W. (2019). The health belief model. *Boston University School of Public Health*.

Meselu, W., Habtamu, A., Woyraw, W., & Tsegaye, T. B. (2022). Trends and predictors of modern contraceptive use among married women: Analysis of 2000-2016 Ethiopian Demographic and Health Surveys. *Public Health in Practice*, 3, 100243.

Mona Almalik, 1, & Sultan Mosleh 2 and Issa Almasarweh 3. (2021). World Health Organization.. - World Health Organization. *Who*, 2019(December), 5.

<https://www.who.int/en/news-room/fact-sheets/detail/arsenic>

Mutumba, M., Wekesa, E., & Stephenson, R. (2018). Community influences on modern contraceptive use among young women in low and middle-income countries: A cross-sectional multi-country analysis. *BMC Public Health*, 18(1), 1-9.

<https://doi.org/10.1186/s12889-018-5331-y>

Obwoya, J. G., Wulifan, J. K., & Kalolo, A. (2018). Factors Influencing Contraceptives Use among Women in the Juba City of South Sudan. *International Journal of Population Research*, 2018, 1-7.

<https://doi.org/10.1155/2018/6381842>

Ochen, A. M., & Primus, C. (2022). Family planning uptake and its associated factors among women of reproductive age in Uganda: an insight from the Uganda Demographic and Health Survey 2016. *MedRxiv*.

<https://www.proquest.com/working-papers/family-planning-uptake-associated-factors-among/docview/2708866219/se-2>

- Panda, S. N., Barik, M., Acharya, A. S., Kanungo, S., & Pati, S. (2023). Spatial distribution and factors influencing modern contraceptive practice among tribal married women in India: evidence from National Family Health Survey 5 (2019-2021). *BMC Women's Health*, 23(1), 1-11.
- Prata, N., Bell, S., Fraser, A., Carvalho, A., Neves, I., & Nieto-Andrade, B. (2017). Partner support for family planning and modern contraceptive use in Luanda, Angola. *African Journal of Reproductive Health*, 21(2), 35-48.
<https://doi.org/10.29063/ajrh2017/v21i2.5>
- Seyife, A., Fisseha, G., Yebyo, H., Gidey, G., & Gerensea, H. (2019). Utilization of modern contraceptives and predictors among women in Shimelba refugee camp, Northern Ethiopia. *PLoS ONE*, 14(3), 1-11.
<https://doi.org/10.1371/journal.pone.0212262>
- Singh, N. S., Prabhakar, P., Ssali, A., Namakula, S., Namatovu, J., Kapiti, R., Kasiri, J., & Mounier-Jack, S. (2022). "They will say you want to make their home die": A mixed methods study to assess modern family planning use in partnered South Sudanese refugee and host populations in Northern Uganda. *PLOS Global Public Health*, 2(6), e0000348.
<https://doi.org/10.1371/journal.pgph.0000348>
- Sserwanja, Q., Musaba, M. W., & Mukunya, D. (2021). Prevalence and factors associated with modern contraceptives utilization among female adolescents in Uganda. *BMC Women's Health*, 21(1), 1-7. <https://doi.org/10.1186/s12905-021-01206-7>
- Starbird, E., & Norton, M. (2020). Investing in Family Planning : Key to Achieving the Sustainable Development Goals. *PubMed Central*, 4(2), 191-210.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4982245/>
- Tanabe, M., Myers, A., Bhandari, P., Cornier, N., Doraiswamy, S., & Krause, S. (2017). Family planning in refugee settings: findings and actions from a multi-

country study. *Conflict and Health*, 11(1), 1-12.

UDHS. (2022). *(Udhs) 2022 Key Findings. September*. www.ubos.org

UNFPA. (2023). Population Sexual and Reproductive Health Education Gender, Rights, and Human Capital Harmful Practices. *United Nations Population Fund*.

Utomo, B., Suchaya, P. K., Romadlona, N. A., Robertson, A. S., Aryanty, R. I., & Magnani, R. J. (2021). The impact of family planning on maternal mortality in Indonesia: what future contribution can be expected? *Population Health Metrics*, 19(1), 1-13. <https://doi.org/10.1186/s12963-020-00245-w>

Wulifan, J. K., Brenner, S., Jahn, A., & De Allegri, M. (2015). A scoping review on determinants of unmet need for family planning among women of reproductive age in low and middle income countries. *BMC Women's Health*, 16, 1-15.

APPENDICES

Appendix I: A map showing the location of Bweyale.



Appendix II: Consent Form

Name of assessor: Kitale Estella John

Name of Institution: Uganda Christian University

Name of Proposal and version: Utilisation of modern family planning methods among South Sudanese women aged 15-49 years in Kiryandongo refugee Settlement.

PART I: Information Sheet

Introduction

I am Kitale Estella John, a student at Uganda Christian University. I am carrying out a study on utilisation of modern family planning methods among South Sudanese women aged 15-49 years in Bweyale refugee Settlement. I am going to give you information regarding the study, and invite you to participate.

There may be some words that you do not understand, please ask me to stop so that we go through all the information, to make clarity where you do not understand. If you have questions later, you can still consult me for any further explanation.

Purpose

Uganda ranks as the third largest refugee hosting nation globally, largest in Africa, with more than 1.3 million refugees from South Sudan, the Democratic Republic of Congo, and Burundi. Most women in Uganda desire to limit or delay pregnancy. They however have no access to consistent use of modern contraceptives. In 2016, twenty eight percent of the married women were notably faced by unmet need for family planning services; even though one in every three women desires to space or stop childbirth. This results challenges including unwanted pregnancies and poor maternal-child outcomes. Under-utilisation of family planning services accounts for 20 percent of maternal deaths; thus, the need for improved quality of contraception services for better sexual and reproductive health outcomes. Unintended pregnancies not only pose many health risks and heavy burden of healthcare costs but also increase the magnitude of morbidity and mortality among pregnant women and their children with increasing parity amidst poor birth

spacing. Elimination of unintended births and good birth spacing can help nations reap better environment, agriculture and social amenities. Consistent use of modern family planning improves survival and quality of life among women of childbearing age. It reduces maternal and infant deaths through spacing pregnancies, reducing adolescent pregnancies, and downsizing overall fertility. This research will thus aim at assessing utilisation of modern family planning methods among South Sudanese refugee women aged 15-49 years in Bweyale refugee camp.

Participant selection

The study will focus on South Sudanese refugee women aged 15-49 years in Bweyale refugee camp.

Voluntary Participation

Your decision to participate in this study is completely voluntary. It is your choice whether or not to participate in this study. If you choose not to participate, none of the services and support you receive from the facility will be affected in any way.

Procedures

There is no procedure that will cause pain or discomfort to you. You will be given a questionnaire with a set of questions. Please feel free to attempt all questions that you are comfortable with.

Duration

After completing filling this form (questionnaire) with you, no further assessments in relation to this study that will be required from you.

Benefits

If you participate in this study, you will have no immediate benefits but your participation will contribute to formulation of effective strategies for to assess accessibility and utilisation of modern family planning methods among South Sudanese refugee women aged 15-49 years in Bweyale refugee camp.

Confidentiality

The information that we collect from this study will be kept confidential. Identifying information (for example, names) about you will not be captured at any point. All other information that will be collected from the study will be put away and no-one but the researchers will be able to see it. Any information about you will have a log number on it instead of your names. Data collected will be locked up and kept safe. This data will be destroyed once the data has been used to serve the purpose of the study.

Sharing of the results

The knowledge and understanding that we get from this study will be shared with the health center administration as well as the administration of Bweyale refugee camp. However, confidential information will not be shared.

Right to Refuse

You do not have to agree to take part in this research if you do not wish to do so. Refusing to participate will not compromise the support you get from the health facility at all.

Who to Contact?

If you have any questions, you may ask them now or later, even after the study has started. If you wish to ask questions later, you may contact the following: **Kitale Estella John at 0779533506 and 0753422910.**

This proposal has also been reviewed and approved by Uganda Christian University school of public Health Research Ethics Committee, to make sure that study participants are protected from harm.

I hereby consent to participate in this study

Participant Signature only.....

Appendix III: QUESTIONNAIRE

Utilisation of modern family planning methods among South Sudanese Refugee women aged 15-49 years in Kiryandongo Refugee Settlement.

Participant ID number _____ Interviewer: _____

Date of interview: __day/ __month/ __year Time of interview _____

Village/Zone where the interviewee came from: _____

Participation consent check:

The respondent agrees to interview. Signature.....

Instructions

Interview each eligible, consenting women of reproductive age 15-49 years individually and in private.

Tick or write only one response to each question, unless otherwise instructed.

If a participant refuses to provide an answer to a question, do not tick any response option and hand write “Refused to reply”.

SECTION ONE: SOCIO-DEMOGRAPHIC CHARACTERISTICS

1.1 How old are you?years

1.2 What is your religion?

Catholic Protestant Muslim Born Again

SDA Other (specify).....

1.3 What is your tribe?

Bari Dinka Nuer Others specify.....

1.4 What is your highest level of education?

Primary Secondary University No formal education

1.5 What is your monthly income?

Less than 100,000/- 100,000-500,000 500,000-1000,000

More than 1,000,000

1.6 What is your marital status?

Married/living together Single Divorced/separated

Widowed Never married

1.7 Do you have Children?

Yes No

If yes number of children

What is the age of your youngest child?

1.8 Would like to ask you about recent sexual activity. When was the last time you had sexual intercourse?

Days ago Weeks ago Months ago Years ago

Never had

1.9 How long have you stayed in Uganda?years

SECTION TWO: HEALTH BELIEF FACTORS

2.1 Have you heard about modern contraceptive methods before?

Yes No

2.2 Which modern contraceptive method did you hear about?

IUD Implants Injectable Pill Male Condom Female condom Emergency contraception

Other modern methods (Specify).....

2.3 How did you learn about contraceptives/family planning?

Health worker/ hospital Media Community health worker Friends/ relatives Outreach

Others (specify) _____

2.4 Do you know a place where you can obtain a method of family planning?

Yes No

2.5 What are the benefits you think one can derive from family planning?

(You can tick more than one)

Control number of birth Children spacing Prevent unplanned/unwanted pregnancy Prevent sexually transmitted infection Enhance sexual performance No significant positive effect doesn't know

2.6 Are you or your partner currently doing something or using any method to delay or avoid getting pregnant?

Yes No

2.7 Which method are you currently using? (Tick all appropriate responses).

IUD Implants Injectable Pill Male Condom

Female condom Emergency contraception Other modern methods

2.8 Since what month and year have you been using (CURRENT METHOD) now without stopping?

PROBE: For how long have you been using (CURRENT METHOD) now without stopping?

Month..... Year

SECTION THREE: INSTITUTIONAL FACTORS

3.1 You first started using (CURRENT METHOD). Where did you get it at that time?

PROBE: To identify the type of source. If unable to determine if public or private sector, write the name of the place. (NAME OF THE PLACE)

Public sector: Government hospital Government health center Outreaches

Private medical sector: Private hospital/clinic Pharmacy/drug shop

Private Doctor Outreach Another private medical sector (specify)

Other source: Shop Friend/relative Other (specify)

3.2 How long is the distance to the contraceptive distribution point where you picked the method?

Estimate by time taken to reach the service provision point.....

3.3 For how long does it take you to get a method from the health worker?
(Waiting time) ***Estimate the time spent to the FP delivery point***

..... (hours and minutes)

3.4 Has money ever hindered you from the use of modern contraceptives?

Yes No

3.5 Are the family planning services available? (Resource and commodities)

Always available Usually available Often available

Not available Others _____

SECTION FOUR: INDIVIDUAL FACTORS

4.1 Have you discussed with your spouse/partner about the use of modern contraception at any time?

Yes No

4.2 Who made the decision for you to use the modern contraceptive method?

4.3 Who supported you to use modern contraceptive methods?

Husband/ partner Peer/friend None

Others _____

4.4 Does your culture/ traditions encourage the use of modern contraceptive method?

Yes No

4.5 Do the community structures encourage the use of modern contraceptive methods?

Yes No

4.6 When you were receiving counselling, were other people present?

Yes No

4.7 Do you think that the environment where the services were given to you was comfortable?

Yes No

4.8 At that time, were you told about side effects or problems you might have with the method?

Yes No

4.9 Were you ever told by a health or a family planning worker about side effects or problems you might have with the method?

Yes No

4.10 Were you told what to do if you experienced side effects or problems?

Yes No

4.11 Were you ever told by a health or family planning worker about other methods of family planning that you could use?

Yes No

Thank you for your time to talk to me today. The information you have shared with me will be helpful. Our team will keep all what you shared confidential. Do you have any questions that I can pass to the in charge of the study?

Interview comments:

.....
.....

.

Appendix IV. KIs Guide for family planning.

Dear Respondent,

I am Kitale Estella John, MSc student from Uganda Christian University and my colleague..... conducting research on family planning use among South Sudanese of reproductive age in Bweyale refugee Settlement. This research will help us inform decision-makers on how best to improve family planning utilisation within the camp.

You have been selected to participate in this study. The findings of this study will be used strictly for academic purposes and will be treated with great confidentiality. Your active participation and accurate information will help us determine the level of family planning utilisation among South Sudanese in the camp.

Thank you for choosing to participate in this study.

Participant’s Consent.

Respondent signature..... Date

Interviewer’s signature.....Date.....

1.0 Service delivery

1.1 Where do women get family planning services from in the camp?

1.2 What are the common modern family planning methods available in the facility?

1.3 Are these services accessible whenever the women need them?

2.0 Training

2.1 Who provides contraceptives to the clients?

2.2 Have they received any training on contraceptives?

2.3 Are there organisations that provide the same services? If yes mention

3.0 Commodities

3.1 Who is currently funding family planning activities in the health facility?

3.2 How do you feel about the level of funding for family planning that is provided? Is it too little, enough, or too much?

3.3 Are there cases of the commodities being stockout, which commodities are usually stocked out?

3.4 Where do the refugee go for family planning services in case of stockouts?

4.0 Awareness

4.1 Are the women in the camp aware of the services being provided in the health facility?

4.2 How would you describe the use of family planning among the South Sudanese refugee?

Too high, high, just right, low, too low

Why? _____

4.3 On a scale of 1 to 10, how important is family planning in reducing maternal mortality with 1 being not very important and 10 being very important?

4.4 In your own view, what are the barriers to people in the camp not wanting to use family planning services?

4.5 Do you know of any reason why South Sudanese women may not want to use family planning services?

4.6 In your own view, do you think providing family planning services to these women should be a priority? Yes No

Why _____

4.7 From what you know or have heard, are there couples who would like to use the modern method of family planning, but are not currently using any method?

Yes No Don't know

4.8 An important issue is a maternal death (deaths related to pregnancy or childbirth). What would you say are the 2-3 most important causes of maternal deaths in the health facility?

a. _____

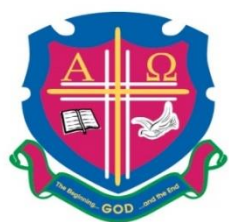
b. _____

c. _____

d. Don't know

4.9 Are there actions that should be taken to help reduce the number of women who dies during pregnancy or childbirth?

Appendix IV: Post Viva Form



UGANDA CHRISTIAN UNIVERSITY

A Centre of Excellence in the Heart of Africa

UGANDA CHRISTIAN UNIVERSITY

SCHOOL OF RESEARCH & POSTGRADUATE STUDIES

DISSERTATION CORRECTION COMPLIANCE REPORT BY THE CANDIDATE (POST VIVA FORM)

Date: May 22, 2024

Name of Candidate: Kitale Estella John Kasiano Reg. No: RJ21M21/211

Title of Dissertation: DETERMINANTS OF MODERN FAMILY PLANNING UTILISATION AMONG SOUTH SUDANESE REFUGEE WOMEN AGED 15-49 YEARS IN KIRYANDONGO REFUGEE SETTLEMENT

S N	COMMENTS BY EXTERNAL EXAMINER	ACTION TAKEN	INDICATOR
1	The candidate should make operational definitions for family planning and modern family planning methods as used in this study.	The definitions for family planning and modern family planning methods are included.	Page XI
2	There are many topographical and grammatical errors throughout the dissertation that should be corrected.	This has been addressed	As seen in the whole document
3	The abstract is well arranged however the grammatical errors should be corrected.	This is addressed as seen in the preliminary pages	Page XII
4	We need an objective for the qualitative work.	This has been included in the objectives	Page 4

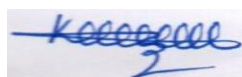
5	The candidate should state the theoretical frame work for the qualitative component		
6	The background information should include a paragraph on the consequences of the high unmet need for family planning among Sudanese refugees living in Uganda.	This has been incorporated in the second paragraph of the background information	Seen in page 1
7	The problem should aim to show why family planning use is necessary among refugees.	The problem is improved and added	Page 4
8	The candidate should revise the methods section and indicate that this was a mixed method study with both qualitative and quantitative approaches and include a detailed description of the sampling procedure and study procedure.	This is worked on; the study was both quantitative and qualitative	Page 17,18,19
9	The candidate should state the study design, sample size and sampling procedure for the qualitative component of the study	This has been incorporated	Page 18
10	How were the participants identified? How were they approached? Who assessed them for eligibility, consented them and enrolled them into the study. Did the candidate enlist the help of a social scientist at qualitative data collection and analysis?	The researcher assessed the KI based on the experience of working in the health center, they first consented before the study.	Page 18

SN	COMMENTS BY VIVA VOCE PANNEL	ACTION TAKEN	INDICATOR
1	What is the problem that South Sudanese in Kiryandongo that makes you focus on that problem? What triggered you to study these particular people. The problem should come out very clearly!	The problem has been revised and additions put	Page 4
2	Factors like Culture and tribe was one of the issues, but there is nothing in the recommendations. How did they influence your study. This should come out clearly	These has been clarified in the last recommendation.	Page 45

3	Please incorporate the stake outs that the money factor affects. This should be added into your work.	It has been incorporated in the discussion section.	Page 42
4	What is the key message or recommendation you feel the research would be valuable to the people or the place you collected data from?	This contraceptive prevalence rate shows that there is a slight improvement in the utilization of modern family planning methods as compared to their country of origin. Although its below the Uganda's level of 38.5. Therefore, continuous awareness and counselling should be practiced.	Page 45
5	What is the type of family planning did you focus on...If it is modern, which one is that? The focus should be clear on which method of family planning you studied!	The focus was on modern family planning methods, which included both short and some long acting. However, most participants were using only implants, injectables and pills.	Page 27
6	Where the refugees moved the utilization is higher than where they came from, please see how to handle this in your discussion. What message are you communicating after this. Therefore, what can be done to ensure it reaches the Ugandan average	This is included in the discussion. It shows that South Sudanese refugee in Kiryandongo have slightly improved in family planning use hence continuous education about the benefits of family planning methods is crucial.	Page 39

Kitale Estella John Kasiano

Candidate's Name



Signature

Namyalo Josephine

Supervisor's Name



Signature