THE LEVEL AND FACTORS ASSOCIATED WITH THE UPTAKE OF LONG-ACTING REVERSIBLE CONTRACEPTIVE METHODS AMONG WOMEN OF REPRODUCTIVE AGE AT KUAJOK STATE HOSPITAL (KSH) IN WARRAP STATE, REPUBLIC OF SOUTH SUDAN

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A DISSERTATION SUBMITTED TO THE FACULTY OF PUBLIC HEALTH, NURSING, AND MIDWIFERY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTERS IN PUBLIC HEALTH AND LEADERSHIP UGANDA CHRISTIAN UNIVERSITY

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Declaration

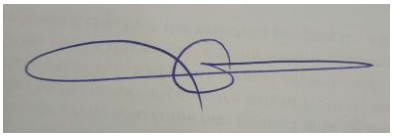
I Ayuel Deng Ayuel Nul, declare that the dissertation titled "The level and factors associated with the uptake of long-acting reversible contraceptive methods among women of reproductive age (15-49) at Kuajok State Hospital of Warrap State in the Republic of South Sudan" is my original work which has been prepared and submitted for the award of Master of Public Health Leadership at the faculty of Public Health, department of Save the Mother (STM) programme at Uganda Christian University, Mukono. This research was conducted under the guidance of my supervisor, and all sources and references used in this dissertation have been acknowledged.

I affirm that the work presented here is plagiarism-free, and the data and the findings are based on legitimate and ethical research practices.

Ayuel Deng Ayuel Nul (MBBS)

RS22M07/003

UCUREC-2024-1068

Signature:  Date: 26th May 2025

Supervisor Approval

This dissertation titled *"The level and factors associated with the uptake of long-acting Reversible Contraceptive Methods among women of reproductive age at Kuajok State Hospital (KSH) of Warrap State, Republic of South Sudan,"* has been prepared by Ayuel Deng Ayuel Nul under my supervision. After reviewing the content, I am satisfied with the quality and depth of the research presented. I hereby approve the submission of this dissertation for the award of a Master of Public Health Leadership degree.

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Signature:  *Date: 26th May 2025*

Dedication

This dissertation is dedicated to my wife, Jacyrine Nyariak Mangok Nyuol, whose love, support, and encouragement have been the foundation of my journey. I also dedicate it to my father, Chief (Sultan) Deng Ayuel Nul Ajing, and my late mother, Anyang Akoon Deng Ajak, whose unwavering belief in my potential has inspired me every day. Additionally, I honor my friend Dr. Angelo Yai Ngor Anyuon (Maternal Uncle) and my childhood mentor during my service as a child soldier, Gen. Garang Mabil Deng, who has been a constant source of motivation and strength.

I also dedicate this work to all women of reproductive age who continue to inspire research efforts aimed at enhancing their health and well-being. May this work contribute to a better understanding and access to family planning options.

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I would like to express my deepest gratitude to all those who have contributed to the completion of this dissertation.

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My heartfelt thanks go to the participants of this study, the women of reproductive age who shared their experiences and insights. Without their willingness to contribute, this research would not have been possible.

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Last but certainly not least, I am forever grateful to my family for their endless love, patience, and encouragement. Their belief in me has kept me motivated through both the challenging and rewarding moments of this journey.

Thank you to everyone who has contributed in various ways to the success of this work.

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Terms of Acronyms

APA	American Psychological Association
ATR	African Traditional Religion
ANC	Antenatal care
ANOVA	Analysis of Variance
CBO	Community-Based Organization
CME	Continuous Medical Education
COC	Combined Oral Contraceptive
ECP	Emergency Contraceptive Pills
FP	Family Planning
HE	Health Education
HF	Health Facility
HP	Health Promotion
HPF	Health Pooled Fund
HFR	High Fertility Rate
HIUD	Hormonal Intrauterine Device
IP	Implementing Partner
IUD	Intrauterine Device
KSH	Kuajok State Hospital
LAFPM	Long-acting Family Planning Method

LARC	Long-acting Reversible Contraceptive
LARCM	Long-acting Reversible Contraceptive Method
MoH	Ministry of Health
PNC	Postnatal Care
POP	Progestogen-only Pills
RSS	Republic of South Sudan
SBC	Social and Behavior Change
SMoH	State Ministry of Health
SPSS	Statistical Package for the Social Sciences
SRHR	Sexual Reproductive Health and Rights
STM	Save The Mother
TFR	Total Fertility Rate
UCU	Uganda Christian University
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization
WS	Warrap State

OPERATIONAL DIFINATIONS

- Long-acting reversible contraceptive refers to contraceptive methods such as intrauterine devices (IUDs) or implants, which are used to delay pregnancy. These methods are very safe, cost-effective, and highly effective, providing long-term pregnancy prevention for 3-10 years and are fully reversible upon removal. LARC plays a critical role in family planning programs by expanding contraceptive options, reducing unmet need, improving maternal and child health outcomes, and promoting gender equity through reproductive autonomy.
- The uptake of LARC refers to the proportion or number of women of reproductive age 15-49 years who choose and start using a long-acting reversible contraceptive method within a specific population, setting, or time frame.

ABSTRACT

The level and factors associated with the uptake of long-acting reversible contraceptive methods among women of reproductive age at Kuajok State Hospital (KSH) in Warrap State, South Sudan

Long-acting reversible contraceptive methods (LARC), such as Intrauterine Devices (IUDs) and Implants, are among the most effective family planning methods used to delay pregnancy by women of reproductive age who desire future fertility.

In Sub-Saharan Africa, there are 48.8 million women of reproductive age (15-49 years). Nearly half of married women want to space their births. However, 22 million fewer than half currently use any contraceptive method, and less than one in seven use a technique.

In South Sudan, the total fertility rate is 4.4 children per woman, and family planning usage remains very low, with only 3% of women using any contraceptive method. As a result, the unmet need for family planning remains high at 29.7%.

To determine the level and factors associated with the uptake of LARC methods among women of reproductive age at Kuajok State Hospital

We conducted an analytical cross-sectional study, and reproductive-age women were randomly enrolled. A structured questionnaire was administered to obtain data on demographic, socio-cultural, and socio-economic factors, as well as facility-based factors. Clinical chart reviews were done to obtain the level of uptake of the long-acting reversible contraceptive method. We determined the level of uptake as a percentage of all reproductive-age women and used Multivariate analysis to identify the factors associated with the use of long-acting reversible contraceptive methods. The level of significance was set at a p-value <0.05.

The findings revealed that the majority of respondents, 230 out of 288 (79.9%), aged between 20 and 39 years, were significantly more likely to use LARC methods compared to other age groups (p=0.001 and 0.004). Socio-demographic factors were not

statistically significant in influencing LARC uptake. However, several socio-cultural and health facility factors, including accessibility and cost of services, were significantly associated with LARC uptake ($p<0.000$). Additionally, income level was a significant socio-economic factor, with 202 out of 288 respondents (70%) reporting income-related influence on their contraceptive choices ($p<0.000$).

In summary, age, income, cost, and accessibility of services were key determinants of LARC uptake. The study recommends strengthening family planning education and community sensitization, expanding mobile outreach services, integrating reproductive health services into routine care, and improving training for health workers using standardized Ministry of Health curricula. The development and dissemination of culturally appropriate information, education, and communication (IEC) materials are also essential for increasing contraceptive uptake among women of reproductive age (15-49 years).

CHAPTER ONE: INTRODUCTION

1.1 Introduction

This chapter presents the introduction, background to the study, problem statement, general objectives, specific objectives, Research questions, research rationale, Significance of the study, Scope of the study, and Conceptual framework.

Long-acting reversible contraceptive (LARC) is the most effective and reliable family planning method for women of reproductive age who desire future fertility. LARC is highly reliable because it requires only periodic involvement from users during application, re-application, or insertion by qualified healthcare providers at health facilities. Family planning employs various methods and strategies to enable men and women to make informed decisions about childbearing. It refers to the methods men and women use to space their pregnancies and limit the number of children they plan to have. It encompasses the services, policies, information, attitudes, practices, and commodities, such as modern contraceptives, that allow women, men, couples, and adolescents to avoid unintended pregnancies or decide when to have a child. Family planning focuses on women's reproductive health, adequate birth spacing, avoiding unwanted pregnancies and abortions, preventing sexually transmitted diseases, and improving the overall quality of life for mothers, children, and families, according to the World Health Organization (World Health Organization, 2017).

South Sudan's birth spacing policy encourages women to use reversible contraception such as oral Pills (ECP, POP and COC), Injectable methods (Depo-Provera IM and Depo-Subcutaneous), Barrier methods (condoms for both male and female), long-acting reversible contraceptive (LARC) methods such as Implants (Implanon and Jedellah) and Intra Uterine Devices (IUDs) (South Sudan Ministry of Health, February 2013).

This study was carried out at Kuajok State Hospital (KSH) in Warrap State, Republic of South Sudan, to explore strategies for improving accessibility to services. The Country faces immense challenges due to its longest war in Africa and other civil wars that broke out immediately after attaining its independence in 2011 from Sudan. South Sudan has a population of about 12.45 million. As of the 2023 Projection Estimation Results (PER) Population, the majority of the population shows that (73.7%) is below 30 years old, and 81.0 % live in rural areas (South Sudan's National Bureau of Statistics, April 2023). The total fertility rate is 4.4 per woman, and family planning uptake in South Sudan remains extremely low, with a contraceptive rate of only 3% for all methods. So, the unmet need for family planning remains high at 29.7% with a maternal mortality rate of 1150 deaths per 100,000 live births (South Sudan Ministry of Health committed family planning policy, July 2017). This study was conducted to assess the level and factors associated with the uptake of long-acting reversible contraceptive (LARC) methods among women of reproductive age (15-49) at Kuajok State Hospital (KSH) in Warrap State, Republic of South Sudan.

1.2. Background of the study

Long-acting reversible contraceptive (LARC) is the most effective and reliable family planning method for women of reproductive age who desire future fertility. It is defined as a process that allows individuals and couples to attain their desired number of children and determine the spacing and timing of their births. It is achieved through the use of contraceptive methods to prevent unintended pregnancies helps to lower maternal ill-health and the number of pregnancy-related deaths, and it is a critical area for improving the lives of women and girls. It allows women to reach their full potential and is key to reducing poverty, pregnancy-related complications, maternal morbidity, and mortality among women and girls (World Health Organization, 2017). Family planning is widely acknowledged as an important intervention towards reducing unnecessary growth of population of various nations. However, LARC is very reliable since it requires

only periodic users' involvement at the time of application/re-application or insertion by qualified healthcare providers at the health facility.

Globally, 1.9 billion women of reproductive age (15-49 years). (United Nations Department of Economic and Social Affairs, 2022). 966 million women of reproductive age are using some method of contraception, whereas 874 million women use modern contraceptive methods, and 92 million use a traditional contraceptive method. Another estimated 164 million women want to delay or avoid pregnancy and are not using any contraceptive method, and these are considered to have an unmet need for family planning. Despite this huge need for modern family planning, there has still been a significant global increment from 67% in 1990 to 77% in 2021 (United Nations Department of Economic and Social Affairs, 2022).

In Sub-Saharan Africa, there are 48.8 million women of reproductive age (15-49 years). Nearly half of married women want to space births or limit the number of their births. However, 22 million fewer than half currently use any contraceptive method, and less than one in seven use a modern method. There are compelling reasons to invest in long-acting reversible contraceptive methods (LARC). LARC can address a full range of women's and couples' needs. Only 2.7 million women currently use these methods, yet evidence suggests that if potential clients have correct information about the methods, long-acting reversible contraceptive (LARC) is the most effective and reliable family planning method for women of reproductive age who desire future fertility. It is defined as a process that allows individuals and couples to attain their desired number of children and determine the spacing and timing of their births. Achieving this involves using contraceptive methods to prevent unintended pregnancies, which helps lower maternal ill-health

and the number of pregnancy-related deaths. This is a critical area for improving the lives of women and girls, allowing them to reach their full potential. This approach is key to reducing poverty, pregnancy-related complications, and maternal morbidity and mortality among women and girls (World Health Organization, 2017). Family planning is widely acknowledged as an important intervention toward reducing unnecessary population growth in various nations. However, LARC is highly reliable since it requires only periodic user involvement during application, re-application, or insertion by qualified healthcare providers at the health facility. If services are made widely available, LARC will be adopted (John M. Pile, Dec 2007).

The developing countries continue to experience high fertility rates (M.Ndayizigiye, March 2017). High fertility rates are associated with several negative consequences such as high maternal and child morbidity and mortality that increase the number of times a woman is exposed to the risks of childbearing and its associated risks such as abortion, iron deficiency anemia, and death from hemorrhage and other complications. From the socio-economic aspect, high fertility also means large families increasing the demand for food, healthcare, and resources to provide education. Studies have reported that challenges such as child malnutrition, child mortality, low education outcomes, and poverty levels are associated with fertility rates and family size (Shattuck, 2011)

Family planning has been seen as an important strategy to address the challenges associated with high fertility rates (Ndayizigiye et al, 2017). Family planning is advanced because of its huge potential to reduce fertility and maternal mortality rates by reducing the risks related to births and abortions. Studies have also concluded that family planning increases the life expectancy of women (Machange, 2022).

In South Sudan, the total fertility rate is 4.4 per woman, and family planning uptake remains extremely low, with a contraceptive rate of only 3% across all methods. Therefore, the unmet need for family planning remains high at 29.7% (South Sudan Ministry of Health committed to family planning policy, July 2017). With 1150 deaths per 100,000 births, South Sudan's maternal mortality rate is one of the highest in the world. The risk of death during childbirth is higher when a woman is in poverty (WHO, 2018). Additionally, neonatal and under-five mortality rates are 39.3 and 99.2 per 1000 live births, respectively (WHO, 2014).

Therefore, the uptake of long-acting reversible contraceptive (LARC) methods in South Sudan is low overall, mirroring the low national contraceptive prevalence rate (mCPR) of just 1.7% among married women. Despite the availability of health facilities, the utilization of all family planning methods in South Sudan remains very low. This contributes to a high fertility rate of 4.4 children per woman and unmet needs for contraception. However, the low uptake of family planning methods globally and locally is largely blamed on numerous controllable factors such as limited knowledge, traditional social norms, and healthcare access which need more effort to improve the situation through initiatives like training dedicated family planning providers and promoting postpartum family planning counseling aim to increase access and education on all contraceptive methods, including Long-acting reversible contraceptive (LARC) methods among women of reproductive age in Warrap State, Republic of South Sudan.

1.3. Problem Statement

Globally, there are 1.9 billion women of reproductive age (United Nations Department of Economic and Social Affairs, 2022). It's reported that 966 million women of reproductive age are using some method of contraception, with 874

million using modern contraceptive methods and 92 million using traditional contraceptive methods.

The long-acting reversible contraceptive (LARC) method has been confirmed as one of the measures to reduce the maternal mortality rate, thereby improving health and facilitating financial growth in resource-limited settings (M. Ndayizigiye, March 2017)

In Sub-Saharan Africa, there are 48.8 million women of reproductive age (15-49 years). Nearly half of married women wish to space their births or limit the number of children they have. However, 22 million fewer than half currently use any contraceptive method, and less than one in seven utilizes a modern method. Only 2.7 million women currently use these methods; yet, evidence suggests that if potential clients receive accurate information on the methods and when services are made widely available, LARC will be adopted (John M. Pile, Dec 2007).

The developing countries experience high fertility rates (M.Ndayizigiye, March 2017) associated with several negative consequences, such as high maternal and child morbidity and mortality that increase the number of times a woman is exposed to the risks of childbearing and its associated risks of abortion, iron deficiency anemia, and death from bleeding and other complications. Studies have reported that challenges such as child malnutrition, child mortality, low education outcomes, and poverty levels are associated with fertility rates and family size (Shattuck, 2011)

In South Sudan, the uptake of family planning method remains extremely low, the prevalence of all contraceptive methods is at 3%. The total fertility rate is 4.4 percent of children per woman, and the maternal mortality rate is estimated at 1223 per 100,000 live births. The unmet need for modern family planning (FP) remains at 29.7%. A study conducted by UNFPA South Sudan Family Planning (2020) and South Sudan Synthesis Report (Sept.2021). Some women experienced a lack of

contraception, leading to maternal death in extreme cases of women of reproductive age.

In Kuajok state hospital, the maternal mortality rate is high with an average of 9 per month (MOH 2024), with the leading cause of death being hemorrhage, and the majority were grand multipara, some of them with a short birth interval of < 2 years despite the presence of different type of modern contraceptive methods

In our setting, the level of uptake of long-acting reversible contraceptive methods has not been documented, and which factors that are more likely to influence the uptake of LARC among women of reproductive age at Kuajok State Hospital have not been documented

1.4.0 Research questions

I. What is the level of uptake of long-acting reversible contraceptive methods among women of reproductive age at Kuajok state hospital?

II. What are the factors associated with the uptake of long-acting reversible contraceptive methods among women of reproductive age at Kuajok state hospital?

1.5.0. Study objectives

1.5.1. General objective

To determine the level and factors associated with the uptake of long-acting reversible contraceptive methods among women of reproductive age at Kuajok State Hospital

1.5.2. Specific Objectives

I. To determine the level of uptake of long-acting reversible contraceptive methods among women of reproductive age (15-49) at Kuajok State Hospital in Warrap State.

II. To determine the factors associated with the uptake of long-acting reversible contraceptive methods among women of reproductive age at Kuajok State Hospital in Warrap State.

1.6.0. Significance of the study.

Information obtained from this study will help in;

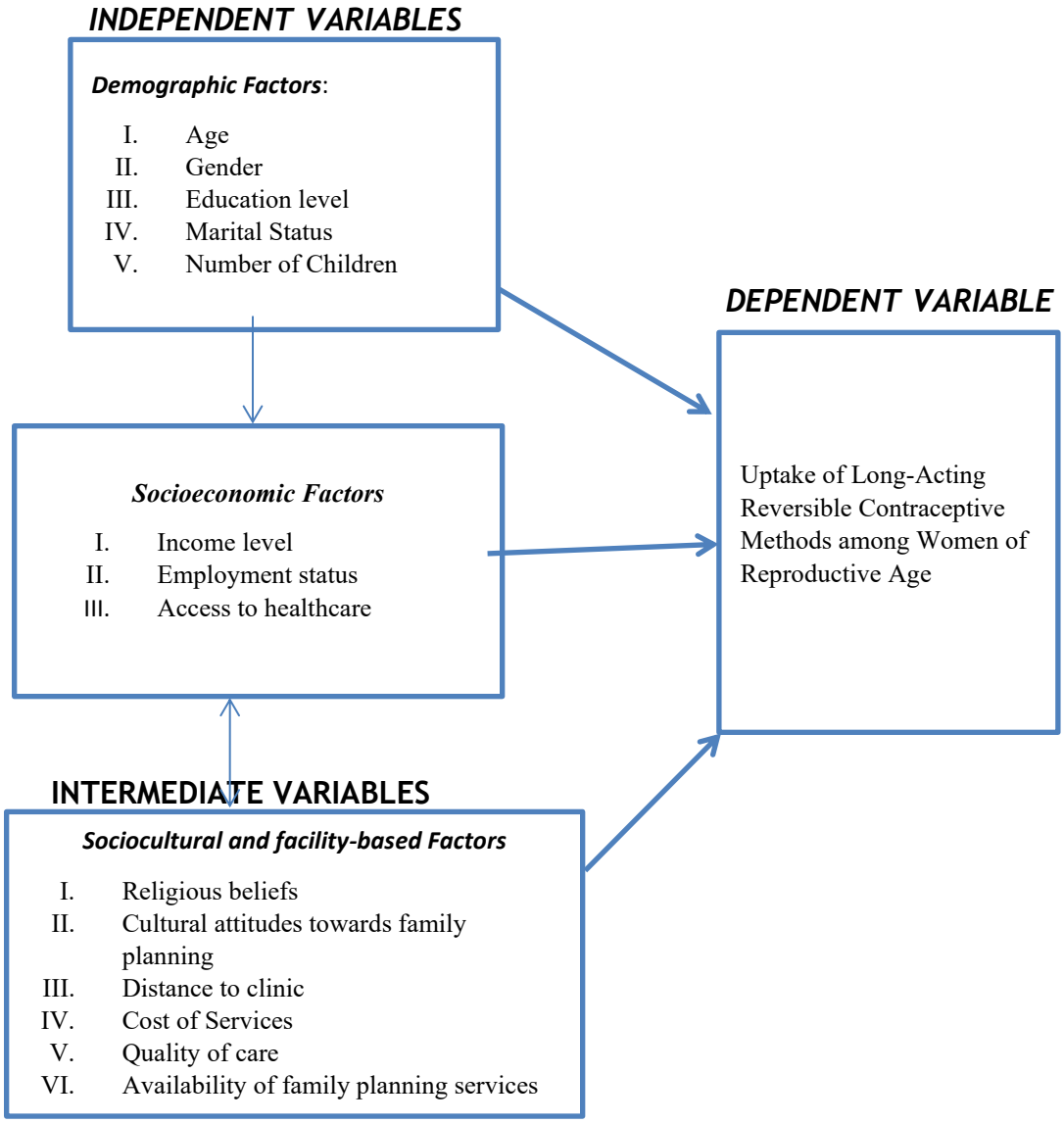
I. Resource planning and allocation, including human resources for health, family planning methods, and male involvement.

II. Provide accurate information about the importance of family planning to traditional norms and socio-cultural factors affecting women of reproductive age.

III. Profiling refers to women who are most likely to lack access to healthcare centers for immediate intervention compared to women of reproductive age (15-49 years).

1.7.0. Conceptual Framework

These illustration figures show the different between Independent variables and dependent variable in the level and factors associated with the uptake of long-acting FP methods.



Chapter Two: Literature Review

2.1. Introduction.

The purpose of this literature review is to examine the studies conducted on the level and factors associated with the uptake of long-acting reversible contraceptive methods among women of reproductive age (15-49) in Warrap State, Republic of South Sudan, in order to explore strategies for improving accessibility to services. This review will investigate two research questions, which include: 1. What is the level of uptake of long-acting reversible contraceptive methods among women of reproductive age? 2. What are the factors associated with the uptake of long-acting reversible contraceptive methods among women of reproductive age?

2.2. The level and factors associated with the uptake of long-acting reversible contraceptive methods among women of reproductive age.

Globally, 1.9 billion women of reproductive age (15-49 years). (United Nations Department of Economic and Social Affairs, 2022). It's reported that 966 million women of reproductive age are using some method of contraception, 874 million women use modern contraceptive methods, and 92 million use a traditional contraceptive method. Another estimated 164 million women want to delay or avoid pregnancy and are not using any contraceptive method, and these are considered to have an unmet need for family planning. Despite this huge need for modern family planning, there has still been a significant global increment from 67% in 1990 to 77% in 2021 (United Nations Department of Economic and Social Affairs, 2022)

In Sub-Saharan Africa, 48.8 million women of reproductive age (15-49 years). Nearly half of the married women want to space their births or limit the number of their births. However, 22 million fewer than half currently use any contraceptive method, and less than one in seven use a modern method. There are compelling reasons to invest in long-acting reversible contraceptive methods. LARC can address

a full range of women's and couples' needs. Only 2.7 million women currently use these methods, yet evidence suggests that if and when potential clients have correct information on the methods and services are made widely available, LARC will be adopted (John M. Pile, Dec 2007)

The developing countries continues to experience high fertility rates (M. Ndayizigiye, March 2017). High fertility rates are associated with several negative consequences such as high maternal and child morbidity and mortality that increase the number of times a woman is exposed to the risks of childbearing and its associated risks such as abortion, iron deficiency anemia, and death from hemorrhage and other complications. From the socio-economic aspect, high fertility also means large families, increasing the demand for food, healthcare, and resources to provide education. Studies have reported that challenges such as child malnutrition, child mortality, low education outcomes, and poverty levels are associated with fertility rates and family size (Shattuck, 2011)

To address the challenges associated with high fertility rates, family planning has been seen as an important strategy (Ndayizigiye et al., 2017). Family planning is advanced because of its huge potential to reduce fertility and maternal mortality rates by reducing the risks related to births and abortions. Studies have also concluded that family planning increases the life expectancy of women (Machange, 2022).

In South Sudan, the total fertility rate is 4.4 per woman, and family planning uptake remains extremely low, with a contraceptive rate of only 3% for all contraceptive methods. So, the unmet need for family planning remains high at 29.7% (South Sudan Ministry of Health made commitments for family planning policy, July 2017). With 1150 deaths among 100,000 births, South Sudan's maternal mortality rate ranks as one of the highest in the world. The probability of death when giving birth is higher when a woman is in poverty (WHO, 2018), With 1,223

deaths per 100,000 live births. In addition, neonatal and under-five mortality rates are 39.3 and 99.2 per 1000 live births, respectively (WHO, 2014).

Therefore, the uptake of long-acting reversible contraceptive (LARC) methods in South Sudan is low overall, mirroring the low national contraceptive prevalence rate (mCPR) of just 1.7% among married women. Despite the availability of health facilities, the utilization of all family planning methods in South Sudan remains low. This contributes to high fertility rate of 4.4 children per women and unmet needs for contraception. However, several factors contribute to low uptake such as limited knowledge, social traditional norms and healthcare access which need more effort to improve the situation through initiatives like training dedicated family planning providers and promoting postpartum family planning counseling aim to increase access and education on all contraceptive methods, including Long-acting reversible contraceptive (LARC) methods among women of reproductive age in Warrap State, Republic of South Sudan.

2.3. The level on uptake of long-acting reversible contraceptive (LARC) methods.

The long-acting reversible contraceptive (LARC) method is the most effective and reliable family planning method for women of reproductive age who desire future fertility. It is fundamental to the practice of women's health care that provides continuous protection from pregnancy for over three years. Without active user adherence, and including the progestin implants, there are two-rod implants, Jadelle and Sino-implants, and one-rod implant, Implanon and Nexplanon, then the Copper intrauterine device (IUD). (Espey, March 2011), (Ogburn, 2011)

The two hormonal forms of LARC have mechanisms of action that are similar to short-acting hormonal modern contraceptives (mC), which thicken cervical mucus, reduce sperm motility, and prevent ovulation. However, LARC methods have grown in popularity in the developed world as they are safe and the most effective methods of reliable contraception among women who want to avoid an unintended

pregnancy. (Jacobstein, 2007). The Long-acting Reversible Contraceptive method (LARC) is praised for having both low failure rates and high continuation rates, making it second only to permanent methods (Male and female Sterilization) according to Espey and Ogburn (Espey and Ogburn, 2011). LARC methods are also far more cost-effective over the long term, as opposed to other more commonly delivered forms of hormonal contraception that are more prone to incorrect or inconsistent use (World Family Planning, 2020, 2015b)

Long-acting Reversible Contraceptive (LARC) methods do require a visit to a trained medical provider for screening, insertion, and removal. LARC provides continuous contraception for up to five years and can be easily inserted by a medical provider after birth, miscarriage, or abortion when women are already present at a health facility (Bluestone C.A., 2006). Insertion and removal procedures can be undertaken in a single medical visit, with most procedures taking just a few minutes, and can occur during any time in the menstrual cycle.

LARC is appropriate for most women, meaning that adolescents and women who are breastfeeding, HIV positive, and nulliparous are typically able to use this form mC (Family planning, 2020, 2015b).

In South Sudan, the total fertility rate is 4.4 per woman, and family planning uptake remains very low, with a contraceptive rate of only 3% across all methods. Therefore, the unmet need for family planning is high at 29.7% (South Sudan Ministry of Health made commitments for family planning policy, July 2017). With 1,150 deaths per 100,000 births, South Sudan's maternal mortality rate is among the highest in the world. The risk of death during childbirth is higher for women living in poverty (WHO, 2018), with 1,223 deaths per 100,000 live births. Additionally, neonatal and under-five mortality rates are 39.3 and 99.2 per 1000 live births, respectively (WHO, 2014).

2.4 Socio-cultural factors associated with long-acting reversible contraceptive (LARC) methods.

Globally, Studies in varied contexts have explored the uptake of long-acting family planning methods (LAFPM) worldwide (Tregear G. W., 2015). In the 21st Century, most developing Countries globally face the challenge of improving their economic growth and development. One of the major aspects that has led to slow growth of the economy and the overall under developments in these Countries is the rapid increase in their population (USAID, 2016). Generally, certain cultural factors would affect the use of long-acting family planning methods by women in society. These factors are pointed by various scholars, and they are: polygamy, religion, and child preference. Long-acting family planning methods (LAFPM) of commonly known as Long-Acting Reversible Contraceptives, are substantially lower among women in polygamous marriages than among those in monogamous ones (Baschieri, 2013). The study suggests that the characteristics of polygamous couples have caused polygamous women to be more resistant to implant use than monogamous women. The other socio-cultural factor is religion. There is link between religious values and use of IUCDs as the former can influence a women's decision on the method of LAFPM to use (Ochako, 2015). It is also observed that religious systems that associate with pronatalism as divine blessing and infertility as curse could motivate reversals in fertility preferences. A shift towards large fertility preferences among Muslims in Kenya was observed and a rise I certain Pentecostal movements, especially among young people and the link with doctrines opposed to modern contraceptive use within Zambia. In Swaziland, some Muslims women do not accept the birth that occurs as fatalism even though religious beliefs emphasized the spiritual importance of progeny, to them it signifies humility child preference (gender) has also been termed as a major socio-cultural factor affecting adoption of LAFPM (Golden, 2015)

In Sub-Saharan Africa, 48.8 million women of reproductive age (15-49 years). Nearly half of the married women want to space births or limit their number of births. However, 22 million fewer than half currently use any contraceptive method, and less than one in seven uses a modern method. There are compelling reasons to invest in long-acting reversible contraceptive methods. LARC can address a full range of women's and couples' needs. Only 2.7 million women currently use these methods, yet evidence suggests that if and when potential clients have correct information on the methods and services are made widely available, LARC will be adopted (John M. Pile, Dec 2007)

Most developing nations are enhancing the uptake of long-acting family planning methods among their citizens since they greatly reduce the maternal mortality rate, which remains a significant public health problem (Kenya National Bureau of Statistics, 2015). It is estimated that, if all women in need of contraceptives in Kenya were using family planning methods, the number of maternal deaths would be reduced by 40%. However, Contraceptive use in the Country is too minimal, and the unmet desire for family planning is among the highest in the world. An unmet need for family planning refers to women capable of reproducing who do not use contraception but wish to postpone their next birth for one or more years or to stop childbearing all altogether (Apanga. Adam, 2015)

In South Sudan, the total fertility rate is 4.4 per woman, and family planning uptake remains extremely low, with a contraceptive rate of only 3% for all the contraceptive methods. So, the unmet need for family planning remains high at 29.7% (South Sudan Ministry of Health made commitments for family planning policy, July 2017). With 1150 deaths among 100,000 births, South Sudan's maternal mortality rate ranks as one of the highest in the world. The probability of death when giving birth is higher when a woman is in poverty (WHO, 2018). In addition, neonatal and under-five mortality rates are 39.3 and 99.2 per 1000 live births, respectively (WHO, 2014).

However, the unmet need for modern long-acting reversible contraceptive methods remains at 29.7%. These high unmet needs challenges had been attributed to pushing system, weak logistic management; poor information system; low delivery conducted by skills birth attendants; (only 19%) at health facilities, 87% of home deliveries, few (40%) functional health facilities conducting emergency obstetric care services; insufficient (2%) budget allocation (United Nations Population Fund, September 2022). Overall, mirroring the low national contraceptive prevalence rate (mCPR) of just 1.7% among married women. Despite the availability of health facilities, the utilization of all family planning methods in South Sudan remains low. This contributes to a high fertility rate of 4.4 children per woman and unmet needs for contraception. However, several factors contribute to low uptake such as limited knowledge, social traditional norms, and healthcare access which need more effort to improve the situation through initiatives like training dedicated family planning providers and promoting postpartum family planning counseling aim to increase access and education on all contraceptive methods, including Long-acting reversible contraceptive (LARC) methods among women of reproductive age in Warrap State, Republic of South Sudan. This study aims to identify the gap in the use of long-acting reversible contraceptive (LARC) methods and increase expanding equitable access to rights-based quality for long-acting reversible contraceptive methods uptake by providing information on modern contraceptives and availability of services, including competency-based training in all family planning methods, provision of the Minimum Initial Service Package (MISP) in humanitarian setting (World Health Organization (WHO), 2010). By using innovations and ensuring that the programs reach the vulnerable population as a whole by scaling up delivery of equality-integrated SRH and FP services, using human rights-based approaches, including support for community-based initiatives including Boma Health Initiatives (BHI) to provide family planning and SRH services, this scaling up demand-side interventions to address gender and socio-cultural norms and practices that prevent

access to SRHR and family planning information and services, and perpetuate inequalities between men and women by prioritizing the engagement concerning the uptake of long-acting family planning methods with faith-based Organizations, traditional authority and cultural leaders in Warrap State, Republic of South Sudan. (South Sudan Synthesis Report, September 2021) South Sudan Social Norms Assessment. This assessment focused on understanding the role of social norms in driving behaviors and practices related to FP/RH use among men and women in South Sudan through questionnaires that include GBV and health-seeking behavior. This was in response to the growing evidence base on the importance of correctly identifying social norms, as well as how to shift norms and measures of normative change in Social Behavior Change (SBC) programming (USAID- Learning Collaborative, 2020). Social norms are implicit and often unspoken rules that predict behavior or practices within a specific group. Unlike attitudes and beliefs, which are individually held and are important for this assessment, social norms are the mutual expectations about behavior that are shared within social groups (Mackie, 2015). Gaining insights into social norms and their key drivers is important for designing SBC programs and activities that are locally appropriate and culturally sensitive to the diverse South Sudanese population, as well as understanding what behaviour can be most effectively targeted. Influencing social norms, in addition to individual attitude and behaviour, supports creating social change at a systemic level and provides the potential to achieve behaviour change at scale (Ibid, 2015)

According to 2020 South Sudan Social Norms Assessment Estimates, 63% of South Sudan's population is under the age of 25 where as 42% is under the age of 15 (Agency, 2020). Two in five girls in South Sudan are married before the age of 18, contributing to a high rate of teenage pregnancy (300/1,000 girls aged 15-19) (Ministry of Health, & National Bureau of Statistics, 2010). South Sudan's maternal mortality rates are the highest in the world, with 1150 death per 100,000 births in 2017 (World Bank, 2019). In 2020, a national household Survey was conducted in

South Sudan (Devkota, 2021) Showed that the contraceptive prevalence rate dropping from 6.5% in 2011 to 5% in 2015, then down to 4.3% in 2020 which continuous dropping to 3% currently. Men reported a higher use of FP method than women. South Sudan core Indicators show the unmet need for FP among married women about 30.6%. Yet, in comparison, self-reported unmet need on the National household Survey was low, with women reporting a higher unmet need than men per ratio women 2.6%; and Men with 1.7% unmet needs. This national household Survey was done in five states of South Sudan but Warrap State was not included. A few small-scale studies have been conducted in South Sudan to assess social and cultural norms that support large families and discourage the use of modern contraception. These have identified increased social status for both men and women who have large families (Palmer & Storeng, 2016); a strongly patriarchal society that limits women's agency and decision-making around contraception (Kane & Tancioco, 2016); Women's sense of a national obligation to replace men lost through war and conflict (Elmushharaf, 2017). Men's strong resentment of women's use of contraception is a threat to culture and peoplehood (Mkandawire, 2019). Normative associations between the use of contraception and sex outside of marriage or sex work (Ibid, 2019). However, many of these and similar factors are cited as negative influences for potential users and providers of FP. The extent to which these norms are specific to the sites where studies were conducted are common across South Sudan since all analyses were conducted in a single areas. This assessment provides comparative data across the different data collection sites in South Sudan.

Evidence from Sub-Saharan Africa shows that modern contraceptive use is lower among polygamous marriages (Baschieri, 2013) as co-wives compete to produce children (Jammeh, 2014). The polygamous marital structure is common in South Sudan and is often associated with having a stronger sense of social security within

the family, clan, and community. Polygamy is accepted for men but not for women (Madut, 2020).

Despite these barriers, opportunities exist for strengthening the promotion and utilization of FP/RH services. These include the supportive bill of rights that protects the rights of women, men, and children under the Transitional Constitution of the Republic of South Sudan (2011) and the South Sudan National Health Policy (2016-2026). (Transitional Constitution of the Republic of South Sudan; South Sudan National Health Policy, 2011; 2016-2026). That lays a strong foundation for programming in the health sector. Similarly, the National Family Planning (National Family Planning, 2013) and the South Sudan Reproductive Health Policy (South Sudan Reproductive Health Policy, 2019-2029) also provide a National framework for access to FP/RH services and state that any individuals of reproductive age 15 years and above are allowed access family planning services. The government of South Sudan and other stakeholders have committed to the FP 2020 goals of reducing maternal mortality by 10% and increasing the modern contraceptive prevalence rate among married women to 10%. Although these policies and planning frameworks provide opportunities for improving sexual and reproductive health and rights (SRHR), their effective implementation is still low due to institutional and resource constraints as well as the prevailing social norms influencing SRHR (Japan International Cooperation Agency, 2017).

2.5 Health systems factors associated with long-acting reversible contraceptive (LARC) methods.

Evidence from Sub-Saharan Africa shows that modern contraceptive use is lower among polygamous marriages (Baschieri, 2013); as co-wives compete to produce children (Jammeh, 2014). The polygamy marital structure is common in South Sudan and is often associated with having a stronger sense of social security within the family, clan, and community. Polygamy is accepted for men but not for women (Madut, 2020).

South Sudan remains extremely low in the use of long-acting family planning methods uptake with the contraceptive prevalence rate of 3 percent for all methods.

The total fertility rate is 4.4% of children per woman and the maternal mortality rate is estimated at 1150 per 100,000 live births. The unmet need for modern family planning (FP) uptake remain at 29.7%. A study conducted by UNFPA South Sudan FP (2020) and South Sudan Synthesis Report (Sept.2021). Some women experienced a lack of contraception leading to maternal death in extremely cases of women of reproductive age. Additionally, the South Sudan Investment case for ending the unmet need for family planning by 2030 proposed to increase the uptake of modern contraceptive prevalence rate from 30% to 50% would avert nearly 1.4 million unintended pregnancies (South Sudan Synthesis Report, September 2021).

Efforts to scale up long-acting family planning methods through awareness campaigns, Health Education (HE) and Health Promotion (HP) at the clinic and communities, Continuous Medical Education (CME) at Health Facilities (HFs), School health clubs, Mothers seeking Antenatal care (ANC) and Family Planning (FP) services, mother-to-mother support groups, and youth clubs have been done but still, uptake of long-acting FP remains low.

However, the unmet need for modern long-acting family planning methods remains at 29.7%. These high unmet needs challenges had been attributed to pushing system, weak logistic management; poor information system; low delivery conducted by skills birth attendants; (only 19%) at health facilities, 87% of home deliveries, few (40%) functional health facilities conducting emergency obstetric care services; insufficient (2%) budget allocation (United Nations Population Fund, September 2022).

Overall, mirroring the low national contraceptive prevalence rate (mCPR) of just 1.7% among married women. Despite the availability of health facilities, the

utilization of all family planning methods in South Sudan remains low. This contributes to a high fertility rate of 4.4 children per woman and unmet needs for contraception. However, several factors contribute to low uptake such as limited knowledge, social traditional norms and healthcare access which need more effort to improve the situation through initiatives like training dedicated family planning providers and promoting postpartum family planning counseling aim to increase access and education on all contraceptive methods, including Long-acting reversible contraceptive (LARC) methods among women of reproductive age in Warrap State, Republic of South Sudan. This study aims to identify the gap in the use of long-acting reversible contraceptive (LARC) methods and increase expanding equitable access to rights-based quality for long-acting reversible contraceptive methods uptake by providing information on modern contraceptives and availability of services, including competency-based training in all family planning methods, provision of the Minimum Initial Service Package (MISP) in humanitarian setting (World Health Organization (WHO), 2010). By using innovations and ensuring that the programs reach the vulnerable population as a whole by scaling up delivery of equality-integrated SRH and FP services, using human rights-based approaches, including support for community-based initiatives including Boma Health Initiatives (BHI) to provide family planning and SRH services, this scaling up demand-side interventions to address gender and socio-cultural norms and practices that prevent access to SRHR and family planning information and services, and perpetuate inequalities between men and women by prioritizing the engagement concerning the uptake of long-acting family planning methods with faith-based Organizations, traditional authority and cultural leaders in Warrap State, Republic of South Sudan to explore strategies for improving accessibility for services delivery. (South Sudan Synthesis Report, September 2021) .

2.6. Policy and Legal Framework: South Sudan's Transitional Constitution (2011) and Reproductive Health Policy (2019-2029) recognize the right to family planning.

The Country is also aligned with FP2020 goals, aiming to increase modern contraceptive use and reduce maternal mortality by 10%. However, policy implementation is weak due to a lack of resources and institutional capacity.

2.7. Gaps Identified: The literature reveals that, extremely low LARC uptake in South Sudan and Warrap State due to a combination of socio-cultural, economic, and health system- related barriers and recommended a strong need for community-based interventions, training of health workers, and public education to counter myths and improve access with the necessity for policy implementation, resource mobilization, and engagement with traditional and faith leaders to shift social norms and promote LARC use.

3.0. Chapter Three: Research Methodology

3.1. Introduction

This chapter highlights the research study design, the Area of the study, the study population, sample size, sampling procedures, data collection techniques, ethical considerations, data analysis, a plan for dissemination, limitations to the study, data collection techniques, and inclusion and exclusion criteria.

3.2. Study design

The study was an analytical cross-sectional design using a structured questionnaire and utilized both quantitative and qualitative methods. Quantitative methods enable the collection of quantitative data to measure the magnitude of the variables under study, while qualitative methods use in-depth data about

participants' beliefs, values, and myths. The quantitative data shall be used to complement data collected qualitatively, which will enrich the study's findings.

The study had involved multiple data sources and perspectives, reducing the chance of systematic bias.

3.3. Area of the study

This study was conducted at Kuajok State Hospital (KSH) in Warrap State, Republic of South Sudan, as a sample point. Kuajok Hospital is located in Kuajok town, the capital of Warrap State, and it is situated a long Wau-Abyei road on the left side northward. It is the only Hospital in Warrap state, saving the entire six counties of the state. It was established in 1954 as a dispensary during the Anglo-Egyptian Colonial Administration of the Sudan. For the last seventy years (70) of existence as a health facility, the Institution had changed its name five times from Dispensary to Primary health care unit (PHCU) then Primary health care centre (PHCC), to Kuajok Rural Hospital (KRH) in 2009. It was declared as Warrap State Hospital in 2012 immediately after the independence of South Sudan in 2011. It occupies an area of 20,000 sq. meters of a rectangular block of 150 x 130 Meters with a perimeter of 600 meters.

Warrap state is bordered by: Unity State in the northeast, Lakes State in the Southeast, Western Equatoria in the Southwest, Western Bahr el Ghazal in the west, and Northern Bahr el Ghazal in the northwest, Southern Kordofan State, and Abyei Special Administration Area in the north

3.4. Study population

The study population of Kuajok State Hospital catchment area is 930,000 and this study was focused on women of reproductive age (15-49) with a population of 693,360 within Warrap State population of 2,773,439 (South Sudan's National Bureau of Statistics, April 2023), the key informants were women of reproductive age (15-49), Midwives, Nurses, Clinical officers, Doctors, Obstetricians, and

Gynaecologists. The study population composed of people of different ethnic groups the majority Dinka, Jur Chol (Luo), Balanda, Jur Bongo, Jur Maan-Anger, and a mixture of other tribes in Warrap State receiving long-acting reversible contraceptive methods in Kuajok State Hospital which received patients referral from the six counties of Warrap State and neighboring states such as Unity, Western Bahr el Ghazal, Northern Bahr el Ghazal and Abyei Administrative Area.

3.5. Sample size calculation

Kish and Leslie's formulae were used to determine the sample size calculation

$$N = \frac{Z^2 pq}{d^2}$$

N = Sample size

Z = z-score for the desired confidence level (1.96 for 95% confidence)

P = uptake of long-acting reversible contraceptive methods

(P=25%) – in Kuajok State Hospital (Warrap)

q = Complement of p (1-p)

d = Margin of error (0.05)

$$N = \frac{1.96^2 * 0.215 * (1 - 0.25)}{0.05^2}$$

$$N = \frac{3.6864 * 0.25 * (0.75)}{0.0025}$$

$$N = \frac{0.7203}{0.0025}$$

$$N = 288$$

. 288 (calculated sample size)

= 288 women of reproductive age.

3.6. Sampling procedures

The study enrolled 288 participants. Using stratified sampling, participants were randomly selected within the five departments, which are family planning (FP), antenatal care (ANC), postnatal care (PNC), Kuajok Health Sciences Institute (KHSI), and the one-stop centre at Kuajok State Hospital in Warrap State. This study required 288 participants to be able to perform the statistical tests required to validate findings. However, an allowance of 20 participants was provided to take care of any difficulty in finding the selected participants.

Primary respondents were selected using simple random sampling by assigning each potential participant a unique number written on separate pieces of paper, putting the pieces of paper in a container, and shaking well, the container to mix the pieces and the required number was selected for inclusion in the sample. This accords each eligible respondent an equal chance of inclusion in the sample. The sampling of Key informants was done through purposive selection.

3.7. Data management

3.7.1. Tools of data collection.

Data was collected by the principal investigator using individual interviews, focus group discussions, and informant interviews with women of reproductive age, Hospital staff, Hospital Medical Director, SMOH staff, and a review of secondary data sources. Focus group discussions of males and females was held.

3.7.2. Method of data collection

An analytical cross-sectional study and randomly selected reproductive age women. A structured questionnaire was administered to obtain data on demographic, socio-

cultural and socio-economic, and facility-based factors. Clinical chart reviews were done to obtain the level of uptake of the long-acting reversible contraceptive method. We determined the level of uptake as a percentage of all reproductive age women, and used Multivariate analysis to determine the factors associated with long-acting reversible contraceptive methods: determine using an appropriate statistical method considering population size, expected prevalence, and desired margin of error.

Structured questionnaires to gather information on demographic characteristics, reproductive history, contraceptive knowledge, and attitudes and behaviours, access to healthcare, and socio-economic factors.

Data analysis: employed descriptive statistics to describe the sample and bivariate analysis to identify potential correlates of LARC uptake. Multivariate analysis was used to determine independent predictors of LARC use. (Young, Channeling Fisher: Randomization tests and the statistical insignificance of seemingly significant experimental results, 2019).

3.7.3. Quality control.

The pre-test of questionnaires was conducted outside the study area and given to involved twenty randomly selected respondents in Western Bahr el Ghazel. The respondents were made aware of the pre-test and kindly requested their comments, criticisms, and suggestions. Corrections were made to the draft for the final questionnaires that were used.

The principal investigator trained two research assistants for one week before the commencement of the study. The questions were written in English, and the research assistants were trained on how to translate it into Arabic and Dinka languages (thongjang). This ensured that the final questionnaires were used to standardize. To minimize bias, a random sampling method was employed for the recruitment of the respondents and the study area. Questionnaires designed

sufficed to collect the required data. Data were immediately checked after collection to see that all the questionnaires were responded to correctly.

3.7.4. Quality assurance

During data collection, the sampling methods were adhered to, and the data collection tool was standardized and pre-tested to ensure that the tools were comprehensive enough to answer the research objectives

Qualified and experienced Research assistants knowledgeable in the local languages were recruited and trained to collect data. Supervised by the principal investigator throughout the study, collected data were edited for completeness, accuracy, and consistency were highly considered.

3.7.5. Data Processing

Data collected was processed through coding, editing, designing of data entry screens, data consolidation, and cleaning.

3.7.6 Ethical considerations

Obtained ethical approval from relevant authorities and ensured participant confidentiality. Data management plan was developed to ensure data quality and security. Data analysis was done by using EPI Info, Spreadsheet (Excel), and appropriate statistical software (e.g., SPSS, STATA) for quantitative data and qualitative data analysis software (e.g., Nvivo) for qualitative data. Integration of findings: combine quantitative and qualitative results to provide a comprehensive understanding of the factors influencing LARC uptake. The findings were presented quantitatively and qualitatively to explain the existing issues. The right of voluntary participation was respected. All research participants were freely received information on the study and the right to answer or not. Informed consent of participants was obtained by providing adequate information on the research before the interview. Written consent was sought. However, due to the low level of literacy, verbal consent was obtained from the respondents. Privacy was ensured

during data collection and all records were stored in soft copies with password-protected, hard copies in the lockable cupboard under the custody of the principal investigator that was not exposed the identity of study respondents. Feedback was given to the participants and partners after the completion of the study Informed consent was obtained from participants, and confidentiality of any information was guaranteed by making questionnaires anonymous, keeping secret the information revealed by the participants, and publishing the research findings in a way that is not related to particular respondents. The approval of the study by the team of Researchers from the Uganda Christian University as well as the State Ministry of Health, Warrap State, and Research Ethical Committee were sought before the commencement of the study. Respondents were educated on the benefits and risks (if any) of participating in the study and the right to participate.

3.7.7. Plan for data utilization and dissemination of findings

Findings were disseminated to stakeholders for program and policy change during the workshop. Findings from the study were shared with implementing partners involved in Family planning-related work in the country. These include the government, UNFPA, South Sudan Reproductive Health Association, South Sudan Parliamentarian, HPF, WHO, UNICEF, Implementing Partners, CBOs, civil society agencies, and institutions. Action for the implementation of recommendations shall be formulated and implemented

3.8. Limitations to the study

I. Non-responses from some targeted respondents

II. Inaccurate responses

3.9. Inclusion and exclusion criteria

Inclusion criteria

I. Respondents were married partners of reproductive age either in formal marriages, cohabiting spouses, or relationships without any formalization of the union.

II. Couples in heterosexual relationships.

III. Clients staying within South Sudan and within the geographical boundaries of the Warrap State are under consideration.

IV. Respondents who consented and willing to participate in the study

Exclusion criteria

I. Clients who were judged clinically not to be having mental disabilities.

II. Married couples below the age of 18 years

III. Persons with hearing impairment

IV. The very sick or terminally ill

CHAPTER FOUR: PRESENTATION AND INTERPRETATION OF FINDINGS

4.0. Introduction

This chapter focuses on assessing the level and factors associated with the uptake of long-acting reversible contraceptive methods among women of reproductive age at Kuajok State Hospital (KSH) in Warrap State, Republic of South Sudan, in order to explore strategies for improving accessibility to services. The chapter begins by reflecting on the basic characteristics of the respondents and then presents analyses and interprets the findings concerning the study objectives of the study. The demographic characteristics, Socio-economic Factors, and socio-cultural factors associated with the uptake of long-acting reversible contraceptive methods among women of reproductive age at Kuajok State Hospital.

Then, the findings on Age group, Education, marital status, Income level, employment status, access to necessary healthcare services, Religious beliefs, cultural attitudes towards family planning, distance to clinic, etc. In addition, the data have been analyzed to determine the independent variables that are tested to identify those associated with the uptake of long-acting reversible contraceptive methods among women of reproductive age at Kuajok State Hospital.

A total of 288 women were approached and gave assent/consent to participate, yielding a response rate of 100 percent.

Ho: There is a significant relationship between socio-cultural factors and the uptake of long-acting reversible contraceptive methods among women of reproductive age

H_1: There is a significant relationship between health system factors and the uptake of long-acting reversible contraceptive methods among women of reproductive age

What is the level of uptake of long-acting reversible contraceptive methods among women of reproductive age (15-49)

4.1 Socio-demographic Characteristics of the Respondent

Table 4.1 presents the socio-demographic characteristics of the respondents, which includes age, marital status, education level, and employment status, and monthly income, level of husband's education, occupation, and religion.

Table 4.1: Socio-demographic Characteristics of the Respondents

Category	Frequency	Percentage	Cumulative Percentage
Age of the respondents			
Under 20	37	12.85	12.85
20-29	134	46.53	59.38
30-39	87	30.21	89.58
40-44	23	7.99	97.57
45-49	7	2.43	100.00
Total	288	100.00	
Marital Status of the Respondents			
Single	62	21.5	21.5
Married	187	64.9	86.5
Divorced	22	7.6	94.1
Windowed	17	5.9	100.0
Total	288	100.0	
Education level of the respondents			
No formal education	70	24.3	24.3
Primary Education	63	21.9	46.2
Secondary education	88	30.6	76.7
Tertiary education	67	23.3	100.0
Total	288	100.0	
Employment Status of the Respondents			
Employed	65	22.6	22.6

Self-employer	85	29.5	52.1
Unemployed	77	26.7	78.8
Student	61	21.2	100.0
Total	288	100.0	
Monthly income of respondent			
Less than $ 100	141	49.0	49.0
$100-$500	61	21.2	70.1
$500-$1000	21	7.3	77.4
More than $1000	39	13.5	91.0
Not applicable	26	9.0	100.0
Total	288	100.0	
Level of husband's education			
Not gone to school	59	20.5	20.5
Primary School	30	10.4	30.9
Secondary School	72	25.0	55.9
College/University	88	30.6	86.5
None	39	13.5	100.0
Total	288	100.0	
Employment			
Government employee	50	17.4	17.4
Daily Laborer	110	38.2	55.6
Business person	60	20.8	76.4
Health worker	53	18.4	94.8
Student	13	4.5	99.3
Housewife	2	0.7	100.0
Total	288	100.0	

Religion of Respondents

Christian		243	84.4	84.4
Muslim		16	5.6	89.9
African Religion	Traditional	29	10.1	100.0
Total		288	100.0	

Under descriptive statistics, the study only had 288 respondents at Kuajok State Hospital (KSH) in Warrap State, Republic of South Sudan. The findings in Table 4.1 present the demographic characteristics of the respondents, which include age, marital status, education level, employment status, and monthly income, level of husband's education, occupation, and religion.

In terms of age, the majority of respondents were aged 20-29 years, with 134/288 (46.5%) falling into this category. This was followed by 87/288 respondents (30.2%) aged 30-39 years, while 37/288 respondents (12.8%) were under 20 years. A smaller number of respondents were aged 40-44 years 23/288 (8.0%)) and 45-49 years 7/288 (2.4%)).

Regarding marital status, most respondents were married 187/288 (64.9%), followed by single individuals 62/288 (21.5%). There were also 22/288 respondents (7.6%) who were divorced and 17/288 respondents (5.9%) who were widowed.

The education level of respondents showed that 88 (30.6%) had completed secondary education, while 70/288 respondents (24.3%) had no formal education. Additionally, 63/288 respondents (21.9%) had primary education, and 67/288 respondents (23.3%) had tertiary education.

In terms of employment status, 85/288 respondents (29.5%) were self-employed, while 65 respondents (22.6%) were employed. A notable 77/288 respondents (26.7%) were unemployed, and 61/288 respondents (21.2%) were students.

When examining monthly income, 141/288 respondents (49.0%) reported earning less than $100, while 61/288 respondents (21.2%) earned between $100 and $500. A smaller number of respondents earned between $500 and $1000. 21/288 (7.3%) and 39/288 respondents (13.5%) earned more than $1000. Additionally, 26 respondents (9.0%) indicated that this question did not apply to them.

Regarding the level of husbands' education, 88 respondents (30.6%) reported that their husbands had attended college or university, while 72 respondents (25.0%) indicated that their husbands had completed secondary school. There were also 30 respondents (10.4%) whose husbands had primary education, and 59/288 respondents (20.5%) whose husbands had not gone to school. Lastly, 39/288 respondents (13.5%) indicated that this question was not applicable.

In terms of occupation, the majority of respondents were daily laborers 110/288 (38.2%)), followed by business persons 60/288 (20.8%)) and government employees 50/288 (17.4%)). Health workers accounted for 53/288 respondents (18.4%), while students 13/288 (4.5%)) and housewives 2/ (0.7%)) made up the smallest groups.

Finally, the religious composition of the respondents showed that the majority identified as Christian (243, (84.4%)), followed by Muslims (16, (5.6%)) and those practicing African Traditional Religion (29, (10.1%)).

4.2 Knowledge and Awareness of Long-Acting Reversible Contraceptive Methods (LARCs)

Table 4.2 presents findings on the knowledge and awareness of LARCs among respondents.

Table 4.2: Knowledge and Awareness of LARCs

Category	Frequency	Percentage	Cumulative Percentage
Heard about long-acting reversible contraceptive methods			
Yes	186	64.6	64.6
No	102	35.4	100.0
Total	288	100.0	
Where did you hear about LARCs			
Healthcare provider	126	43.8	43.8
Friends/Family	33	11.5	55.2
Media (TV, Radio, Internet)	22	7.6	62.8
Community Outreach programs	31	10.8	73.6
None	76	26.4	100.0
Total	288	100.0	
LARC methods you are aware of			
Intrauterine Device (IUD)	31	10.8	10.8
Implant	95	33.0	43.8
Injectable Contraceptive	71	24.7	68.4
Hormonal IUD	16	5.6	74.0
Not aware of LARCs method	75	26.0	100.0
Total	288	100.0	
Rate your knowledge about LARCs			
Excellent	94	32.6	32.6
Good	94	32.6	65.3
Fair	26	9.0	74.3
Poor	74	25.7	100.0

Total	288	100.0	
Know where to access LARC services			
Yes	206	71.5	71.5
No	82	28.5	100.0
Total	288	100.0	

Table 4.2 presents data on the knowledge and awareness of long-acting reversible contraceptive (LARC) methods among respondents.

A total of 186 respondents (64.6%) reported that they have heard about long-acting reversible contraceptive methods, while 102 respondents (35.4%) indicated that they have not heard of them.

When asked where they heard about LARCs, the majority of respondents cited healthcare providers as their source of information (126, (43.8%)). Other sources included friends and family (33, (11.5%)), media such as TV, radio, and the internet (22, (7.6%)), and community outreach programs (31, (10.8%)). Notably, 76 respondents (26.4%) reported that they had not heard about LARCs from any source.

In terms of specific LARC methods that respondents are aware of, 95 respondents (33.0%) identified the implant, while 71 respondents (24.7%) were aware of injectable contraceptives. Additionally, 31 respondents (10.8%) mentioned the intrauterine device (IUD), and 16 respondents (5.6%) were aware of hormonal IUDs. However, 75 respondents (26.0%) indicated that they were not aware of any LARC methods.

When rating their knowledge about LARCs, 94 respondents (32.6%) rated their knowledge as excellent, and another 94 respondents (32.6%) rated it as good. In contrast, 26 respondents (9.0%) rated their knowledge as fair, while 74 respondents (25.7%) rated it as poor.

Finally, regarding access to LARC services, 206 respondents (71.5%) indicated that they know where to access these services, while 82 respondents (28.5%) stated that they do not.

4.3 Attitudes and Perceptions about LARCs

Table 4.3 summarizes respondents' attitudes and perceptions regarding LARCs.

Table 4.3: Attitudes and Perceptions about LARCs

Category	Frequency	Percentage	Cumulative Percentage
Importance of the use contraceptives			
Very important	103	35.8	35.8
Important	87	30.2	66.0
Neutral	64	22.2	88.2
Not important	34	11.8	100.0
Total	288	100.0	
Perception of LARCs compared to other contraceptive methods			
More effective	116	40.3	40.3
Less effective	54	18.8	59.0
Equally effective	34	11.8	70.8
Not sure	84	29.2	100.0
Total	288	100.0	
LARCs have more side effects than other contraceptive methods			
Yes	136	47.2	47.2
No	66	22.9	70.1
Not Sure	86	29.9	100.0
Total	288	100.0	
How comfortable is the respondent with idea of using LARC			
Very comfortable	79	27.4	27.4
Comfortable	76	26.4	53.8
Neutral	96	33.3	87.2
Uncomfortable	28	9.7	96.9
Very uncomfortable	9	3.1	100.0
Total	288	100.0	
Main concerns about using LARCs			
Side effects	115	39.9	39.9

Cost	29	10.1	50.0
Accessibility	43	14.9	64.9
Cultural/Religious beliefs	72	25.0	89.9
Partner's opinion	29	10.1	100.0
Total	288	100.0	
Have respondent ever used a LARC method			
Yes	164	56.9	56.9
No	124	43.1	100.0
Total	288	100.0	

The findings in Table 4.3 summarize respondents' attitudes and perceptions regarding long-acting reversible contraceptive (LARC) methods.

In terms of the importance of using contraceptives, 103 respondents (35.8%) indicated that they consider it very important, while 87 respondents (30.2%) deemed it important. A total of 64 respondents (22.2%) expressed a neutral stance, and 34 respondents (11.8%) felt that contraceptive use is not important.

Regarding perceptions of LARCs compared to other contraceptive methods, 116 respondents (40.3%) perceived LARCs as more effective, while 54 respondents (18.8%) viewed them as less effective. Additionally, 34 respondents (11.8%) believed that LARCs are equally effective, and 84 respondents (29.2%) were unsure.

When asked if LARCs have more side effects than other contraceptive methods, 136 respondents (47.2%) answered yes, indicating a concern about potential side effects. In contrast, 66 respondents (22.9%) believed that LARCs do not have more side effects, while 86 respondents (29.9%) were unsure.

Comfort levels with the idea of using LARCs varied among respondents. A total of 79 respondents (27.4%) reported feeling very comfortable, while 76 respondents (26.4%) felt comfortable. However, 96 respondents (33.3%) were neutral about their comfort level, and 28 respondents (9.7%) felt uncomfortable, with 9 respondents (3.1%) indicating that they were very uncomfortable.

The main concerns about using LARCs included side effects, cited by 115 respondents (39.9%), and followed by cultural/religious beliefs (72, (25.0%). Other concerns included accessibility (43, (14.9%)) and cost (29, (10.1%)). Additionally, 29 respondents (10.1%) expressed concern about their partner's opinion.

4.4 Uptake and Usage of LARCs

Table 4.4 presents data on the uptake and usage of LARCs among respondents.

Table 4.4: Uptake and Usage of LARCs

Category	Frequency	Percentage	Cumulative Percentage
Have the respondent ever used a LARC method?			
Yes	164	56.9	56.9
No	124	43.1	100.0
Total	288	100.0	
Method used by the respondent			
Intrauterine Device (IUD)	26	9.0	9.0
Implant	88	30.6	39.6
Injectable Contraceptive	51	17.7	57.3
Hormonal IUD	15	5.2	62.5
None	108	37.5	100.0
Total	288	100.0	
How long have the respondents been using the LARC			
Less than 6 months	67	23.3	23.3
6 months to 1 year	36	12.5	35.8
1-2 years	31	10.8	46.5
More than 2 years	66	22.9	69.4
None user	88	30.6	100.0
Total	288	100.0	
The main reason for choosing a LARC method			
Long-term protection	113	39.2	39.2

Convenience	38	13.2	52.4
Recommendation be healthcare provider	40	13.9	66.3
None convenience	92	31.9	98.3
To prevent Pregnancy	5	1.7	100.0
Total	288	100.0	
Reason for never using L			
Lack of information	112	38.9	38.9
Fear of side effects	104	36.1	75.0
Cost	15	5.2	80.2
Partner's disapproval	24	8.3	88.5
None	32	11.1	99.7
To prevent Pregnancy	1	0.3	100.0
Total	288	100.0	

Source: Primary Data

Table 4.4 indicates that 164 (56.9%) of respondents have used a long-acting reversible contraceptive (LARC) method, with the implant being the most commonly used method (88, (30.6%)). A total of 26 respondents (9.0%) reported using an intrauterine device (IUD), while 51 (17.7%) used injectable contraceptives, and 15 (5.2%) opted for hormonal IUDs. Notably, 108 respondents (37.5%) indicated that they had not used any LARC method.

Regarding the duration of LARC usage, 67 respondents (23.3%) reported using LARCs for less than 6 months, while 36 (12.5%) had used them for 6 months to 1 year. Additionally, 31 respondents (10.8%) reported using LARCs for 1-2 years, and 66 (22.9%) had been using them for more than 2 years, suggesting a level of satisfaction with these methods. The primary reason for choosing LARC methods was long-term protection, cited by 113 respondents (39.2%). Other reasons included convenience (38, (13.2%)) and recommendations from healthcare providers (40, (13.9%)). Conversely, the main reasons for not using LARC methods included a lack of information (112, (38.9%)) and fear of side effects (104, (36.1%)). This highlights the need for improved education and outreach to address these concerns and enhance the uptake of LARC methods among women of reproductive age in the region.4.5 Accessibility and Support for LARC Services

Table 4.5 outlines the accessibility and support for LARC services.

Table 4.5: Accessibility and Support for LARC Services

Category	Frequency	Percentage	Cumulative Percentage
Accessibility of LARC services in your area			
Very accessible	78	27.1	27.1
Accessible	78	27.1	54.2
Neutral	113	39.2	93.4
Inaccessible	19	6.6	100.0
Total	288	100.0	
How satisfied are you with the LARC services provided by healthcare facilities			
Very satisfied	85	29.5	29.5
Satisfied	87	30.2	59.7
Neutral	96	33.3	93.1
Dissatisfied	15	5.2	98.3
Very dissatisfied	5	1.7	100.0
Total	288	100.0	
Received counselling about LARCs from a healthcare provider			
Yes	177	61.5	61.5
No	111	38.5	100.0
Total	288	100.0	
How helpful was the counselling you received?			
Very helpful	90	31.3	31.3
Helpful	73	25.3	56.6
Neutral	46	16.0	72.6
Not helpful	22	7.6	80.2
Not applicable	57	19.8	100.0
Total	288	100.0	
Do you feel supported by your partner in contraceptive choices?			
Yes	123	42.7	42.7
No	165	57.3	100.0

Total	288	100.0

Table 4.5 outlines the accessibility and support for long-acting reversible contraceptive (LARC) services among respondents.

Regarding the accessibility of LARC services in their area, 78 respondents (27.1%) reported that the services were very accessible, while another 78 respondents (27.1%) found them accessible.

A significant portion, 113 respondents (39.2%), felt that the services were neutral in terms of accessibility, and 19 respondents (6.6%) indicated that the services were inaccessible.

In terms of satisfaction with the LARC services provided by healthcare facilities, 85 respondents (29.5%) reported being very satisfied, and 87 respondents (30.2%) were satisfied. However, 96 respondents (33.3%) expressed a neutral stance on their satisfaction, while 15 respondents (5.2%) were dissatisfied, and 5 respondents (1.7%) were very dissatisfied.

When asked if they had received counseling about LARCs from a healthcare provider, a majority of 177 respondents (61.5%) answered yes, while 111 respondents (38.5%) indicated that they had not received such counseling.

Regarding the helpfulness of the counseling received, 90 respondents (31.3%) found it very helpful, and 73 respondents (25.3%) considered it helpful. However, 46 respondents (16.0%) felt neutral about the helpfulness, while 22 respondents (7.6%) found it not helpful, and 57 respondents (19.8%) indicated that it did not apply to them.

Finally, when asked if they felt supported by their partner in their contraceptive choices, 123 respondents (42.7%) responded affirmatively, while 165 respondents (57.3%) felt unsupported

4.3 Bivariate logistic regression was used between Socio-demographic variables of the respondents and the uptake of long-acting reversible contraceptive methods among women of reproductive age (15-49)

Table: 4.3. Socio-demographic variables of the respondents with the uptake of long-acting reversible contraceptive methods among women of reproductive age (15-49)

Variables	**Frequency N (%)**	**OR (CI)**	**P value**
Age group			
<20	37(12.8)	Ref	
20-29	143(46.5)	9.30 (3.59- 24.1)	<0.001
30-39	87(30.2)	8.75 (0.29-1. 98)	<0.004
40-44	23(8.0)	1.20 (1.44-1.86)	0.080
45-49	7(2.4)	1.64 (1.01- 2.66)	0.762
Education			
Informal	70(24.3)	Ref	
Primary	63(21.9)	9.64 (3.14- 10.33)	0.122

Secondary	88(30.6)	12.41(7.01-21.34)	<0.002
Tertiary	67(23.3)	14.64 (8.14- 26.33)	<0.001
Marital status			
Married	187(64.9)	Ref	
Single	62(21.5)	1.10 (0.06-0.18)	<0.001
Divorced	22(7.6)	7.22(0.50-0.54	0.24
Windowed	17(5.9)	0.61(5.02-11.81)	0.787
Occupation of respondents			
Government employee	50(17.4)	Ref	
Daily laborer	110(38.2)	11.23(7.16-18.01)	<0.000
Business person	60(20.8)	13.71(6.19-14.01)	<0.003
Healthy worker	53(18.4)	11.10(3.08-11.41)	0.971
Student	13(4.5)	10.17(3.10-15.09)	<0.001
House wife	2(0.7)	14.61(7.09-16.05)	0.091
Religion			

Christian	243(84.4)	Ref	
Muslim	171(5.6)	10.01(0.12-0.19)	0.172
African Traditional Religion	29(10.1)	0.9.66(2.01-3.11)	<0.000

From the table 4.3 shows level of the uptake for long-acting reversible contraceptive methods among women of reproductive age (15-49). The Majority of the age group between 20-39(230 respondents) were 9 times more likely to experience the uptake of long-acting reversible contraceptive methods among women of reproductive age at Kuajok State Hospital compared to other age groups with statistical evidence (P=0.001 and 0.004,), and other variables include, the Education level 88(31) for primary and 67(23) tertiary with odds ratio being 12 times and above more likely to uptake for long-acting reversible contraceptive methods with (P=0.002 and 0.001) respectively, then the single under martial status were 62(22) with (P<0.001) and when it comes Occupation of respondents the daily laborer, business persons and students were more than 10 times more like to uptake of long-acting reversible contraceptive methods among women of reproductive age with 110(38),60(21) and 13(4.5),P<0.05 for the daily laborer, business persons and students respectively and finally African traditional religion was important variable in the study women who believe in African traditional religion were one times more likely to the uptake of long-acting reversible contraceptive methods among women of reproductive age at Kuajok State Hospital compared to the known religions with P=0.000,29(10) as indicated table 4.3 above.

4.3.1 Bivariate analysis between socio-economic factors and the uptake of long-acting reversible contraceptive methods among women of reproductive age

As highlighted in Table 4.2.2, the level of Income was found to be statistically significant 202(70%),P<0.000 and 0.002] where most respondents earning between(1-500) US $ meaning that these adolescence pregnant girls who earn the mention money were 5times more likely to uptake the long-acting reversible contraceptive methods compared to other levels earning reason being since they earn less and the need to plan for the period before one can conceive.

The other variable that was statistically significant is employment and research indicated that those Unemployed and students were 3 times more likely to uptake the long-acting reversible contraceptive methods with (56% P<0.021 & 0.003) as indicated in table below. Finally when it came to access to health 78(27.1%) with P=0.000] indicating accessibility to reversible contraceptive methods is about 3 times more likely to these adolescence girls to uptake before getting pregnant as in table 4.3.1 below.

Table 4.3.1. Shows the Bivariate analysis between socio-economic factors and the uptake of long-acting reversible contraceptive methods among women of reproductive age

Variable	Frequency	OR(CL)	P-Valve
Income level			
No applicable	26(9)	Ref	
Less than$100	141(49)	5.418(4.21-6.410)	0.000
$100-$500	61(21.2)	5.100(4.121-5.172)	0.002
$501-$1000	21(7.3)	3.710(0.884-10.844)	0.956

>$1000	39(13.5)	8.310 (4.481-14.610)	0.452
Employment			
Employed	65(22.6)	Ref	
Self-employed		1.801 (0.880-2.992)	0.862
85(29.5)		3.00 (0.942-2.100)	0.021
Unemployed	77(26.7)	3.501(1.701-7.221)	0.003
Student	61(21.2)		
Access to Health			
Very accessible	78(27.1)	**Ref**	
Accessible	78	2.701 (1.333-5.444)	0.000
(27.1)		6.617 (2.001-46.121)	0.561
Neutral	113(39.2)		0.071
Inaccessible		1.150 (0.613-2.103	
19(6.6)			

4.3.2 Bivariate analysis between Sociocultural and facility-based factors and the uptake of long-acting reversible contraceptive methods among women of reproductive age

Table 4.3.2. Shows the Bivariate analysis between Sociocultural and facility-based factors and the uptake of long-acting reversible contraceptive methods among women of reproductive age

Variable	**Frequency**	**OR(CL)**	**P-Valve**

Sociocultural and facility-based Factors			
Side effects	115(39.9)	Ref	
Cost	29(10.1)	4.400(5.20-6.317)	0.000
Accessibility	43(14.9)	6.701(6.101-5.172)	0.022
Cultural/Religious	72(7.3)	3.111(0.281-3.814)	0.144
Partner's opinion	29(10.1)	3.910 (5.81-9.840)	0.772

Findings revealed that under socio-cultural and other based factors, accessibility and the costs of the **contraceptive** methods, are statistically significantly with (P<0.000, 29(10%) meaning that for the costs incurred in getting them is 4 times more likely hard for these women to acquire this drugs while accessing them is 6 times more likely difficult in having them (**contraceptive**) with (P<0.022) as indicated in the table 4.3.2 above.

4.3.3. Bivariate analysis on Knowledge and Awareness of Long-Acting Reversible Contraceptive Methods (LARCs)

From the table 4.3.3 the respondents about one and third 63(35.4%) of the women with P=0.000,did not hear about the long –acting reversible contraceptive methods and was also indicated respondents got the about LARCs through friends/family with odds ratio of 1 with P=0.000 followed by those respondents got the information from media(TV, Radio, Internet) with P=0.003 with odds ratio being 6 meaning that women are 6 times more likely to get information about LARCs through community Outreach programs.

It was revealed implant and Injectable Contraceptive where found to be significant with (P<0.000 & 0.002) indicating women using these methods are 5 times more likely to

uptake the long-acting reversible contraceptive methods than to compare other services. Finally it was discovered that respondents were told to rank them depend on how knowledgeable about LARCs and research show that these women are 6times more likely not to be away contraceptives with (p<0.000 74(26%)) and 82(28.5%), and P<0.021, 74(25.7%) didn't where to access LARC services as indicated in the table below.

Table 4.3.3 show the bivariate analysis on the knowledge and awareness of LARCs among respondents.

Category	OR(CL)	Frequency	P-Valve
Heard about long-acting reversible contraceptive methods			
Yes	Ref	186(64.6)	
No	4.492(5.20-6.013)		0.004
Where did you hear about LARCs			
Healthcare provider	Ref	126(43.8)	
Friends/Family	1.369 (1.167-4.809)	33(11.5)	0.000
Media (TV, Radio, Internet)	0.914 (0.511-1.801	22(7.6)	0.074
Community Outreach programs	6.414 (1.776-39.42)	31(10.8)	0.003
None	4.310 (4.116-21.02)	76(26.4)	0.430
LARC methods you are aware of			
Intrauterine Device (IUD)	Ref	31(10.8)	
Implant	5.322 (1.309-34.161)	95(33.0)	0.004

Injectable Contraceptive	7.315 (3.22-39.139)	71(24.7)		0.002
Hormonal IUD	4.495 (3.339-48.161	16(5.6)	0.071	
Not aware of LARCs method	2.315 (1.252-23.001)	75(26.0)	0.000	
Rate your knowledge about LARCs				
Excellent	Ref			
		94(32.6)		
Good	1.150 (0.613-2.103)	94(32.6)	0.055	
Fair	2.617 (2.001-46.121)	26(9.0)	0.177	
Poor	6.701 (1.333-5.444)		0.001	
		74(25.7)		
Know where to access LARC services				
Yes	Ref			
		206(71.5)		
No	6.701 (1.333-5.444)			0.021
		82(28.5)		

Table 4.4 Multiple Logistic regression analysis of predictors of LARCs

Variable	Beta	P- valve	Adjusted odds Ratio (95% CI)
Demographic			
Age			
>20	0.31	0.642	3.441 (0.714-10.000)
20-29	0.29	0.000	2.701 (1.333-5.444)
30-39	0.41	0.064	6.617 (2.001-46.121)
40-44	0.93	0.671	1.150 (0.613-2.103
45-49			1
Education			
Informal	0.26	0.078	10.412 (4.441-41.610)
Primary	0.56	0.088	1.801 (0.880-2.992)
Secondary	0.47	0.000	3.00 (0.942-2.100)
Tertiary			1
Marital Status			
Married	0.35	0.472	8.117 (4.421-14.551)
Single	0.91	0.001	3.710(0.884-10.844)
Divorced	0.47	0.006	8.310 (4.481-14.610)
Windowed			1

Employment			
Gov't employee	0.96	0.161	8.812 (1.881-35.619)
Daily laborer	0.88	0.004	1.881(2.012-4110)
Business person	0.32	0.007	3.114(1.011-3.661)
Healthy worker	0.61	0.832	0.897 (0.519.1.577)
Student	0.74	0.000	3.441 (1.613-5.111)
House wife			1
Social-Economic.			
Income			
Less than $100		0.013	2.461 (1.151-4.901)
$100-$500		0.002	6.410(2.107-15.6634)
$500-$1000		0.901	0.904(0.514-1.612)
$1000			1
Access to health			
Very accessible		0.004	6.414 (1.776-39.42)
Accessible		0.029	1.369 (1.167-4.809)
Neutral		0.804	0.914 (0.511-1.801)
Inaccessible			1
Social -cultural			

Side effects	0.97	0.003	0.701 (1.333-5.444)
Cost	0.31	0.001	6.617 (2.001-46.121)
Accessibility	0.22	0.070	1.150 (0.613-2.103)
Cultural/Religious	0.18	0.083	2.701 (1.333-5.444)
Partner's opinion			1

Finding in the table 4.4 there are factors that are associated with LARCs was presented above the results rewarded the baseline model in multiple logistic regression includes the following variables: LARCs is the dependent variable Age, Gender, Education level Marital Status, Income level, Employment status, Access to healthcare, Religious beliefs Cultural attitudes towards family planning, Cost of Services Quality of care etc. Are the independence variables.

The final multiple logistic regain model showed that the odds of the age (20-29) to the LARCs were about 3 times more likely among women who use contraceptive methods as compared to other age groups with (P=0.000<0.05, OR= 2.701 CI: 1.333-5.444), meaning in this age women are still enjoying the fruits and are not ready to get pregnant so the use of LARCs.

Education level of women was found to be statistically significant to LARCs with odds women attained secondary level were 3 times more likely to be prepared for LARCs as compared to the levels of educations per survey (P=0.003<0.05, OR=3.00,CI: 0.942-2.100)

Also the odds LARCs were 8 times greater or more likely among women who divorced and 4times more likely to single to uptake the long-acting reversible contraceptive methods as compared to other levels of marital status and was

statistically significant with (P=0.006 &0.001, OR=3.710, 8.310) and compared women with different levels of marital status.

Furthermore, Education level was disclosed that women earning daily, business person and students, the odds ratio was above 2 times more likely to LARCs as compared to other different types of employment as indicated in statistics (P=0.004,0.007& 0.000 OR=1.88,3,114 and3.441) respectively

In addition, the odds of LARCs were statistically significant 6 times more likely among women earning Dollars between (100-500) as related to women whose income is <100$, and the odds ratio is 2 times more likely to Long-Acting Reversible Contraceptive with (P=0.002 &0.013, OR=6.41&2.46 95% CI), the researcher found that their chances to women earning more dollars in engaging contraceptive methods as compared to other levels of income earners.

The information is the table above shows that there is statistical significance in accessing health and it is indicated that the odds of LARCs between (very accessible and accessing) is 3.5 times more likely to engage in the use of contraceptive method as the average was take for two measures by the researcher showing (P=0.0004, 0.029 <0.05, OR=6.414 & 1.369; 95% CI) meaning that most women can access contraceptive methods as indicate in the table above.

Finally, this bring us to socio-cultural, study revealed that the cost of drugs and transport was mentioned as the challenge and were 6 times more likely not to use the LARCs with (P=0.001, OR=6.617, 95%CI: (2.001-46.121) and other calamity was side effect and this shows the dangers of using the contraceptive methods and is elaborated statistically with (P=0.003<0.05, OR = 0.701, 95% CI = 1.333-5.444)

4.4.1 COEFFICIENTS

In order to establish whether there is a relationship between LARCs and social demographic and social cultural factors, Pearson Correlation and regression analysis were performed.

Table 4.3: Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of The Estimate
1	.522 [a]	.273	.224	1.07988

a. **Predictors: (Constant), Socio-economic, Social demographic factors**

According to the findings, socio-economic in terms of (access to health, socio-cultural and access capital) and social demographic factors contributes to the uptake of the long-acting reversible contraceptive methods. On the R, Square of 0.273, also basing on the adjusted R Square of 0.224, it is indicated that socio-economic and social demographic factors contributes 22.4% to the uptake the long-acting reversible contraceptive methods among women (15-49) and the remaining 76.4% is contributed by other factors outside the scope of this study

4.4.2 Relationship between LARCs, Socio-economic and Social demographic factors.

Table 4.4.2: Correlation between perceived pregnancy-related stress, resilience and social demographic factors

Correlations

		Socio-economic	Social demographic factor	LARCs
Socio-economic factors	Pearson Correlation	1	977**	.519**
	Sig. (2-tailed)		.000	.002
	N	288	288	288
Social demographic factors	Pearson Correlation	.977**	1	.520**
	Sig. (2-tailed)	.000		.002
	N	288	288	288
LARCs	Pearson Correlation	.519**	.520**	1
	Sig. (2-tailed)	.002	.002	
	N	288	288	288

**Correlation is significant at the 0.01 level (2-tailed).

According to the results of the correlation analysis in table 4.4.2 revealed that socio-economic and social demographic factors were significant with P<0.005, (0.02) and uptake the long-acting reversible contraceptive methods the 0.519 (52%). This implies that socio-economic and social demographic factors have a positive moderating influence on the uptake of the long-acting reversible contraceptive methods (LARCs).

Thus, there is a positive relationship between LARCs, socio-economic and social-demographic factors in the study

CHAPTER FIVE: DISCUSSION OF THE FINDINGS

5.0: Introduction.

This chapter presents findings from the study on the uptake of long-acting reversible contraceptives (LARCs) among women of reproductive age (15-49) at Kuajok State Hospital in Warrap State, South Sudan. The discussion is divided into three thematic sections:

1. Level of uptake
2. Socio-cultural and facility-based factors, and
3. Socio-economic factors influencing LARC use

5.1. Level of Uptake of LARCs.

- Age is a significant factor:
  Women aged 20-39 years, especially those 20-29, were up to 9 times more likely to use long-acting reversible contraceptives (LARCs) compared to other age groups (p=0.001, OR=2.7). This is because they prefer to delay pregnancy.

- Education plays a crucial role:
  Women with primary (31%) and Tertiary (23.1%) education levels showed higher uptake, with secondary-level education tripling the odds of LARC use (p=0.003, OR=3.00). This aligns with previous studies from Kenya.
- Occupation and Income influence uptake:
  Daily laborers (38%), businesswomen (21%), and students (4.5%) showed significantly higher uptake. Women earning $100-500/month were 6 times more likely to use LARCs compared to those earning less (p=0.002, OR= 6.41).
- Marital Status also matters:
  Uptake was 4 times higher among singles and 8 times higher among divorced women compared to married women (p<0.001, OR=3.71).

- Religion had an unexpected impact:
  Women adhering to African traditional religions showed a greater acceptance of LARCs, reportedly due to fewer institutional restrictions.
- Healthcare accessibility:

Ease of access to the service increased the likelihood of uptake by over 3.5 times (p = 0.004), indicating that physical proximity and service availability are crucial factors.

5.2. **Socio-Cultural and Facility-Based Factors**.

- Access and cost:
  Access to contraceptives remains difficult for some women, and those who reported higher costs and accessibility issues were 4 to 6 times less likely to use LARCs (p<0.022).
- Awareness and Information Sources:

Around 35% of respondents had never heard of LARCs. Most information came from friends/family, followed by media (TV, radio, internet). Outreach programs increased awareness six times ($p = 0.003$).

- Unmet need:
  Despite efforts, the unmet need remains at 29.7%, due to weak supply chains, poor health facility performance, and low-skilled birth attendance rates at 19%.
- Method preference:
  Implants and Injectables were the most preferred methods, with women 5 times more likely to use them than other LARCs ($p<0.002$).
- Knowledge gaps:
  26% of respondents lacked sufficient knowledge about LARCs, and nearly 29% did not know where to access them ($p<0.021$).
- Cultural barriers:
  Cultural taboos, myths about side effects, and transportation costs discouraged LARC use. The cost and side effects were statistically significant deterrents ($p=0.001$, OR=6.617).
- Recommendations:
  The study advocates for faith-based engagement, community sensitization, and collaboration with traditional authorities to overcome socio- cultural resistance.

5.3. Socio-Economic factors of LARCS

- Income and Employment:
  A clear correlation exists between income level and LARC uptake. Women earning $ 100-500 were 5 times more likely to use LARCs ($p<0.000$). Similarly, unemployed women and students were 3 times more likely to use LARCs, possibly due to the desire to avoid unplanned pregnancies while still financially dependent ($p<0.021$).
- Health Facility access:

Accessibility to health facilities greatly influenced uptake. Women with easier access were 3 times more likely to use LARCs (p=0.000)

- Impact on maternal health:
  Lack of contraceptive use has led to maternal death. Increasing contraceptive use could reduce unintended pregnancies by 1.4 million by 2030 if modern contraceptive prevalence increases to 50% (UNFPA, 2021).

In conclusion, the findings show a strong association between LARC uptake and factors such as age, education, income, marital status, occupation, access to healthcare, and cultural norms. To enhanced outreach, education, accessibility, and cultural integration are essential for increasing the uptake of LARCs in Warrap State. Effective partnerships with community, religious, and governmental stakeholders are critical to overcoming barriers and improving reproductive health outcomes.

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.1 Introduction.

This chapter presents the main conclusions and practical recommendations based on the study examining the factors influencing the uptake of long-acting reversible contraceptives (LARCs) methods among women of reproductive age (15-49) at Kuajok State hospital, South Sudan.

6.2 Conclusion

Maternal Mortality and Family Planning Context.

- Maternal mortality rate remains critically high at Kuajok State Hospital (KSH), averaging 9 deaths per month (MOH, 2024), with hemorrhage as the leading cause.
- Many maternal deaths occurred among grand multiparas with short birth intervals (<2 years), despite the availability of modern contraceptives, highlighting the need for increased LARC use.

Demographic and Statistical Insights.

- The 20-39 age group represents 79.9% of LARC users and is 9 times more likely to use LARCs than other age groups (p=0.001; 0.004).
- Socio-cultural factors such as accessibility, myths, and cost were significant barriers to LARC uptake (p< 0.000).
- Health facility-level determinants like availability of services, staff attitudes, and privacy also significantly influenced LARC use.
- Women earning $ 100-500 monthly were 5 times more likely to use LARCs compared to lower-income groups (p< 0.000).
- Variables such as marital status, education, and religion were not statistically significant predictors of LARC use.

6.3. Recommendations

To the Community:

- Enhance awareness on LARC safety and benefits via peer education, community dialogues, and mother-to-mother support groups.
- Dispel myths and misconceptions through culturally tailored Information, Education and Communication (IEC) campaigns.

- Engage men in family planning education to reduce gender-driven resistance to contraceptive uptake.

To Kuajok State Hospital (KSH):

- Ensure consistent LARC supplies and proper equipment across all service points.
- Train and deploy skilled family planning providers to meet demand and offer respectful, confidential services.
- Improve privacy measures to foster client comfort and trust during consultations.
- Integrate family planning counselling into routine antenatal care (ANC), Postnatal care (PNC), and immunization services.

To the State Ministry of Health (SMoH):

- Expand mobile outreach programs to serve remote and underserved communities.
- Institutionalize reproductive health education via school clubs and community health workers, targeting youth and young adults (especially ages 20-39).
- Establish specialized reproductive health centers at all facilities with trained staff and affordable services.
- Foster partnerships with NGOs, Peer educators, and religious leaders to mobilize resources and enhance service delivery.
- Develop standardized IEC materials to support informed family planning choices among women of reproductive age.
- Invest in ongoing training for health workers using a national curriculum to ensure consistency and competency.
- Use evidence from this and similar studies to guide policy formulation and resource allocation toward expanding LARC uptake,

Research Limitations

- Variables such as knowledge about contraceptives use and social economic status of the respondents were not measured using standard tools and this could have introduced information bias.
- The study was specific Kuajok State General Hospital only. Therefore, the findings may not be directly generalizable to other setting such as the rural communities.
- A non-random sampling technique was used to enroll participants and this could have introduced selection bias in the study.

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Annexes

Appendices

Appendix I

Consent form (with details).

The Level and Factors Associated with the Uptake of Long-Acting Reversible Contraceptive Methods among Women of Reproductive Age (15-49) in Warrap State, Republic of South Sudan

Introduction:

A Master's Student from Uganda Christian University (UCU) is carrying out a study on the above-mentioned topic at the Kuajok State Hospital (KSH) in Warrap State, Republic of South Sudan. You have been identified to take part in this study.

Purpose of the Study: The study aims to assess and understand the level and factors associated with the uptake of long-acting reversible contraceptive (LARC) methods among women of reproductive age in Warrap State, Republic of South Sudan. This research is part of the requirements for the award of a Master's degree in Public Health Leadership (MPHL).

I kindly ask for your participation in providing information regarding this subject matter.

Voluntary Participation: Your participation in this study is voluntary, and you can withdraw at any time without any consequences.

.**Study procedure:** If you decide to participate, I will ask you questions about your experiences with the uptake of long-acting reversible contraceptive methods, and the interview will last approximately 15 minutes.

Potential risks: There is no potentially risky procedure associated with this study. Questions included in this interview do not present any foreseeable risk. However, you may choose not to answer any question that makes you uncomfortable

Benefits: The results of this study will be used to make informed decisions and allow the government for the design and implementation of interventions to improve the uptake of long-acting reversible contraceptive method services.

Confidentiality: The information you provide in this questionnaire will be accessible only to the investigators and your identity will not be revealed in any presentation or publications of this study and will not be discussed in any forum. Names shall not be used in this study; I shall assign a registration number to your questionnaire and confidential information will only be used for research purposes.

Compensation: Participants will not receive compensation for participating in the study. All efforts have been made to ensure that the study's conduct minimizes risks of injury and discomfort to the participants.

Statement of Consent

..... Has described to me what is going to be done, the risks, the benefits involved, and my rights as a participant in this study. I understand that my decision to participate in this study will not affect me in any way. In the use of this information, my identity will not be disclosed. I am aware that I may withdraw at any time. I understand that by

signing this form, I do not waive any of my legal rights but merely indicate that I have been informed about the research study in which I am voluntarily agreeing to participate. A copy of this form will be provided to me.

Consent: By agreeing to participate, you authorize your participation and the publication of the results.

• Agree ( )

• Don't agree ( )

Participant Name……Signature……Date.....

Interviewer Name……Signature……..Date……

Appendix II

Data Collection Tools: Questionnaire

Questionnaire number: ……..

Section A: Demographic Information

1. What is your age?
   a) Under 20
   b) 20-29
   c) 30-39

d) 40-49
e) 50 and above

2. What is your marital status?
   a) Single
   b) Married
   c) Divorced
   d) Widowed

3. What is your highest level of education?
   a) No formal education
   b) Primary education
   c) Secondary education
   d) Tertiary education

4. What is your employment status?
   a) Employed
   b) Self-employer
   c) Unemployed
   d) Student

5. What is your monthly income?
   a) Less than $100
   b) $100-$500
   c) $500-$1000
   d) More than $1000

6. What is the level of your husband's education? (for married women)
    a) Not gone to school.
    b) Primary
    c) Secondary
    d) College/University

7. What is your occupation?
    a) Government employee
    b) Daily laborer
    c) Business person
    d) Health worker
    e) Others (specify)……

8. What is your Religion?
    a) Christian
    b) Muslim
    c) Traditional African Religion
    d) Others (Specify)……

Section B: Knowledge and Awareness

9. Have you heard about long-acting reversible contraceptive methods (LARCs)?
    a) Yes
    b) No

10. If yes, where did you hear about LARCs? (Select all that apply)
    a) Healthcare provider
    b) Friends/Family

c) Media (TV, Radio, Internet)
d) Community outreach programs

11. Can you name any LARC methods you are aware of? (tick the one she has mentioned)
    a) Intrauterine Device (IUD) - A small device inserted into the uterus to prevent pregnancy.
    b) Implant - A small rod placed under the skin of the upper arm that releases hormones to prevent pregnancy.
    c) Injectable Contraceptive - An injection given every few months to prevent pregnancy.
    d) Hormonal IUD - A type of IUD that releases hormones to prevent pregnancy.

12. How would you rate your knowledge about LARCs?
    a) Excellent
    b) Good
    c) Fair
    d) Poor

13. Do you know where to access LARC services?
    a) Yes
    b) No

Section C: Attitudes and Perceptions

14. How important do you think it is to use contraceptives?
    a) Very important
    b) Important
    c) Neutral

d) Not important

15. What is your perception of LARCs compared to other contraceptive methods?
    a) More effective
    b) Less effective
    c) Equally effective
    d) Not sure
16. Do you believe LARCs have more side effects than other contraceptive methods?
    a) Yes
    b) No
    c) Not sure
17. How comfortable are you with the idea of using a LARC?
    a) Very comfortable
    b) Comfortable
    c) Neutral
    d) Uncomfortable
    e) Very uncomfortable
18. What are your main concerns about using LARCs? (Select all that apply)
    a) Side effects
    b) Cost
    c) Accessibility
    d) Cultural/religious beliefs
    e) Partner's opinion

Section D: Uptake and Usage

19. Have you ever used a LARC method?
    a) Yes
    b) No
20. If yes, which LARC method have you used?

a) Intrauterine Device (IUD)
b) Implant.
c) Injectable Contraceptive.
d) Hormonal IUD.

21. How long have you been using the LARC method?
    a) Less than 6 months
    b) 6 months to 1 year
    c) 1-2 years
    d) More than 2 years
22. What was your main reason for choosing a LARC method?
    a) Long-term protection
    b) Convenience
    c) Recommendation by healthcare provider
    d) Other (please specify) ……
23. If you have never used a LARC, what is the main reason?
    a) Lack of information
    b) Fear of side effects
    c) Cost
    d) Partner's disapproval
    e) Other (please specify……..

Section E: Accessibility and Support

24. How accessible are LARC services in your area?
    a) Very accessible
    b) Accessible
    c) Neutral
    d) Inaccessible
    e) Very inaccessible

25. How satisfied are you with the LARC services provided by healthcare facilities?
    a) Very satisfied
    b) Satisfied
    c) Neutral
    d) Dissatisfied
    e) Very dissatisfied

26. Have you received counseling about LARCs from a healthcare provider?
    a) Yes
    b) No
27. How helpful was the counseling you received?
    a) Very helpful
    b) Helpful
    c) Neutral
    d) Not helpful
    e) Not applicable
28. Do you feel supported by your partner in your contraceptive choices?
    a) Yes
    b) No
    c) Not applicable

Appendix III

Key Informant Guide

Introduction

Hello! My name is [Your Name], and I am a student for the Master of Public Health Leadership (MPHL) at Uganda Christian University. I am conducting a study at Kuajok State Hospital in Warrap State, Republic of South Sudan, to understand the level and

factors associated with the uptake of long-acting reversible contraceptive methods among women of reproductive age. Your participation in this study is valuable and will help us learn more about how to improve access to family planning services.

What This Study Is About

This study aims to explore the reasons why women of reproductive age in Warrap State choose long-acting reversible contraceptive methods or other family planning methods. We are interested in understanding your experiences, beliefs, and the challenges you face with long-acting reversible contraceptive methods.

Your Participation Is Important

The information you share with me will be kept completely confidential. Your name will not be connected to any information collected during the study. Your participation will help us understand the needs of women of reproductive age in Warrap State and identify ways to improve support for the uptake of long-acting reversible contraceptive methods and other family planning methods.

Thank you for your time and willingness to participate!

1. What is your opinion about long-acting reversible contraceptive method services?

1. What do you think are the reasons for women failing to adopt long-acting reversible contraceptive methods and other family planning services?
2. Do u think there are ways women can have better access to FP services? If yes how?
3. Why have you decided to use long-acting reversible contraceptive methods?

5. What improvements would you suggest for LARC services in your area?

6. Would you recommend LARCs to other women?

a) Yes
b) No
c) Not sure

7. What additional information would you like to receive about LARCs?
8. How can healthcare providers better support women in choosing LARCs?

Thank you so much for your time, it has been extremely valuable.

The Research Dissertation Questionnaires translation into Arabic as a second Language in the Republic of South Sudan.

الملاحقttمشاركتي في تقديم معلومات حول هذا الموضوع.

المشاركة الطوعية: مشاركتك في هذه الدراسة طوعية، ويمكنك الانسحاب في أي وقت دون أي عواقب.

إجراء الدراسة: إذا قررت المشاركة، فسأطرح عليك أسئلة حول تجاربك مع استخدام وسائل منع الحمل طويلة المفعول والقابلة للعكس، وستستغرق المقابلة حوالي 15 دقيقة.

المخاطر المحتملة: لا تمثل الأسئلة المدرجة في هذه المقابلة أي مخاطر متوقعة. مخاطر مرتبط بهذه الدراسة. لا يوجد إجراء محفوف بالمخاطر. ومع ذلك، يمكنك اختيار عدم الإجابة على أي سؤال يجعلك غير مرتاح.

الفوائد: ستُستخدم نتائج هذه الدراسة لاتخاذ قرارات مستنيرة وتمكين الحكومة من تصميم وتنفيذ التدخلات لتحسين استخدام خدمات وسائل منع الحمل طويلة المفعول والقابلة للعكس.

السرية: ستكون المعلومات التي تقدمها في هذا الاستبيان متاحة فقط للباحثين ولن يتم الكشف عن هويتك في أي عرض تقديمي أو منشورات لهذه الدراسة. لن يتم استخدام الأسماء في هذه الدراسة. سأخصص رقم تسجيل لاستبيانك، ولن تُستخدم المعلومات السرية إلا لأغراض البحث.

6

التعويض: لن يتلقى المشاركون أي تعويض مقابل مشاركتهم في الدراسة. بُذلت كل الجهود لضمان أن يُقلل إجراء الدراسة من مخاطر الإصابة أو الإزعاج للمشاركين.

بيان الموافقة

أُدرك أن قراري بالمشاركة في هذه الدراسة ..... وصف لي ما سيتم إجراؤه، والمخاطر، والفوائد المترتبة، وحقوقي كمشارك. لن يتم الكشف عن هويتي عند استخدام هذه المعلومات. لن يؤثر عليّ بأي شكل من الأشكال أُدرك أنه بتوقيعي على هذا النموذج، لا أتنازل عن أي من حقوقي القانونية، بل أُشير أُدرك أنه يُمكنني الانسحاب في أي وقت سأُزود بنسخة من هذا النموذج. فقط إلى أنني قد أُبلغت بالدراسة البحثية التي أوافق طواعيةً على المشاركة فيها.

الموافقة: بموافقتك على المشاركة، تُقرّ بمشاركتك ونشر النتائج.

- ( )موافق

- ( )غير موافق

.....التاريخ .....التوقيع .....اسم المشارك

.....التاريخ .....التوقيع .....اسم المُقابل

الملحق الثاني

استبيان :أدوات جمع البيانات

.....رقم الاستبيان:

القسم أ: المعلومات الديموغرافية

1. ما هو عمرك؟

أ) أقل من 20 عامًا

ب) 20-29 عامًا

ج) 30-39 عامًا

د) 40-49 عامًا

هـ) 50 عامًا فأكثر

2. ما هي حالتك الاجتماعية؟

أ) أعزب

ب) متزوج

ج) مطلق

د) أرمل

3. ما هو أعلى مستوى تعليمي حصلت عليه؟

أ) بدون تعليم رسمي

ب) تعليم ابتدائي

ج) تعليم ثانوي

د) تعليم عالي

4. ما هي حالتك الوظيفية؟

أ) موظف

ب) صاحب عمل خاص

ج) عاطل عن العمل

د) طالب

5. ما هو دخلك الشهري؟

أ) أقل من 100 دولار

ب) من 100 إلى 500 دولار

ج) من 500 إلى 1000 دولار

د) أكثر من 1000 دولار

6. ما هو مستوى تعليم زوجك؟ (للنساء المتزوجات)

أ) غير ملتحق بالمدرسة.

ب) ابتدائي

ج) ثانوي

د) جامعة/كلية

7. ما هي مهنتك؟

أ) موظف حكومي

ب) عامل يومي

ج) رجل أعمال

د) عامل صحي

هـ) أخرى (حدد).....

8. ما هي ديانتك؟

أ) مسيحي

مسلم (ب

ديانة أفريقية تقليدية (ج

أخرى (حدد)..... (د

المعرفة والوعي :القسم ب

٩. هل سمعتِ عن وسائل منع الحمل طويلة المفعول والقابلة للعكس (LARCs)؟

نعم (أ

لا (ب

١٠. إذا كانت الإجابة بنعم، فأين سمعتِ عن وسائل منع الحمل طويلة المفعول والقابلة للعكس؟ (اختر كل ما ينطبق)

مقدم الرعاية الصحية (أ

العائلة/الأصدقاء (ب

وسائل الإعلام (التلفزيون، الراديو، الإنترنت) (ج

برامج التوعية المجتمعية (د

١١. هل يمكنكِ ذكر أي وسائل منع حمل طويلة المفعول والقابلة للعكس تعرفينها؟ (ضعي علامة على الخيار الذي ذكرته)

اللولب الرحمي (IUD) - جهاز صغير يُدخل في الرحم لمنع الحمل. (أ

الغرسة - قضيب صغير يُوضع تحت جلد الجزء العلوي من الذراع ويُفرز هرمونات لمنع الحمل. (ب

وسائل منع الحمل عن طريق الحقن - حقنة تُعطى كل بضعة أشهر لمنع الحمل. (ج

١٢. كيف تُقيّم معرفتك بوسائل منع الحمل طويلة الأمد؟

ممتاز (أ

جيد (ب

مقبول (ج

ضعيف (د

١٣. هل تعرف أين يُمكنك الحصول على خدمات وسائل منع الحمل طويلة الأمد؟

نعم (أ

لا (ب

القسم ج: المواقف والانطباعات

١٤. ما مدى أهمية استخدام وسائل منع الحمل برأيك؟

مهم جدًا (أ

مهم (ب

محايد (ج

غير مهم (د

١٥. ما رأيك بوسائل منع الحمل طويلة الأمد مقارنةً بوسائل منع الحمل الأخرى؟

أكثر فعالية (أ

أقل فعالية (ب

بنفس الفعالية (ج

غير متأكد (د

١٦. هل تعتقد أن وسائل منع الحمل طويلة الأمد لها آثار جانبية أكثر من وسائل منع الحمل الأخرى؟

نعم (أ

لا (ب

غير متأكد (ج

ما مدى ارتياحك لفكرة استخدام وسيلة منع حمل طويلة الأمد؟ .١٧

مريح جدًا (أ

مريح (ب

محايد (ج

غير مريح (د

غير مريح جدًا (هـ

(اختر كل ما ينطبق)ما هي مخاوفك الرئيسية بشأن استخدام وسائل منع الحمل طويلة الأمد؟ .18

الآثار الجانبية (أ

التكلفة (ب

إمكانية الوصول (ج

الدينية/المعتقدات الثقافية (د

رأي الشريك (هـ

القسم د: الاستخدام والاستخدام

هل سبق لكِ استخدام وسيلة منع حمل طويلة الأمد؟ .19

نعم (أ

لا (ب

إذا كانت الإجابة بنعم، فأي وسيلة منع حمل طويلة الأمد استخدمتِها؟ .20

اللولب الرحمي (أ

الغرسة (ب

حقن منع الحمل (ج

اللولب الهرموني (د

21. منذ متى وأنتِ تستخدمين وسيلة منع الحمل طويلة الأمد؟

أشهر 6أقل من (أ

أشهر إلى سنة 6من (ب

من سنة إلى سنتين (ج

أكثر من سنتين (د

22. ما هو السبب الرئيسي لاختياركِ وسيلة منع الحمل طويلة الأمد؟

الحماية طويلة الأمد (أ

الراحة (ب

توصية من مقدم الرعاية الصحية (ج

..... (يرجى التحديد)أخرى (د

23. إذا لم تستخدمي أبدًا موانع الحمل طويلة الأمد، فما السبب الرئيسي؟

نقص المعلومات (أ

الخوف من الآثار الجانبية (ب

التكلفة (ج

عدم موافقة الشريك (د

.....يرجى التحديد)أخرى (هـ

إمكانية الوصول والدعم :القسم هـ

24. ما مدى سهولة الوصول إلى خدمات موانع الحمل طويلة الأمد في منطقتك؟

أ) سهلة الوصول للغاية

ب) سهلة الوصول

ج) محايدة

د) غير قابلة للوصول

هـ) غير قابلة للوصول على الإطلاق

25. ما مدى رضاك عن خدمات موانع الحمل طويلة الأمد التي تقدمها مرافق الرعاية الصحية؟

أ) راضٍ جدًا

ب) راضٍ

ج) محايد

د) غير راضٍ

هـ) غير راضٍ جدًا

26. هل تلقيتِ استشارات حول موانع الحمل طويلة الأمد من مقدم رعاية صحية؟

أ) نعم

ب) لا

27. ما مدى فائدة الاستشارات التي تلقيتِها؟ أ) مفيد جدًا

ب) مفيد

محايد (ج

غير مفيد (د

غير منطبق (هـ

28. هل تشعرين بدعم شريك حياتكِ في اختياراتكِ لوسائل منع الحمل؟

نعم (أ

لا (ب

غير منطبق (ج

الملحق الثالث

دليل المُخبرين الرئيسيين

مقدمة

مرحبًا! اسمي [اسمك] وأنا طالبة ماجستير في قيادة الصحة العامة (MPHL)، في جامعة أوغندا المسيحية. أُجري دراسة في مستشفى كواجوك الحكومي في ولاية واراب، جمهورية جنوب السودان، لفهم مستوى استخدام وسائل منع الحمل طويلة المفعول والقابلة للعكس بين النساء في سن الإنجاب والعوامل المرتبطة بذلك. مشاركتكم في هذه الدراسة قيّمة وستساعدنا على معرفة المزيد حول كيفية تحسين الوصول إلى خدمات تنظيم الأسرة.

موضوع هذه الدراسة

تهدف هذه الدراسة إلى استكشاف أسباب اختيار النساء في سن الإنجاب في ولاية واراب لوسائل منع الحمل طويلة المفعول والقابلة للعكس أو غيرها من وسائل تنظيم الأسرة. نحن مهتمون بفهم تجاربكم ومعتقداتكم والتحديات التي تواجهونها مع وسائل منع الحمل طويلة المفعول والقابلة للعكس.

مشاركتكم مهمة

ستساعدنا .ولن يُربط اسمكم بأي معلومات جُمعت خلال الدراسة .ستُحفظ المعلومات التي تُشاركونها معي بسرية تامة مشاركتكم في فهم احتياجات النساء في سن الإنجاب في ولاية واراب، وتحديد سبل تحسين الدعم المُقدم لاستخدام وسائل منع الحمل طويلة المفعول والقابلة للعكس وغيرها من وسائل تنظيم الأسرة.

شكرًا لوقتكم واستعدادكم للمشاركة!

1. ما رأيكم في خدمات وسائل منع الحمل طويلة المفعول والقابلة للعكس؟

1. ما هي برأيكم أسباب عدم اعتماد النساء لوسائل منع الحمل طويلة المفعول والقابلة للعكس وغيرها من خدمات تنظيم الأسرة؟

2. هل تعتقدون أن هناك طرقًا تُمكّن النساء من الوصول بشكل أفضل إلى خدمات تنظيم الأسرة؟ إذا كانت الإجابة بنعم، فكيف؟

3. لماذا قررتم استخدام وسائل منع الحمل طويلة المفعول والقابلة للعكس؟

٥. ما هي التحسينات التي تقترحينها لخدمات وسائل منع الحمل طويلة الأمد في منطقتكِ؟

٦. هل تُوصين بوسائل منع الحمل طويلة الأمد للنساء الأخريات؟

أ) نعم

لا (ب

لستُ متأكدة (ج

٧. ما هي المعلومات الإضافية التي ترغبين في الحصول عليها حول وسائل منع الحمل طويلة الأمد؟

٨. كيف يُمكن لمقدمي الرعاية الصحية دعم النساء بشكل أفضل في اختيار وسائل منع الحمل طويلة الأمد؟

شكرًا جزيلًا لكِ على وقتكِ الثمين.

Appendix IV: Timeframe/ Budget. **Timeline**

Activities	1-May	1-Jun	1-Jul	1-Aug	1-Sep	1-Oct	1-Nov	1-Dec
Introduction								
literature reviews								
Methodology								
Development of data collection tools								
Ethical approval								
Pilot testing of tools								
Data collection								
Data Analysis								
Report writing								
Dissemination of the findings								

Budget

	Units	Rate	Quantity	No days	Total
Personnel	person	10	6	5	300
Travel	Trip	5	6	2	60
Material and Supplies	paper	100	1	1	100
Administration	USD	50	1	1	50
Result dissertation	USD	50	1	1	50
Contingency	USD	50	1	1	50
Reimbursement of time	USD	50	1	1	50
Total					**660**

Appendix V: Support documents (Permission letters).

I. Letter of approval from the Institutional Review Board
II. Letter of support from the State Ministry of Health (SMoH) for Warrap State

UCUREC and SMoH approval letter for data collection.pdf