HUSBAND-WIFE DYNAMICS PREDICTING MODERN CONTRACEPTIVE USE AMONG COUPLES ATTENDING THE CHILD HEALTH CLINIC AT WEBUYE COUNTY HOSPITAL, WESTERN KENYA

BY

DOUGLAS WANJALA MAKALI

A Thesis Submitted in Partial Fulfillment for the Award of the Degree of Master of Medicine in Family Medicine (M.Med. FM) of Moi University.

DECLARATION

Declaration by the Candidate:

I declare that this thesis is my original work and that it has not been presented to any other training institution as a research paper for the award or conferment of any academic degree.

Douglas Wanjala Makali

SM/PGFM/03/18

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

Declaration by the Supervisors:

We, the undersigned, confirm that this thesis has been submitted for examination with our approval as the university supervisors.

1. Dr. James Akiruga Amisi

Department of Family Medicine, Medical Education and Community Health, Moi University.

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

2. Dr. Elias Hussein

Department of Family Medicine, Medical Education and Community Health, Moi University.

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

DEDICATION

I dedicate this work to my wife Maureen and daughter Tatiana.

ABSTRACT

Background: Despite the pledge by the international community through the United Nations to make Reproductive health services accessible to all by 2015, use of modern contraceptive methods is still low globally. In Kenya, this is exemplified by the health facility assessments which show that commodities for Family Planning (FP) in health facilities either expire or are redistributed because the utilization rates are low. Although studies elsewhere have shown that couple dynamics play an important role in FP use, there is lack of local studies on the same. This study sought to fill this gap.

Objective: To examine couple dynamics that predict modern contraceptive use among couples attending the Child Health Clinic (CHC) at Webuye County Hospital (WCH), western Kenya.

Methods: A hospital-based cross-sectional study employing quantitative methods was used. The study was conducted at the CHC of WCH, western Kenya between February and September 2021 on 272 couples who met the eligibility criteria. A pretested interviewer-administered questionnaire was used for data collection. A systematic sampling method was used to select study participants. Clients who came without their spouse were requested to come with them at a later agreed date and place of their convenience for the interview. The questionnaires were checked daily for completeness. The data was cleaned, entered and analyzed using Statistical Package for Social Sciences (SPSS) version 23. Descriptive statistics (frequencies and proportions) were used to summarize data from the categorical variables including background characteristics of the respondents. Pearson's Chi-square statistic was used both in the bivariate and multivariate models to test for the association between predictor variables and outcome variables.

Results: When the husband did not want additional children the odds of using FP was 2.7 (95% CI: 1.59-4.61; $p<0.001$). When the husband wanted spacing of longer duration than the wife the odds of using FP was 1.9 (95% CI: 1.12-3.21; $p<0.001$). More than 90% of the couples with concordance made the decision regarding FP use, desired family size, and spacing of children jointly; while in 32.9% of the couples with concordance, the decision regarding choice of a contraceptive method was made by the wife only. There was a positive association between spousal concordance on making FP decisions, and modern contraceptive use (AOR: 2.2; 95% CI: 1.29-4.56; $p<0.001$). 64% of the couples reported having communicated about FP. The odds of couples using a contraceptive method after having communicated about FP was 12.6 (95% CI: 6.81-24.4; $p<0.001$). There was a positive association between spousal communication about FP, and spousal concordance on making decision regarding FP use (AOR: 8.18; 95% CI: 4.58-15.1; $p<0.001$).

Conclusion: Despite majority of the couples having made the decision regarding FP jointly, there was increased odds of contraceptive use whenever the husband did not want additional children and whenever the husband wanted to space children for longer duration than wife; suggesting that husbands play a more influential role in family planning.

Recommendations: We should enhance male spouse involvement in FP by operationalizing ministry of health's guidelines on ways of engaging men in family planning.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGEMENT

I would like to acknowledge Moi University's School of Medicine and the Dean School of Medicine for the impeccable support they offered me during my training in this program. I would also like to thank the Department of Family Medicine including the faculty, registrars and support staff for their invaluable support.

I would like to express much gratitude to my supervisors Dr. James Akiruga Amisi and Dr. Elias Hussein both with Moi University's School of Medicine; Department of Family Medicine, Medical Education and Community Health for their guidance without which this work would not be possible.

I wish to acknowledge the late Dr. Patrick Chege-formerly with the Department of Family Medicine, Medical Education and Community Health at Moi University for his guidance at the beginning of the study. Also much thanks to the biostatistician Prof. Ann Mwangi.

I also wish to acknowledge Moi University's Institutional Research and Ethics Committee (IREC) for granting me permission to conduct this study.

My gratitude also goes to the Medical Superintendent and the management of the Child Health clinic of Webuye County Hospital, my research assistant and all the participants who accepted to be part of this study.

I acknowledge my family including my dear wife Maureen, daughter Tatiana, and my parents for their moral support.

Above all, I thank the Almighty God for enabling me reach this far in my academic journey.

ABBREVIATIONS

AIDS- Acquired Immunodeficiency Syndrome

APHRC- African Population and Health Research Center

BCRH- Bungoma County Referral Hospital

CHC- Child Health Clinic

CHWs- Community Health Workers

CIP- Costed Implementation Plan

CRP- Contraceptive Prevalence Rate

DHIS- District Health Information System

FP- Family Planning

RH/FP- Reproductive Health/Family Planning

FP2020- Family Planning 2020

GoK- Government of Kenya

HIV- Human Immunodeficiency Virus

HIV-AIDS- Human Immunodeficiency Virus-Acquired Immunodeficiency Syndrome

ICPD- International Conference on Population and Development

IREC- Institutional Review and Ethics Committee

KDHS- Kenya Demographic and Health Survey

KNCHR- Kenya National Commission on Human Rights

LMICs- Low and Middle Income Countries

MDG- Millennium Development Goals

MoH- Ministry of Health

NACC- National Aids Control Council

NCAPD- National Coordinating Agency for Population and Development

NCPD- National Council of Population and Development

OXFAM- Oxford Committee for Famine Relief

PEPFAR- The U.S. President's Emergency Plan for AIDS Relief

PPND- Population Policy for National Development

RH- Reproductive Health

SDG- Sustainable Development Goals

STIs- Sexually Transmitted Infections

UNDESA- United Nations Department of Economic and Social Affairs

UN- United Nations

UNPF- United Nations Population Fund

USAID- United States Agency for International Development

WCH- Webuye County Hospital

WFP- World Family Planning

WHO- World Health Organization

WPP- World Population Prospect

OPERATIONAL DEFINITION OF KEY TERMS

Unmet Need for Family Planning: is defined as the percentage of women of reproductive age, either married or in a union, who have an unmet need for family planning. Women with unmet need are those who want to stop or delay childbearing but are not using any method of contraception (UN, 2014).

Total Fertility Rate: refers to total number of children born or likely to be born to a woman in her life time if she were to subject to the prevailing rate of age-specific fertility in the population (WHO, 2017b).

Maternal Death: is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes (Population Research Institute, 2014).

Live Birth: refers to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life- e.g. beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscles- whether or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered live born (WHO, 2014).

Maternal Mortality Ratio: refers to the annual number of female deaths per 100,000 live births from any cause related to or aggravated by pregnancy or its management but excluding accidental or incidental causes (Population Research Institute, 2014).

Maternal Mortality Rate: refers to the number of maternal deaths (direct or indirect) in a given period per 100,000 women of reproductive age during the same time period (Population Research Institute, 2014).

Infant Mortality: refers to the death of young children under age 1 (WHO, 2015).

Infant Mortality Rate: refers to the number of deaths of children under one year of age per 1000 live births (WHO, 2015).

Unsafe Abortions: refers to those abortions performed by unskilled individuals, with hazardous equipment, or in unsanitary facilities (WHO, 2014).

Induced Abortion: refers to an abortion that is brought about intentionally (ACOG, 2015).

Couple/Husband-Wife: according to Haviland A.W. et al in their book titled, "Cultural Anthropology: The Human Challenge", a couple is defined as a culturally sanctioned union between two or more people that establishes certain rights and obligations between these people, between them and their children, and between them and their in-laws (Haviland et al., 2013; Tilahun, 2014).

Modern Contraceptive Methods: refers to a product or medical procedure that interferes with reproduction from acts of sexual intercourse (Hubacher & Trussell, 2015).

Modern Contraceptive Use: as operationalized in this study refers to those currently using a modern contraceptive method.

Modern Contraceptive non-Use: defined in this study as those not currently using a modern contraceptive method.

Decision-making Power: as operationalized in this study means the authority, ability, capacity or capability of making choices or reaching decisions or having the final say on family planning matters.

Concordance and Discordance: concordance is defined as agreement in spouses' or partners' responses. Hence spouses are classified as concordant when responses from both spouses match. On the other hand, discordance is defined as lack of agreement in responses between spouses. As a result, spouses are classified as discordant when responses from both spouses do not match. In this study, the terms spousal concordance/discordance and spousal agreement/disagreement have been used interchangeably.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

Despite the pledge by the international community at the United Nations' International Conference on Population and Development (ICPD) held in Cairo, Egypt in 1994 to make Reproductive health services including Family Planning (FP) accessible to all by 2015 (UN & ICPD, 1994), use of modern contraceptive methods is still low globally (UN & WFP, 2017). In Kenya, this is exemplified by the health facility assessments which show that commodities for family planning in health facilities either expire or are redistributed because the utilization rates are low (MoH, 2014).

Only 11,190 out of 28,970 women of reproductive age (15-49 years) in Webuye East sub-County were using a modern contraceptive method (as at 1st February, 2019). This is according to the District Health Information System (DHIS 2) figures (DHIS, 2018) accessed by an authorized government employee at Webuye County Hospital (WCH). This translates to about 38.6% of modern contraceptive uptake (DHIS, 2018).

The low contraceptive prevalence rate (CPR) has contributed to the increased number of unintended pregnancies/births which account for an estimated 35% of all births in Kenya (KDHS, 2014). These unintended pregnancies have contributed to the increased rate of unsafe abortions which have in turn contributed to the increased maternal mortality rate (Guttmacher, 2012). According to the DHIS 2 data, the current maternal mortality ratio for Bungoma County is 382 maternal deaths per 100,000 live births as compared to the national

estimate of 362 maternal deaths per 100,000 live births (DHIS, 2018). This could be averted with increased use of modern contraceptive methods.

Decision-making and spousal communication play significant role in ensuring informed choice in couples' fertility preferences (Olawole-Isaac et al., 2018). Over the years, strategies involving spousal communication in regard to family planning have gained attention as an important means of reducing gender inequality as far as couples' fertility intentions and preferences are concerned (Adeyinka et al., 2012; Lakshmi et al., 2013; Link, 2011b). Evidence from literature shows that spouses who communicate about the number of children are more likely to be concordant on fertility-related decision-making (Olawole-Isaac et al., 2018).

Yet the linkage between spousal communication about family planning, and spousal concordance on fertility decisions has not been well explored (Underwood et al., 2019). In fact, the association between the two is often assumed and seldom studied (Olawole-Isaac et al., 2018). Thus, the association between them (spousal communication and decision-making regarding FP) is arguably the missing link in understanding how spousal communication affects fertility related practices (Prata et al., 2017).

Spousal agreement and concordance on fertility desires plays an important role in improving modern contraceptives uptake (Challa et al., 2018; Tilahun, 2014; Uddin et al., 2017). On the other hand, spousal disagreement or discordance can serve as a deterrent to family planning use (Diro & Afework, 2013). As such, determining the concordance and discordance between the wife and husband is important in family planning since it has a

bearing on a couples' fertility desires and intentions (Dixit et al., 2021; Underwood et al., 2019).

Evidence show that couples who communicate about family planning are more likely to use a modern contraceptive method than those who do not (Irani et al., 2014; Link, 2011a; Olawole-Isaac et al., 2017).

However, some researchers caution that the fact that spouses have communicated about family planning does not necessarily mean they would approve use of a modern contraceptive method (Dodoo et al., 2001). Similarly, a lack of spousal communication on family planning should not be assumed to denote disapproval of contraceptive use (Araoye, 2006).

Most studies about family planning are focused on women despite evidence indicating that contraceptive use and fertility levels are greatly influenced by their male partners (Tilahun, 2014). Although demographic studies on fertility have historically focused exclusively on women, there is increasing realization by researchers that decisions regarding child bearing lie with both spouses and not solely with women (Link, 2011a). As a result, there is a growing popularity in the use of matched data from couples in reproductive health studies as collecting data from one spouse exclusively might not obtain high quality data (Shakya et al., 2018).

Studies have shown that incorporating both spouses' attitudes, as opposed to including those of just one spouse, improves the predictability of modern contraceptive use (Kulczycki, 2008; Yue et al., 2010). Yet results vary regarding which partner's fertility intentions has the greater predictive value as far as modern contraceptives use is concerned

(Prata et al., 2017). For example, while (Tilahun, 2014) and (Diro & Afework, 2013) found that it is the husband's fertility intentions that is significant in determining family planning use, (Maharaj & Cleland, 2005) found that it is the wife's fertility intentions that is key predictor of contraceptive use.

Globally, studies have shown that decision making by husbands alone is associated with lower uptake of contraceptive methods as compared to concordant joint decision making (Uddin et al., 2017). Use of modern contraception by women is also significantly predicted by husband-wife concordance or discordance on FP decision-making power (Dixit et al., 2021).

Likewise, spousal communication has been identified as one of the most cardinal and direct predictors of contraceptive use as it brings about equitable gender norms and promotes joint decision making on FP matters (Mishra et al., 2014; Uddin et al., 2017). However, involving husbands in FP does not necessarily result to women's empowerment or positive outcomes (Hameed et al., 2014).

In sub-Saharan Africa, it was found in a study in Niger that despite there being joint decision-making on FP, husbands have the final say when it comes to actual use of modern contraception (Challa et al., 2018). Although both wives and husbands had reported joint decision-making, husbands reported it more than wives (Challa et al., 2018). This indicates that there is spousal discordance on FP matters and it has been supported by other studies elsewhere; for example in Ethiopia, studies found considerable discordance in desired fertility between husband and wife (Diro & Afework, 2013; Tilahun et al., 2014).

Still in Ethiopia, it was found that husbands' position in the cultural norms enable them to decide upon contraceptive and fertility intention (Mesfin, 2002); while decision making power on modern contraceptives use was found to be higher among women in urban than rural areas (Bogale et al., 2011). Another study among Mozambican women revealed that husbands' decision making power on FP had a significant negative impact on their wives' intention to use a contraceptive method (Mboane & Bhatta, 2015). In East Africa, a study in Tanzania indicated that wives found it difficult to initiate discussions about FP as they perceived husbands largely made important family decisions (Mosha et al., 2013).

My literature search for Kenyan studies on husband-wife dynamics predicting use of family planning yielded very few studies. In one study, perception of the wife towards her husband's approval was found to be an important factor since the couple's participation in family planning is influenced by the husband (Lasee & Becker, 1997). It also found strong association between spousal communication and contraceptive use (Lasee & Becker, 1997). Another study recommended that gender norms that are culturally sanctioned must be considered and challenged when involving husbands in family planning through spousal communication in order to develop an approach that is more responsive (Onyango et al., 2010a).

Studies in western Kenya related to this study are also limited and have had varied results. In one study in Vihiga County, it was found that while husbands dictate on their wives' use of a modern contraceptive method, majority of men had never discussed family planning with their spouses (Adagala, 2014). The same study found out that cultural beliefs influence husbands' ability and willingness to use a contraceptive method (Adagala, 2014). An

internet search on Google Scholar and PubMed on studies about husband-wife dynamics predicting family planning use did not find any local studies.

This study examined the husband-wife dynamics predicting modern contraceptive use among couples attending the Child Health Clinic (CHC) at Webuye County Hospital, in western Kenya. As there were no local studies about couple dynamics in regard to family planning, this study sought to address this gap.

1.2 Problem Statement

Studies have shown that husband-wife dynamics play a significant role in family planning use (Challa et al., 2018; Diro & Afework, 2013; Sharan & Valente, 2002; Tilahun, 2014; Uddin et al., 2017). But while there exists an abundance of studies on knowledge, practice and attitude towards family planning, research dealing on husband-wife dynamics that may influence use of modern contraception is often overlooked (Cox et al., 2013). This is more so in western Kenya where no single study on the role of couple dynamics in modern contraceptives use was found during an internet search on Google Scholar and PubMed.

Available studies in western Kenya are mostly about knowledge, practice and attitude towards family planning. For example one study showed that men's approval is a key predictor of modern contraceptive use by women (Nangendo, 2012); and that perceptions of women about men's approval of modern contraceptive use positively influence family planning practice by women (Mutombo et al., 2014). Another study revealed that high levels of knowledge on contraceptive methods did not translate to increased uptake of modern contraception (Adagala, 2014). It further revealed that cultural beliefs influences men's ability and willingness to use modern contraceptive method (Adagala, 2014).

The fact that no studies about husband-wife dynamics predicting modern contraceptive use were found in western Kenya; and yet couple dynamics have been shown to be an important predictor of family planning use, means that there is a research gap in this region that the findings of this study will help address. Moreover, the uptake of modern contraceptive methods in Bungoma County was estimated to be lower among married or in-union women than among sexually active unmarried women- 53.9% and 61% respectively (KDHS, 2014).

1.3 Justification

There is low uptake of modern contraceptive methods in Webuye East sub-County which is estimated at 38.6% (DHIS, 2018). Therefore, it is hoped that the study findings can be incorporated into strategies and initiatives used in family planning policy and programs that may specifically target couples in the study area thereby contributing to improved uptake of modern contraceptive methods among those couples.

The improved uptake of modern contraceptive methods may in turn help improve the couples' economic prospects by empowering women to attain higher education and seek better employment opportunities. It may also help contribute to reducing the current maternal mortality ratio for Bungoma County of 382 maternal deaths per 100,000 live births; which is relatively higher than the national average of 362 maternal deaths per 100,000 live births (DHIS, 2018)- through reduction in unintended pregnancies and unsafe abortions. Moreover, improved uptake of contraceptive methods can also help couples in the study area reduce transmission of HIV and STIs through the use of barrier methods such as condoms.

The findings of this study will also be shared with various stakeholders of family planning including health facilities providing family planning services, county government, national government, non-governmental organizations and other international organizations involved in reproductive health services. Hence it is hoped that by sharing the findings of this study, provision of family planning services will be improved through influencing change of practice. Additionally, the findings of this study can be integrated in family planning programs at various health care facilities. Furthermore, the study findings, apart from being presented at national and international conferences, will also be published in journals with wider readership thereby contributing to science and influencing policy both at county, national and international levels.

1.4 Objectives

1.4.1 Broad Objective

To examine the husband-wife dynamics that may predict family planning and modern contraceptive use among couples attending the Child Health Clinic at Webuye County Hospital, western Kenya.

1.4.2 Specific Objectives

i. To determine the level of concordance between the husband and wife on decision-making power regarding family planning matters; and its association with modern contraceptive use
ii. To determine the level of communication between the husband and wife about family planning; and its association with modern contraceptive use

iii. To determine the association between spousal communication about family planning, and spousal concordance on decision-making power regarding family planning

1.5 Research Questions

i. What is the level of concordance between the husband and wife on decision-making power regarding family planning matters; and how does it affect modern contraceptive use?

ii. What is the level of spousal communication about family planning; and how does it affect uptake of modern contraceptive methods?

iii. Is there a relationship between spousal communication about family planning, and spousal concordance on decision-making power regarding family planning matters?

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Background

Family planning plays an important role in protecting women from unintended pregnancies thereby reducing the need for unsafe abortions with resultant reduction in maternal and infant mortality rates (UN, 2019). The barrier methods such as condoms help to prevent transmission of human immunodeficiency virus (HIV) & other sexually transmitted infections (STIs) and reduces the risk of unintended pregnancies among women living with HIV resulting in fewer infected babies and orphans (USAID, 2021). Beyond improving maternal and child health, family Planning can result in higher educational attainment, better employment opportunities and empowerment for girls and women (GoK & FP2020, 2017). Moreover, family planning is key to slowing down unsustainable population growth and the resulting negative impact on the economy, environment and development efforts (WHO, 2017a).

According to the World Population Prospects: The 2017 Revision published by the United Nations Department of Economic and Social Affairs (UNDESA), the current world population of 7.6 billion is expected to reach 8.6 billion in 2030, 9.8 billion in 2050 and 11.2 billion in 2100, with roughly 83 million added to the world's population every year (UN & WPP, 2017). Between 2017 and 2050, the populations of 26 African countries, including Kenya, are projected to expand to at least double their current size (UN & WPP, 2017).

Although the total fertility rate in Kenya has decreased from 4.9 births per woman to 3.9 births per woman (KDHS, 2014) compared to Africa's total fertility reduction from 5.1 births per woman to 4.7 births per woman (APHRC, 2018) in a little over a decade between 2000-2005 and 2010-2015, there is still need to increase modern contraceptive uptake which according to the Kenya Demographic and Health Survey (KDHS) 2014 is currently estimated at 53.2% nationwide and 53.9% in Bungoma County- the region of this study (KDHS, 2014).

Modern contraceptive use continues to be low in sub-Saharan Africa as compared to other parts of the world, especially in Asia and Latin America (UN & WFP, 2017). Globally, use of modern contraception has risen slightly, from an estimated 54% in 1990 to 57.4% in 2015 (UN & UNDESA, 2019). Regionally, the proportion of women aged 15-49 years reporting use of a modern contraceptive method has risen minimally or plateaued between 2008 and 2015 (APHRC, 2018). In Asia for example, it has risen slightly from an estimated 60.9% to 61.8% (UN & WPP, 2017), and in Latin America and The Caribbean it has remained stable at an estimated 66.7% (UN & WFP, 2017).

In sub-Saharan Africa, use of modern contraceptive methods is estimated at 23.6% (UN & UNDESA, 2019), while that of East Africa is estimated at 35.9% (Izugbara et al., 2018). This compares to Kenya's national estimated use of modern contraceptive methods of 53.2% (KDHS, 2014). Bungoma County's estimated use is 53.9% (KDHS, 2014). In Webuye East sub-County- the area of the current study, the use of modern contraceptive methods (as at 1st February 2019) is estimated at 38.6% (DHIS, 2018).

According to the World Health Organization (WHO), an estimated 38% of pregnancies worldwide are unintended (both mistimed & unwanted), while an estimated 25 million unsafe abortions are procured each year, with 97% of those occurring in developing countries (WHO, 2014). Here in Kenya, an estimated 35% of births are unintended- 10% unwanted & 25% mistimed (KDHS, 2014); while an estimated 464,690 induced abortions occurred in 2012- corresponding to an induced abortion rate of 48 abortions per 1000 women of reproductive age (15-49 years), and an induced abortion ratio of 30 abortions per 100 births (according to Guttmacher Institute in collaboration with Kenya's ministry of health and African Population and Health Research Center [APHRC]) (Guttmacher, 2012). It has been estimated that up to 30% of the 47,000 maternal deaths- mostly in developing countries, occurring from the estimated 25 million unsafe abortions each year globally can be averted with the use of modern contraception (UN & WFP, 2017).

Although the International Conference on Population and Development (ICPD) held in Cairo, Egypt in 1994 called for universal access to comprehensive reproductive health services including family planning by 2015 (UN & ICPD, 1994), there are still an estimated 214 million women of reproductive age in developing countries with unmet need for modern contraception (UN & WPP, 2017). This include unmet need for modern contraception in Asia estimated at 10.2% (UN & UNDESA, 2019), Latin America & The Caribbean at 10.7% (UN & WFP, 2017), and Africa continent at 22% (UN & WFP, 2017) as compared to sub-Saharan Africa at 24.2% (APHRC, 2018). In East Africa, the unmet need for family planning is estimated at 23.9% (Izugbara et al., 2018). This compares to Kenya's estimated unmet need for family planning of 18% (KDHS, 2014) and that of

Bungoma County which is estimated at 20.7% of currently married women of reproductive age (KDHS, 2014).

It has been estimated that up to one third of maternal deaths occurring in developing countries, including Kenya's maternal mortality ratio of 510 maternal deaths per 100,000 live births (2015 estimate), could be avoided if the unmet need for family planning is fulfilled (UN & WFP, 2017). The current Kenya's maternal mortality ratio is estimated at 362 maternal deaths per 100,000 live births while that of Bungoma County is estimated at 382 maternal deaths per 100,000 live births (DHIS, 2018).

2.2 Introduction

Most studies in family planning focus only on women, ignoring their spouse's role and the interaction between wives and husbands in fertility behavior (Koffi et al., 2012). This approach assumes either that a woman's characteristics can serve as a proxy for the characteristics of the couple (Prata et al., 2017), or that the wife plays the most important role in couple's fertility behavior determination (Shakya et al., 2018). Both of these assumptions have been challenged by research in various parts of the world (Dixit et al., 2021; Link, 2011a; Tilahun, 2014).

Whilst there exist an abundance of studies on knowledge, practice and attitude towards family planning, research dealing about spousal communication and couple dynamics that may influence decision-making regarding FP is often overlooked (Cox et al., 2013). Studies have shown that agreement between husband and wife on contraceptive use contributes to reduced unmet need for family planning (Yadav et al., 2009); while lack of communication

between husband and wife was identified as to have led to increased rate of unmet need for family planning (Berhane, Sibhatu, et al., 2011).

Use of family planning could save the lives of an estimated 150,000 women worldwide annually (UN & WFP, 2017). In Kenya, about 14,700 women and girls die as a result of pregnancy-related complications (GoK & NCAPD, 2010). Prioritizing family planning would avert an estimated 850,000 unintended pregnancies in Kenya in addition to saving an estimated 16,000 children's lives by 2020 (GoK & NCPD, 2015).

Misconceptions about family planning can be minimized or eliminated through stimulating of spousal communication (Ankomah et al., 2011). Therefore any family planning program should constitute promoting spousal communication on family planning as an important pillar in any of its strategies (Bogale et al., 2011; Tilahun, 2014).

Most studies on family planning are focused on women despite evidence indicating that contraceptive use and fertility levels are greatly influenced by husbands (Prata et al., 2017). Many women still need their husband's approval before use of family planning (Tumlinson et al., 2014), and the intentions of the husband may have additional effects on contraceptive practice and fertility by couples as husband's approval determines wife's use of a modern contraceptive method (Lasee & Becker, 1997). Therefore efforts to empower women should be made so as to increase their decision making power even as we integrate husbands in family planning programs (Hameed et al., 2014). Moreover, empowering of women helps in enhancing their decision making power with regard to contraceptive use when speaking with their husbands about family planning (Dixit et al., 2021). Husbands

dictate on their wives' use of a modern contraceptive method in many traditional societies (Mutombo et al., 2014); and husbands' willingness to adopt or allow their wives to use a modern contraceptive method is a major determinant factor of the pace of fertility reduction (Adagala, 2014).

Women have less autonomy in decision making even on matters concerning their reproductive health as the decision to visit a health center is dependent on willingness of the husband (Berhane et al., 2001). However, decisions on family planning made by husbands alone or when other family members are involved in decision-making process is associated with low uptake of modern contraceptive methods (Uddin et al., 2017; Uddin & Pulok, 2016).

East African countries- including Kenya, can sustainably increase uptake of family planning services by promoting decision-making autonomy and empowerment of women through provision of comprehensive sexuality education in schools and promoting the participation of women in the labor force (APHRC, 2018). In Kenya, factors affecting modern contraceptive use are region-specific and require different approaches in areas where unmet need for family planning is high as compared to those that have been successful in Nairobi and Central regions (Omwago & Khasakhala, 2006).

2.3 History of Family Planning in Kenya

Kenya was the first country in sub-Saharan Africa to adopt an official family planning policy in 1967 (MoH, 2007). A rapid increase in contraceptive use was registered in Kenya between 1977 and 1998, with a substantial decline in fertility from 8.1 children per woman in 1977 to 4.7 children per woman in 1998 (GoK, 2011). The Contraceptive Prevalence

Rate (CPR) for modern contraceptive methods during this period increased from 7% in 1977 to 30% in 1998 (MoH, 2012). However, after 1998, the momentum of increase in modern contraceptive use and resultant decline in fertility was lost (WHO & GoK, 2018). The CPR between 1998 and 2003 changed little, while the total fertility rate increased from 4.7 children per woman in 1998 to 4.9 children per woman in 2003 (GoK & NCPD, 2012).

Although there was modest decline in fertility from 4.9 births per woman in 2003 to 4.6 births per woman in 2008-2009, this was a return just below its 1998 level which suggests a decade of potential progress was lost (Gok & NCAPD, 2010).

The stalling of fertility decline in Kenya in the 2000s was partly due to a huge shift in focusing the resources away from family planning to fighting the menace of HIV-AIDs (MoH & Pepfar, 2016). However, the attention to family planning as an integral pillar of a reproductive health strategy was brought back by the revitalization of the national family planning program (GoK, 2011). Since then, family planning services- together with HIV-AIDS programs are widely provided in Kenya through public and private facilities including mobile clinics targeting populations that are hard-to-reach (MoH & USAID, 2021).

2.4 Policy Framework for Family Planning in Kenya

Kenya has policy framework aimed at promoting reproductive health including family planning (GoK & NCAPD, 2010). The 2010 constitution guarantees the individual's rights to the highest attainable quality of health, including reproductive health services such as family planning (GoK & KLR, 2010).

Apart from the constitution, Kenya has also established a number of policies and strategies that aim to promote access to FP services which include Contraceptive Policy and Strategy 2002-2006 (GoK & KNCHR, 2012); the Adolescent Reproductive Health and Development Policy, 2003 (MoH & NCPD, 2003); the Contraceptive Commodities Procurement Plan (MoH, 2016); and the National Reproductive Health Policy, 2007 (MoH, 2007) which was to be implemented through the National Reproductive Health Strategy 2009-2015 (MoH & USAID, 2009).

Additionally, the Contraceptive Commodities Security Strategy 2007-2012 (GoK & KNCHR, 2012); the National Condom Policy and Strategy 2001-2005 (MoH & NACC, 2001); among others, have also been established.

Since independence, the Kenyan government has invested in developing a number of family planning policies, strategies and programs (Gok & Oxfam, 2014). Indeed Kenya has assented to regional and global agreements including Maputo, Abuja, ICPD and FP2020 protocols (WHO & GoK, 2018). However, it has done very little to institutionalize and implement them (UN & USAID, 2016). This can be best exemplified in the Maputo agreement requiring countries to allocate 15% of the health budget towards reproductive health (African Union, 2003); and the Abuja declaration requiring the allocation of 15% towards health (African Union, 2001). This is yet to be met, with only 6% of the 2013/2014 budget allocated to health (MoH & Pepfar, 2016).

Kenya launched the Population Policy for National Development (PPND) in 2012 in a bid to curb rapid population growth and drive development through promotion of voluntary, high-quality family planning (GoK & NCPD, 2012). The PPND aspired to increase

national modern contraceptive use to 58% by 2020 and 64% by 2025 (GoK & NCPD, 2015).

Although Kenya Reproductive Health Policy advocates expanding access to FP services by promoting community based distribution of FP (MoH, 2007), including the recent approval of the distribution of injectable contraceptives in marginalized areas (MoH, 2016), the strategy is not working well (USAID, 2021). This is according to key informants with program implementers and policy makers in RH/FP (USAID, 2021); partly due to reluctance of nurses to implement it as well as lack of resources to fund it including incentives to Community Health Workers (CHWs) (MoH & USAID, 2021).

2.4.1 International Policy Frameworks

Family Planning 2020 (FP2020)

FP 2020 is a global partnership that works with governments, multi-lateral organizations, the private sector, civil society, and the research and development community to support the right of girls and women to decide freely and for themselves about their reproductive health including FP use (GoK & FP2020, 2017); and aims to enable 120 million more girls and women to use contraceptive methods by 2020 (GoK & FP2020, 2017). Although the Kenyan government gave the mandate to implement FP2020 to the National Council of Population and Development (NCPD), the implementation plan for the same is lacking (Owino et al., 2017).

Millennium Development Goals (MDGs)

Although MDG 5, target 5b called for universal access to reproductive health including FP by 2015 (United Nations, 2015), Kenya was still struggling with indicators number 5b

(contraceptive prevalence rate, unmet need for FP among others) by the time MDGs were about to expire (Ngethe, 2014). The MDGs expired at the end of 2015 and were succeeded by the Sustainable Development Goals (SDGs) (UN, 2015).

Sustainable Development Goals (SDGs)

Family Planning is a key to unlocking SDGs (Dockalova et al., 2016). The SDGs form part of the Vision 2030 agenda which includes many targets among them those that make specific references to FP (UN, 2015). They include: target 3.7 of Goal 3 which calls for universal access to sexual and reproductive healthcare services including FP (UN, 2015); and target 5.6 of Goal 5 which calls for universal access to sexual and reproductive health & rights through achieving gender equality and empowering all women and girls (UN, 2015).

However, other Goals are also linked to FP: for example, it is impossible to promote sustained economic growth (Goal 8), ensure quality education for all (Goal 4), end poverty and hunger (Goal 1 and 2) without ensuring universal access to quality FP services (Dockalova et al., 2016).

Link between SDGs and FP2020

There is a direct link between SDGs and FP2020 as both FP2020 and targets 3.7 & 5.6 of SDGs calls for universal access to sexual and reproductive health services including Family Planning (Starbird & Norton, 2016). Hence FP2020 can be used to fulfill the SDGs and vice versa (Dockalova et al., 2016).

International Conference on Population and Development (ICPD)

In 1994, the ICPD held in Cairo Egypt called for all countries to improve reproductive health as a global priority that should be placed at the centre of their development (UN & ICPD, 1994). This was echoed the following year by the United Nations Fourth World Conference (United Nations, 1995). Both Conferences challenged countries to respect the reproductive rights of both women and men and to address gender imbalances as necessary conditions for improving reproductive health (UNPF, 2014).

Kenya has integrated ICPD through the Population Policy for National Development (PPND) which aims at realization of Kenya Vision 2030 which aims at improving the quality of life through Family Planning (GoK & NCPD, 2012).

2.4.2 Regional Policy Frameworks

Abuja Declaration

In 2001, African governments pledged to allocate at least 15% of their annual budgets towards the improvement of the health sector (African Union, 2001). In Kenya however, this is still a dream as the budgetary allocation to health has stagnated at 6% (MoH & USAID, 2021).

Maputo Protocol

The Maputo Protocol requires member countries to pass effective laws criminalizing sexual violence against women (African Union, 2003). The Maputo Plan of Action was aimed at achieving universal access to comprehensive reproductive health and sexual health services on the continent by 2015 (African Union, 2003). It also called for investment of 15% of the health budget to reproductive health (African Union, 2003). Kenya ratified the Maputo Protocol on 8th October 2010 (Gok & Oxfam, 2014).

2.4.3 National Policy Frameworks

National Reproductive Health Policy 2007

It was approved and adopted by Kenya's Ministry of Health in October 2007 (MoH, 2007). It lays emphasis on reaching the marginalized communities and the most vulnerable as well as those in greatest need for sexual and reproductive health services including family planning (MoH, 2007).

National Family Planning Costed Implementation Plan (CIP)

The CIP aims to make FP services more accessible and equitable (MoH, 2014). The CIP budget was costed at Kshs.5,115,542,000 for the financial year 2014/2015 (MoH, 2014).

However, a lack of commitment and political leadership that further the population agenda has hampered its achievement in the recent budgets (Ngethe, 2014).

2.5 Family Planning Budget in Kenya

Investing in Family Planning is key to achieving the Sustainable Development Goals (UN & USAID, 2016). Despite renewed momentum in revitalizing family planning through various global partnerships, initiatives and strategies, like the FP2020, the 2010 "Global Strategy for Women's and Children's Health", the UN Commission on Life-Saving Commodities, Civil Society Organizations, the MDG Health Alliance among other groups, FP investments and access to FP services fall short of need in virtually all the resource-limited settings (Starbird & Norton, 2016). In Kenya, there is low budgetary investment in Family Planning and FP budgets are highly fragmented making it difficult to alleviate the unmet need for FP (Ngethe, 2014).

Despite Kenya's budgetary allocation for FP growing from Kshs.250,000,000 (about US$ 2.5 million) in 2005/2006 to Kshs.660,000,000 (about US$ 6.6 million) in 2012/2013, there was no budgetary allocation for Family Planning during the constitutional change period and throughout the period of devolution from central to county governments (MoH & USAID, 2021); from 2013 to 2017, only Kshs.50,000,000 (about US$ 500,000) was allocated by the government for FP (MoH & USAID, 2021). The family planning budget for Kenya has stagnated over the years despite the Kenyan government committing to about Kshs.600,000,000 per year for the purchase of FP commodities (MoH & Pepfar, 2016).

The Kenyan government allocated Kshs.60 billion to counties for health in the new budget dispensation following the devolution of health to the counties, with each county in turn allocating at least 10% of its allocation to health including FP (MoH & USAID, 2021).

National and county governments can reduce unintended pregnancies and the resultant unsafe abortions and interrupted schooling by making modern contraceptive use a priority in policies, programs and budgets (APHRC, 2018).

About 5,500 mothers are lost in Kenya each year due to complications related to pregnancy and birth (GoK & NCPD, 2015). If family planning were to be prioritized by the county governments, an additional 2,138 mothers' lives would be saved in Kenya by 2020 (GoK & NCPD, 2015).

It is estimated that Kenya would save an additional US$ 80 million in direct healthcare expenses by 2020 if county governments accelerate FP progress (MoH & Pepfar, 2016). Every US$ 1 spent on family planning saves US$ 4.48 in direct healthcare costs in Kenya

(MoH & USAID, 2021). These savings would be increased to US$ 5.46 per US$ 1 spent if county governments accelerate FP progress (GoK & NCPD, 2015)).

A global cost-benefit analysis found that improving access to family planning services for women in the developing low and middle income countries (LMICs) including Kenya could prevent unintended pregnancies and safe abortions which would then translate to large healthcare savings (GoK & NCAPD, 2010).

2.6 Literature Review on Husband-wife Dynamics Predicting Family Planning

The couple is the important unit for finding out challenges faced by modern contraceptives uptake (Tilahun, 2014). As such, a husband-wife relationship is key and should be taken into consideration while carrying out programs in family planning (Diro & Afework, 2013). Any FP program should constitute promoting communication between a husband and wife on FP matters as its important pillar (Olawole-Isaac et al., 2017).

In order to have a good understanding of the fertility desires of the couples, it is important to collect data from both wife and husband separately rather than relying exclusively on the information provided by one of them (Dixit et al., 2021). A strategy approaching a husband and wife as one entity consisting of two people with concomitant dyadic dynamics was thought to be a better way of carrying out FP programs (Shakya et al., 2018).

Most studies on couple dynamics and their associations with family planning come from European and American populations but are sparse in low and middle income countries of Asia, Latin America and Africa (Link, 2011a). Some studies used only women's reports to measure household decision making (Koffi et al., 2012; Tumlinson et al., 2014). This overlooked the concordance or discrepancy between wives' and husbands' reports about

the autonomy of women and the extent to which such discrepancy or concordance may account for differences in use of modern contraceptive methods by women (Olawole-Isaac et al., 2018).

A study in Nigeria revealed considerable amounts of discrepancies between wives' and husbands' reports about who usually makes FP decisions, despite majority of the respondents reporting spousal agreement on decisions regarding family planning (Odusina et al., 2015). In Angola, a study found that decisions made by husband alone tend to be associated with lower likelihood of modern contraceptive use (Prata et al., 2017). Yet, as revealed by another study in Bangladesh, unilateral decision-making by women is not likely to have a positive influence on use of modern contraceptive methods (Uddin et al., 2017).

One study in Honduras showed that men centered decision making reduced as women get older and have more children but which was not supported by another similar study in Philippines (Bogale et al., 2011).

In Turkey, a study indicated that perception of spousal approval and husbands' opposition was associated positively with low contraceptive use (Kulczycki, 2008). The same study also revealed that decisions about child bearing and contraceptive use may be confounded by unequal decision-making power relations, more so in patriarchal societies (Kulczycki, 2008). While in Bangladesh, it was found that couples with shared decision-making ideals and who demonstrate egalitarian gender relations are more likely to use a modern contraceptive method (Uddin et al., 2017).

Studies conducted in sub-Saharan Africa show that secrete use of modern contraceptive methods among women accounts for 6-20% of all modern contraceptive use which suggests that there is a problem of decision making power by wives on modern contraceptive use (Bogale et al., 2011). Indeed, it has been recommended that promotion of spousal communication and joint decision-making on use of family planning among couples should be adopted by the FP programs as a strategy aimed at enhancing use of family planning (Diro & Afework, 2013; Underwood et al., 2019).

Gender roles and norms are important in shaping spousal communication as well as family planning decision-making in sub-Saharan Africa (Mosha et al., 2013), and opposition from male spouses has been cited as a key factor that affects modern contraceptive use (Asa et al., 2018). Husbands have been regarded as barriers to wives' decision-making on modern contraceptive use and fertility (Challa et al., 2018). This is also exemplified in research done in Ghana- as cited in an Ethiopian study, where ancestral customs give men rights over women's power to procreate (Diro & Afework, 2013).

In Nigeria, a study found that modern contraceptive use was higher among urban dwellers as compared to their rural counterparts because discussion between wives and husbands about family planning and its eventual use is encouraged by the conditions in the urban areas (Oyediran et al., 2002). The same study noted that in developing societies, women contribute little to family planning decision-making process yet they are the traditional targets of programs dealing with FP (Oyediran et al., 2002). Still in Nigeria, a study revealed that women are often influenced by their husbands in the use of any method of family planning (Adelekan et al., 2014). While another study found that spousal

communication and decision making contributed significantly in the prediction of couples' family planning use (Oladeji, 2008).

In Zimbabwe, it was found that those wives who did not discuss use of FP with their husbands had a 2.8-fold increased risk for unplanned pregnancy (Kaida et al., 2005). In the neighbouring Malawi, it was found that men who communicated with their wives were more likely to use modern contraceptive methods than those who did not (Shattuck et al., 2011). While in South Africa, a study indicated that contraceptive use is strongly predicted by spousal communication and that wives who discuss FP with their husbands are four and half times more likely to use a contraceptive method than those who do not discuss (De Gita, 2007). Still in South Africa, another study indicated that the effect of spousal communication on FP use may be mediated by each spouse's relative power in decision making process (Maharaj & Cleland, 2005). It also revealed that communication and agreement between couples determines the effectiveness of any FP program (Maharaj & Cleland, 2005).

In Ethiopia, the Africa's second most populous country after Nigeria, it was found that families in which there is discussion between husband and wife on the decision about the number of children were about six times more likely to use family planning (Walle & Alamrew, 2016).

Another study in Ethiopia showed that despite a majority of both urban and rural women reporting joint decision making on contraceptive use, they still waited for the final say from their husbands before they would use a contraceptive method (Bogale et al., 2011). The same study found that decision making regarding modern family planning use did not have

significant statistical difference with educational status, occupation or age groups (Bogale et al., 2011). Still in Ethiopia, high levels of discordance between wife and husband in reported fertility desires were identified (Diro & Afework, 2013; Tilahun, 2014), and the highest levels of modern contraceptive use were found in couples whom only the husband did not desire more children (Tilahun, 2014). This suggests that even though a majority of couples had stated that any decision about FP should be taken jointly by both spouses, the reality was that men had more decision making power regarding modern contraceptive use than their wives (Tilahun, 2014).

In Tanzania, wives reported use of FP methods without the consent of their husbands because of what they perceived as their husbands' tendency to bear many children without caring to provide for them (Mosha et al., 2013). Some women reported using a modern contraceptive method secretly as their husbands oppose modern contraceptive use (Mosha et al., 2013). Another study found that husbands believed that children were a blessing from God and therefore saw no need to discuss family planning issues or desired family size with their wives (Kassa et al., 2014). Men also believed that FP issues is the responsibility of women and therefore they saw no need of discussing it (Ijadunola et al., 2010). On the other hand, wives found it difficult to initiate discussions on FP with their husbands as they perceived that husbands largely made key family decisions (Bayray, 2012). But couples in urban areas reported discussing about FP especially the number of children to have as life in urban areas was considered difficult to bring up many children (Bogale et al., 2011).

In western Kenya, a study recommended that gender norms that are culturally sanctioned must be considered and challenged when involving husbands in FP through spousal

communication in order to develop an approach that is more responsive (Onyango et al., 2010b). Another study indicated that husbands' approval is a key predictor of modern contraceptive use by their wives (Adagala, 2014) and that perceptions of the wives about their husbands approval of contraceptive use positively influence couples' contraceptive practice (Adagala, 2014).

It is well recognized that agreement and concordance on contraceptive use between husband and wife plays a significant role in decreasing the unmet need for FP (Tumlinson et al., 2014; Yadav et al., 2009). On the other hand, spousal disagreement or discordance can serve as a deterrent to family planning use because women might lack the courage to initiate a difficult conversation about use of FP (Diro & Afework, 2013). This can be explained by the determinant effect of the spouse having to approve FP and contraceptive use (Prata et al., 2017). As such, determining the concordance and discordance between wife and husband is important in FP since it has a bearing on a couples' contraceptive use (Dixit et al., 2021; Underwood et al., 2019).

The ability to discuss family planning between husband and wife is very important for the approval of contraceptive use (Omwago & Khasakhala, 2006). Spousal communication helps overcome misunderstandings and enables couples to realize their fertility desires and modern contraceptive needs (Gok & NCAPD, 2010). Promoting communication between husband and wife could be the best way to increase modern contraceptive use by couples (Shakya et al., 2018). Spousal communication about FP could be increased by engaging husbands and achieving gender equitable attitudes (Mishra et al., 2014). Communication among couples on the use of contraceptive methods and on desired family size was little or non-existent in rural areas (Mosha et al., 2013).

Joint spousal communication on FP was reported by 66% of the couples while that on fertility was reported by 59% of the couples in one study done in Nigeria (Oyediran & Isiugo-Abanihe, 2002).

About the relationship between spousal communication and spousal concordance on decision-making power regarding family planning, a study in Nepal found that spouses who communicated were more likely to make concordant family planning decisions than those who did not communicate (Underwood et al., 2019). This finding is supported by other studies in Nigeria (Olawole-Isaac et al., 2018) and India (Dixit et al., 2021; Shakya et al., 2018).

2.7 Theoretical Framework

The framework for this study employed the tenets of Family Systems Theory put forward by Broderick C.B. in his 1993 book entitled: "Understanding Family Process: Basics of Family Systems Theory". This theory recognizes that behavior of an individual cannot be understood in isolation within a system, and that a system's members' interrelationships must be considered when examining behavior of the individual and group (Broderick, 1993).

Family Systems Theory believe that each couple works by regulating and maintaining relationships between individual spouses through their actions and decisions. These actions and decisions, as well as how the status of the relationships are altered by those actions, are related to both couple-level and individual attributes including the couple's relationship quality (Cox et al., 2013). In applying the Family Systems Theory Framework to this study, the assumption is that a couple's decision to discuss, agree, initiate or continue use of a

modern contraceptive method is in part influenced by their current relationship quality, as well as how that quality will be maintained or changed by their actions.

2.8 Conceptual Framework

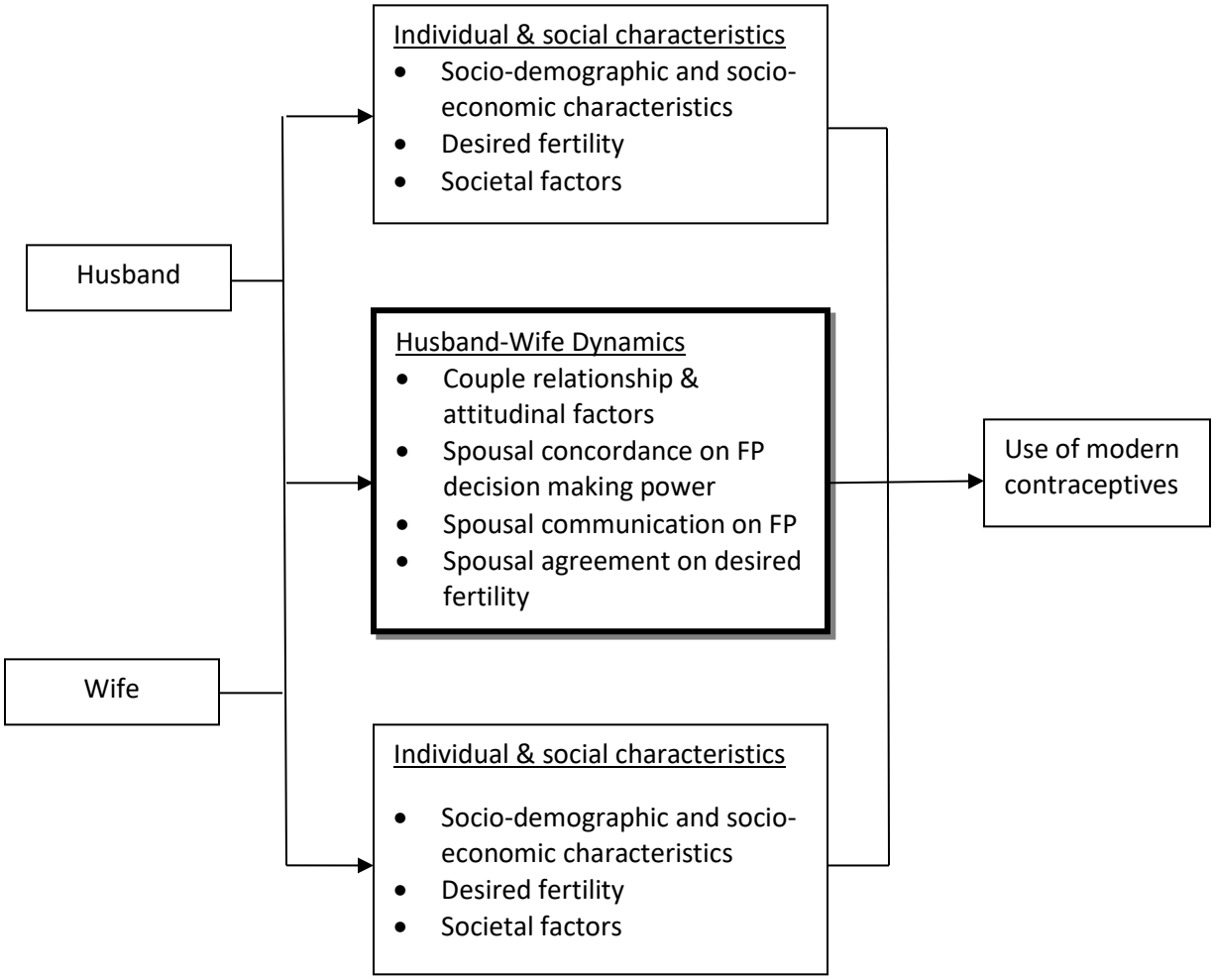


Figure 1: Diagrammatic illustration of the conceptual framework

The above diagrammatic representation of conceptual framework shows how the predictor variables and other independent variables interact to influence modern contraceptive use by couples. The predictor variables which in this study include spousal communication about family planning, spousal concordance on decision-making power regarding family planning, desired family size, desire for more children and spacing among others interact

with other independent variables namely individual and societal factors to influence family planning use by couples.

The individual factors of the independent variables include socio-demographic and socio-economic characteristics like age, level of education, employment status and family income while societal factors include cultural beliefs, gender norms and woman empowerment among others.

Other independent variables like couple relationship and attitudinal factors that also play an important role include duration of marriage, number of living children, spousal concordance on sex of the next child, preferred sex composition, desire for more children, desired family size and spacing of births. All these factors, together with knowledge of modern contraceptive methods and access to family planning services interact to determine uptake of modern contraceptive methods by couples.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study Area

The study was conducted at Webuye County Hospital- a level 4 hospital located in Webuye East sub-County within Bungoma County, western part of Kenya.

Webuye East sub-County is one of the nine sub-Counties of Bungoma County. The other eight sub-Counties are Webuye West, Bumula, Kabuchai, Kanduyi, Kimilili, Mt. Elgon, Sirisia and Tongaren. It shares borders with Webuye West to the west, Kimilili to the north and Tongaren to the east. On its southern border is Kakamega County (The Commission for the Implementation of the Constitution (CIC), 2015).

Webuye County Hospital is among five public health facilities found within Webuye East Sub-County that offer FP services; the other four health facilities are: Lurare dispensary, Sinoko dispensary, Mukhe dispensary and Webuye health center (The Commission for the Implementation of the Constitution (CIC), 2015). It has a large catchment population from both within and outside Bungoma County. Reproductive and Sexual health services including Family Planning is among the services it provides. Records at its FP clinic showed that a total of 2,090 clients- majority of them women, sought FP services in a six-month period between January to June 2019. Of the 2,090 clients, 1,885 were revisits while 205 were newcomers. This translated to an average of 348 clients per month- 314 of them as revisits while 34 as new clients. According to the records at the Child Health Clinic where this study was conducted, a total of 1,957 clients- majority of them mothers, brought

their children for immunization against measles at 9 months postpartum between January and December 2019. This translated to an average of 163 clients per month.

The region's main economic activity is crop farming and animal husbandry. Crop farming is primarily for subsistence and include maize, beans, millet and sorghum among other crops while the main cash crop in the region is sugarcane. The industries within the region-paper and sugar factories, are currently facing financial and operational difficulties. There is also a chemical processing plant within the area.

3.2 Study Design

The study design was a hospital-based cross-sectional study employing quantitative methods.

3.3 Target Population

Couples within the catchment area of Webuye County Hospital.

3.3.1 Study Population

Couples attending the Child Health Clinic at Webuye County Hospital.

However, a random survey done at the CHC showed that less than 10% of clients came with their spouse; while for the remaining 90% who came without their spouse, only 50% said they could bring their spouse for the interview if requested upon by the researcher. Some of the reasons given by those who came without their spouse and who could not bring their spouse if requested by the researcher were: the male partners belief that taking the children to the CHC for immunization is the wife's responsibility; their spouse being very busy with work; and their spouse working at faraway places especially in the cities, among other reasons. The researcher was anticipating difficulties in recruiting study

participants but despite the challenges encountered, we managed to reach the required sample size.

3.3.2 Inclusion Criteria

Those who were included in the study met the following criteria: must be a couple- either married or cohabiting for at least one year and must have at least one living child. The female partners must be between 18-49 years old, while male partners must be above 18 years old. In addition, they must have come to attend the Child Health Clinic for immunization against measles at the 9th postpartum month.

3.3.3 Exclusion Criteria

Those couples without a living child and those attending the Child Health Clinic for other immunizations other than the 9th postpartum month for vaccination against measles were excluded from this study.

3.3.4 Sample Size

The minimum sample size required for the study was determined using the single population proportion formula with the assumption of 95% confidence level, a 5% marginal error and an estimated proportion for both:

i. Spousal concordance on decision-making power regarding family planning (objective one), and
ii. Spousal communication about family planning (objective two).

This meant that two sample sizes (one for objective one; and another for objective two) were calculated. Then the largest of the two sample sizes was used for this study.

The estimated proportions for both spousal concordance on decision-making power regarding family planning (objective one), and spousal communication about family planning (objective two) were derived from previous similar studies done in west Africa- after an internet search on local studies did not yield results. In one of those studies- done in Niger, concordance on joint decision-making power regarding family planning was reported by 77.1% of the couples (Challa et al., 2018). The other study- on spousal communication about family planning, was done in Nigeria. In this study, it was found that 8.5% of the couples had communicated about family planning (Olawole-Isaac et al., 2017).

Thus, the sample size was calculated as follows based on those assumptions:

$$n = \left(Z_{\alpha/2}\right)^2 p(1-p)/w^2$$

Where n= minimum sample size; z= critical value at 95% confidence level (1.96); p= estimated proportion which for this study is 0.771 for objective one, and 0.085 for objective two; w= margin of error i.e. 0.05.

Hence the sample size for objective number one: $\frac{1.96^2 \; x \; 0.771 \; x \; 0.229}{0.05^2}$ = 271

While the sample size for objective number two: $\frac{1.96^2 \; x \; 0.085 \; x \; 0.915}{0.05^2}$ = 119

The sample size for objective one (271) was used since it was the largest of the two sample sizes.

3.3.5 Sampling Technique

A systematic sampling method was used. Since the average monthly number of clients who came to the Child Health Clinic at 9 months postpartum for the purpose of bringing their children to be immunized against measles was 163 (i.e. 1,957 clients/12 months), in five months period the estimated number of clients were 815. Taking this five-months period number of clients attending CHC as population size "N", the sampling interval "k" was N/n= 815/271= 3. Therefore, the random starting point was an integer between 1 and 3. The client number two was the random starting point after using the random number generator (*Random Number Generator*, n.d.) to determine it. The sequence was therefore 2, 5, 8, 11, 14...etc. This sequence was continued until the minimum sample size target of 271 couple study participants was attained.

The study participants who met the eligibility criteria but came without a spouse were requested to come with them at a later agreed date and place of their convenience. Those who met the eligibility criteria but could not manage to bring along their spouse or declined to participate in the study were not coerced or victimized- as the participation in the study was purely voluntary; but instead, they were accorded respect and their health needs attended to as stipulated in the Declaration of Helsinki ethical principles, before they were skipped. The husband and the wife were interviewed separately but a similar structured questionnaire was used for both of them.

3.4 Data Collection Instruments

Study participants were used for data collection. The couples attending CHC who met the eligibility criteria were the researcher's study participants. A structured interviewer-

administered questionnaire was used for data collection. The questionnaire employed was adopted from previous literature (Sharan & Valente, 2002; Uddin et al., 2017).

The questionnaire was initially prepared in English then it was translated to Kiswahili- a universally spoken national language, so that the information required from the respondents could be obtained, and then it was translated back to English to check for any inconsistencies.

3.5 Measures: Independent and Dependent Variables

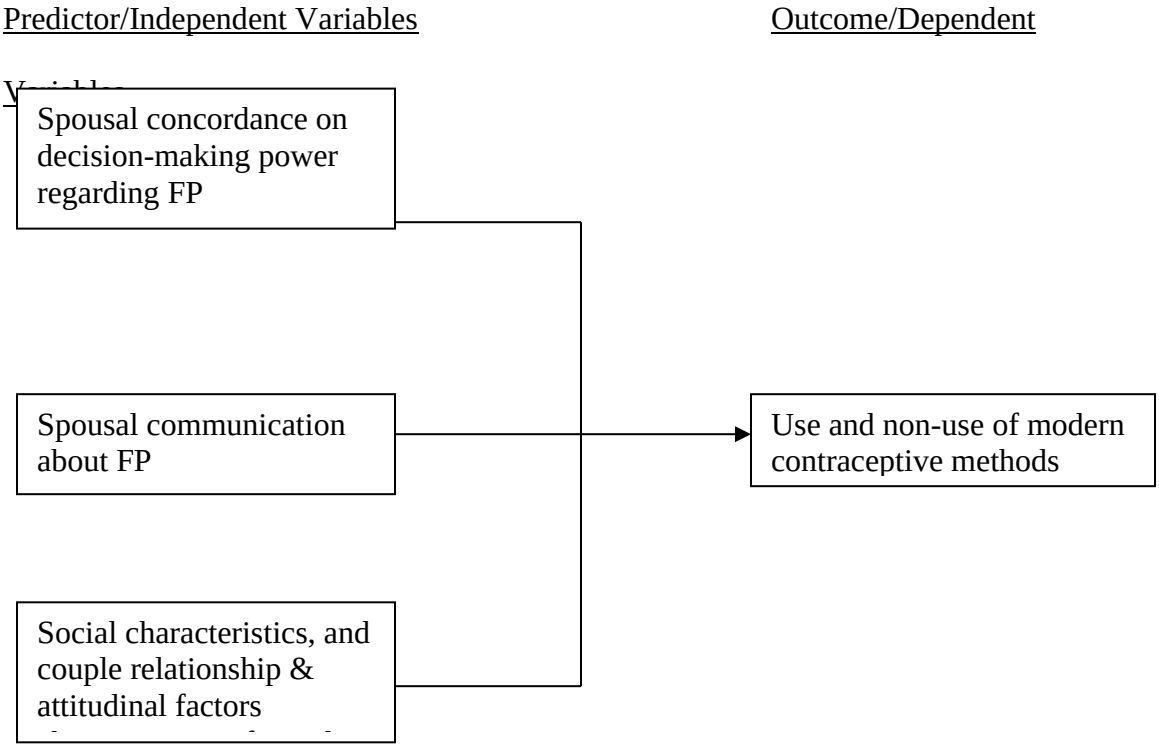


Figure 2: Diagrammatic illustration of the relationship between predictor variables and the outcome variables

The main predictor variables for this study were spousal concordance on decision-making power regarding family planning, and spousal communication about family planning; while the outcome variables were modern contraceptive use and non-use. Other

independent variables in this study were socio-demographic characteristics (age, level of education, family income, number of living children, place of residence), and couple relationship & attitudinal factors (duration of marriage, spousal concordance on desired family size, desire to have more children, spacing of births, sex of the next child, and sex composition of their ideal family size).

3.5.1 Measure for Spousal Concordance on Decision-making Power regarding Family Planning

Spousal concordance was measured using concordance rates. Concordance rates are percentages of spouses with responses that matches (either in agreement or disagreement). Hence spouses were either classified as concordant when responses from both spouses matched, or as discordant when responses from both spouses did not match. The percentages of those spouses with concordance and discordance were then determined.

Decision-making power on family planning was determined by a questionnaire item adopted from a previous similar study done in Bangladesh (Uddin et al., 2017) that ask the respondents: "who makes the family planning decisions?" For each of the questions on the decision-making power regarding family planning (e.g. who makes the decision about contraceptive use, choice of a modern contraceptive method, desired fertility, spacing etc.), there were four response alternatives namely:

1) Wife only
2) Husband only
3) Wife and husband jointly
4) Others (someone else, wife and someone else, husband and someone else).

The responses of the husband and wife were then matched to assess the level of spousal concordance and discordance, and the proportions of those couples who agreed or disagreed about decision-making power on the following four family planning matters were introduced in the multivariate regression analyses:

1) Use of a modern contraceptive method
2) Choice of a modern contraceptive method
3) Spacing of births
4) Desired family size (number of children they would like to have).

The "agree" categories were four namely: wife only, husband only, jointly, and someone else; they reflected husband-wife concordance about who decides regarding family planning matters while the 5th category (disagree) captured spousal discordance across all response categories. Hence all possible combinations of discordant responses were aggregated into "disagree" category.

For couple relationship and attitudinal factors, the proportions of only two categories were measured- whether they agreed or disagreed. For example whether the spouses agreed or disagreed on the desire to have additional children.

3.5.2 Measure for Spousal Communication about Family Planning

Spousal communication was determined using a tool adopted from a previous similar study done in Nepal (Sharan & Valente, 2002). The tool consist of the following five spousal communication regarding family planning questionnaire items:

1. Whether FP had ever been discussed by the couples
2. Whether couples had discussed FP in the past 12 months
3. Whether couples intended to discuss FP
4. whether couples believe their spouse approved of FP
5. Whether they were aware of the number of children their spouse wanted.

The above five spousal communication items were combined into an index which was calculated as follows:

- For each item, a score of 1 was given for a positive response, and a score of 0 was given for a negative response
- The scores of the five items were added together, and the sum was divided by five so that an index value was obtained, which thus ranged from 0 to 1
- An index value > 0.5 was interpreted as good spousal communication regarding FP, while an index value of < 0.5 was interpreted as poor spousal communication regarding FP
- The index's reliability coefficients (Cronbach's alpha) were within the acceptable limits 0.75.

3.6 Data Collection Procedures

The data was collected between February and September 2021 using a structured interviewer-administered questionnaire. The Pretest was done at the CHC of Bungoma County Referral Hospital (BCRH) in January 2021 on 27 (10% of the total sample) study participants. 25 out of 27 (92.6%) of the pretest participants reported joint decision-making

power regarding family planning use while 18 out of 27 (66.7%) reported good spousal communication about family planning.

BCRH was used for pretesting because it shared similar characteristics with the study area (WCH). Both BCRH and WCH are located within the same County (Bungoma) and region (western Kenya) and hence clients they serve at their CHC have similar characteristics.

The purpose of pretesting was to identify problems with the tool for data collection (questionnaire in this study) and find possible solutions. Based on the pretest, the time required for the complete interview and the number of research assistants needed was estimated and also it enabled the necessary modification to be made on the questionnaire. Research assistants were trained on interview techniques, study objectives and data collection.

The questionnaire was administered to the study participants at the CHC by the interviewer (principal investigator or research assistant) after the study participants had been seen by the Child health service provider. The study participants were selected using the systematic sampling method.

The initial recruitment of the study participants was done by the trained research assistants; who then introduced themselves, explained to the study participants what the research was about, sought their consent (both verbal and written) for participation, assured them of confidentiality and then proceeded with the interview/data collection. No one was coerced to participate in the study. Instead, those who declined to participate in the study were not victimized but were served and accorded respect according to the Declaration of Helsinki ethical principles before being skipped.

Each spouse was interviewed separately and the paired completed questionnaires tagged, labeled and serially numbered (for control and recall purposes) without using identifying personal details. For those study participants who came to CHC without their spouse and who met the eligibility criteria, they were requested to bring them for the interview on a later agreed date and place of their convenience. Each completed questionnaire was checked for completeness and kept safely in a box-file.

3.7 Validity and Reliability

Validity is the extent to which a test or an instrument accurately measures what it is intended or designed to measure. Validity can be internal or external. External validity refers to the accuracy with which the measures obtained from the study sample describes the general or reference population from which the study sample was drawn. Internal validity refers to the accuracy with which the measure obtained from the study is actually quantifying what it was intended or designed to measure.

Reliability refers to the extent with which a research instrument or a measure consistently has the same results if it is used in the same situation on repeated occasions. (I.e. reliability is about consistency of a measure). There are two types: internal and external reliability. Internal reliability is a measure of how well a test is actually measuring what it is intended to measure; while external reliability means that a measure or test can be generalized beyond what it is being used for.

External validity is difficult to achieve but this study tried to achieve it by using a systematic sampling method to get study participants. It also ensured external validity by using an estimated proportion of spousal concordance on decision-making power regarding FP from a similar study done in West Africa to calculate the sample size. Hence the study sample was assumed to be representative of the general population as West Africa is part of the sub-Saharan Africa. Internal validity was ensured by subjecting the study questionnaire to a panel of experts comprising of lecturers and registrars of the department so that they explore the theoretical construct of the operational measure of the study questionnaire. Validity was also ensured using a standardized questionnaire considered highly reliable and valid; and which had been used in another similar study (Sharan & Valente, 2002).

Reliability (internal consistency) was ensured by using a measurement tool from a similar previous study (Sharan & Valente, 2002); that had been tested and validated with reliability coefficients (Cronbach's alpha) of 0.75 which is within the acceptable limits. Reliability was also ensured by carrying out pilot testing of the questionnaire. This was conducted on 10% of the total sample not included in the study sample. Pilot testing was carried out at another separate facility (BCRH) which had similar characteristics with the study area (WCH).

Stability/consistency was assessed through a test-retest procedure that involved having the same respondents complete a survey at two different points in time to see how stable or consistent the responses were. A test-retest correlation coefficient (r) value of >0.70 was considered to indicate good reliability.

3.8 Data Management and Analysis

3.8.1 Data Management

Daily checking of questionnaires for completeness and accuracy was done. The data was then entered into a computer and stored in a database. This continued until data collection was completed; after which the data was transferred to the Statistical Package for Social Sciences (SPSS) version 23 software computer program for cleaning and analysis.

3.8.2 Data Analysis

Descriptive statistics (frequencies and proportions/percentages) was used to summarize data from the categorical variables including background characteristics of the respondents.

For the predictor variable of spousal concordance on decision-making power regarding FP, the proportions of couples in agreement (concordance rates) were determined.

Matching of the husband’s and wife’s responses to each of the questions about decision-making regarding FP to show the level of concordance and discordance was done as illustrated in the table 1 below:

Table 1: Illustrating how spousal concordance was determined by matching husband's and wife's responses to specific questions about family planning

What the wife says	**What the husband says**				**Total**
	Jointly	Husband alone	Wife alone	Other(s)	
Jointly	A1				
Husband alone		A2			
Wife alone			A3		
Other(s)				A4	
Total					

Percent of spouses who agree = A1+A2+A3+A4

Assuming the spouses were asked the question: "Who in the family has the final say concerning modern contraceptive use?" Using entry A1 in the table 1 above as an example: when the husband responds that the decision is made jointly; and the wife's response matches with the husband's response (i.e. that they make the decision jointly), it was determined that there is spousal concordance. Similarly, A2, A3 and A4 indicates spousal concordance.

Pearson's Chi-square statistic for bivariate analyses model was used to test for association between predictor variables and outcome variables. Those variables that were found to be

statistically significant (p-value < 0.05) on bivariate analyses were entered in the multiple logistic regression model.

Multiple logistic regression models were used to test for association between predictor variables and outcome variables once other independent variables (e.g. socio-demographic and socio-economic characteristics) had been controlled for. P-value <0.05 was considered as the level of significance α.

For couple relationship and attitudinal factors, "agree" and "disagree" proportions were tested for association with modern contraceptive use. For objective one- about spousal concordance on decision-making power regarding family planning, the proportions of those who agreed or disagreed about decision-making on each of the four family planning domains- use of a contraceptive method, choice of a modern contraceptive method, spacing of births, and desired family size were tested for association with modern contraceptive use while controlling for other independent variables like socio-demographic characteristics.

Regarding objective two, proportion of those couples who reported good or poor spousal communication were tested for association with modern contraceptive use while controlling for socio-demographic characteristics. While for objective three, proportions of those with either good or poor communication were tested for association with those who agreed or disagreed about decision-making power regarding each of the four family planning domains that were studied namely: use of a contraceptive method, choice of a modern contraceptive method, spacing of births, and desired family size.

3.9 Study Limitations

The study had various limitations. Due to the cross-sectional study design used, it was difficult to prove causality (cause-effect relationship) between the predictor variables and the outcome variables since the study was conducted at one point in time. Concerning spousal agreement & concordance, it was difficult to ascertain whether the spousal agreement was attributed to coincidentally similar preferences, or to mutually recognized agreement that was based on explicit discussion and consensus. There was also the risk of endogeneity- that is when unobserved variation produces observed associations. Another limitation was social desirability bias. Since some of the family planning matters studied were personal and sensitive, some respondents were unwilling or felt uncomfortable to give all the information. However, this was minimized by interviewing each spouse separately and assuring them of confidentiality of the information they gave. It is assumed therefore that all the information given was true and honest.

Another limitation was that the data collected might have been subject to recall bias. For instance, some of the questions in the tool used to measure spousal communication are prone to recall bias. Additionally, the study was about married couples only therefore missing out information that would have been obtained from unmarried couples. Moreover, possible confounders like gender norms, socio-cultural factors, beliefs & misconceptions, accessibility to family planning services, availability of contraceptive methods of their choice among others that could have had a bearing on the predictor and outcome variables were not considered in this study. In addition, the study was limited to women who had brought their child/children for the measles vaccine when nine months postpartum meaning all the other women who had come to the Child Health Clinic at various stages (6^{th}, 10^{th},

14th week, 6th month postpartum etc.) were excluded. This makes it difficult to generalize the findings of the study.

Furthermore, the fact that the study was conducted in a hospital institution means that the study findings are not generalizable to the general population.

3.10 Ethical Considerations

Ethical approval was sought and obtained from Moi University's Institutional Research & Ethics Committee (**FAN: 0003560**) before the research was conducted. Permission was sought and granted by the relevant authorities of Webuye County Hospital (Medical Superintendent and the in-charge of Child Health Clinic).

Individual informed consent from the study participants was sought prior to participation in the study. Study participants were not identified by their name in the questionnaire to avoid giving away their identity. They were also informed to skip any question or refuse to participate totally if they were not comfortable.

All participants were told about the purpose of the study. There were no compensation that was rendered to the respondents as a direct incentive to their participation. All the information obtained was confidential and privacy of the participants was ensured.

3.11 Data Confidentiality

Participants' identifying information or details were not included in the questionnaire. The completed questionnaire was only accessed by the principal investigator. After the interview, the consent form containing the participants' details was separated from the questionnaire. Electronic data was protected by passwords. The electronic data will be permanently deleted while the paper data disposed off by shredding after the elapse of an appropriate time.

CHAPTER FOUR

4.1 RESULTS

As far as the study participants are concerned, 19 potential study recruits declined outrightly to participate in the study while 43 women accepted to participate in the study but they never came back with their spouse for the interview. Only 21 out of the 272 participants came to the CHC with their partner (i.e. the husband accompanying his wife). Among this group of 21 (whom the wife came to the clinic accompanied by her husband), no one declined to participate in the study. Out of 294 who accepted to come back after the clinic, only 251 came back with their spouse for the interview. In summary, out of the 272 participants, 21 came to the clinic with their partner while the remaining 251 had to come back for the interview with their spouse.

The final total of 272 couples who participated in the study were included in the analysis. Table 2 shows the socio-demographic characteristics of the participants. The mean age of the wives was 27 years (SD=5.8) with a range of 18 to 46 while that of the husbands was 32.8 years (SD=7.1) with a range of between 19 and 55.

In terms of the level of education, more than half had secondary and higher levels of education for both husbands and wives. The estimated monthly income in most of the families- 188 (69%) was less than Kshs.20,000 with only 5 (1.8%) of the couples reporting an estimated monthly income of more than Kshs.100,000. Slightly more than half of the participants- 137 (50.4%) resided in rural areas.

The mean duration in marriage was 5.4 years (SD=4.9) with a range of between 1 and 23 years. The results also show that the mean number of children among the couples was 2 (SD=1.3) with a range of between 1 and 7 children.

Table 2: Socio-demographic characteristics of the participants

Variable	Mean (SD)/Freq (%)
Age of husband (years)	
Mean (SD)	32.85 (7.10)
Range	19.00 - 55.00
Husband level of education	
None	28 (10.3%)
Primary	75 (27.6%)
Secondary	79 (29.0%)
Post-secondary	90 (33.1%)
Age of wife (years)	
Mean (SD)	26.96 (5.79)
Range	18.00 - 46.00
Wife level of education	
None	16 (5.9%)
Primary	89 (32.7%)
Secondary	89 (32.7%)
Post-secondary	78 (28.7%)
Estimated monthly family income (Kshs)	
Less than 20,000/=	188 (69.1%)
Between 20,000- 100,000/=	79 (29.0%)
More than 100,000/=	5 (1.8%)
Residence	
Urban	135 (49.6%)
Rural	137 (50.4%)
Duration of marriage (years)	
Mean (SD)	5.37 (4.86)
Range	1.00 - 23.00
Number of living children	
Mean (SD)	2.074 (1.263)
Range	1.000 - 7.000

4.1 Couple Relationship and Attitudinal Factors

Table 3a shows the couple relationship and attitudinal factors affecting family planning. The study results show that majority of the couples- 220 (80.9%) agreed on the desire for more children and among these, 174 (79%) agreed they desired to have more children while the remaining 46 (21%) agreed that they did not desire more children. Among the ones who disagreed, those whom the husband desired more children but wife did not were 35 (67.3%); while for the remaining 17 (32.7%), the wife desired to have more children but the husband did not. Among the 174 who desired more children, 92 (52.9%) agreed on the preferred sex of their next child while 82 (47.1%) disagreed.

In terms of the desired family size, 137 (50.4%) agreed on their desired family size; and of the 135 (49.6%) who disagreed, 84 (62.2%) comprised those couples whose husband desired to have a bigger family size than the wife while for the remaining 51 (37.8%) the wife desired a bigger family size than the husband. Less than half of the couples- 120 (44.1%) agreed on the preferred sex composition of their ideal family size. Among this group, the majority- 53 (44.2%) indicated they wanted equal number of boys to girls while only 6 (5%) indicated they preferred children to be of one sex (either boys only- 2.5% or girls only- 2.5%).

More than half of the couples- 161 (59.2%) agreed on the spacing of births. Among the 111 (40.8%) who disagreed, the husband wanted spacing of a longer duration than the wife in 44 (39.6%); while for the remaining 67 (60.4%), the wife wanted spacing of a longer duration than the husband.

Table 3a: Level of spousal concordance on couple relationship and attitudinal factors

Variable	Mean (SD)/Freq (%)
Desire for more children	
Couples whom spouses Agree	220 (80.9%)
Couples whom spouses Disagree	52 (19.1%)
Couples whom spouses agree on the desire for more children	N=220
Both husband and wife desire to have more children	174 (79.1%)
Both husband and wife do not desire to have more children	46 (20.9%)
Couples whom spouses disagree on the desire for more children	N=52
Husband desired more children but wife did not	35 (67.3%)
Wife desired more children but husband did not	17 (32.7%)
Sex of the next child	N=174
Couples whom spouses Agree on what sex they would like for their next child	92 (52.9%)
Couples whom spouses Disagree on what sex they would like for their next child	82 (47.1%)
Desired family size	
Couples whom spouses Agree	137 (50.4%)
Couples whom spouses Disagree	135 (49.6%)
Couples whom spouses Disagree on the desired family size	N=135
Husband desired a bigger family than wife	84 (62.2%)
Wife desired a bigger family than the husband	51 (37.8%)
Sex composition of their ideal family size	
Couples whom spouses Agree on the sex composition	120 (44.1%)
Couples whom spouses Disagree on the sex composition	152 (55.9%)
Couples whom spouses Agree on the sex composition of their ideal family size	N=120
Couples whom spouses Agree that they would like: boys = girls	53 (44.2%)
Couples whom spouses Agree that they would like: boys > girls	31 (25.8%)
Couples whom spouses Agree that they would like: girls > boys	30 (25.0%)
Couples whom spouses Agree that they would like: boys only	3 (2.5%)
Couples whom spouses Agree that they would like: girls only	3 (2.5%)
Spacing of births	
Couples whom spouses Agree	161 (59.2%)
Couples whom spouses Disagree	111 (40.8%)

Variable	Mean (SD)/Freq (%)
Couples whom spouses Disagree on the spacing of births	N=111
Husband wanted spacing of a longer duration than wife	44 (39.6%)
Wife wanted spacing of a longer duration than husband	67 (60.4%)

Further analysis to assess whether spousal concordance or discordance on these factors had any bearing on modern contraceptive use revealed that two factors were statistically significant: spousal discordance on desire for more children, and spacing of births. The odds of using a modern contraceptive method when the husband did not want additional children was 2.7 (95% CI: 1.59- 4.61; p-value < 0.001) as shown in the table 3b below.

Table 3b: Association between spousal discordance on desire to have additional children and modern contraceptive use

	Use of a modern contraceptive method		**Chi-square**		
Variable	**Yes (N=25)**	**No (N=27)**	**P-value**	**Adjusted* Odds ratio**	**95% CI**
Couples whom spouses disagree on the desire to have more children	**Freq (Row%)**	**Freq (Row%)**			
			<0.001		
Wife did not want to have additional children	14 (40%)	21 (60%)		1	

Husband did not want to have additional children	11 (64.7%)	6 (35.3%)		2.7	1.59, 4.61

Adjusting for the variable in the table as well as socio-demographic characteristics: Age of both wife and husband, Education level of both wife and husband, Income and residence.

While the odds of using a modern contraceptive method when the husband wanted spacing of longer duration than the wife was 1.9 (95% CI: 1.12- 3.21; p-value < 0.001) as shown in the table 3c below.

Table 3c: Association between spousal discordance on spacing of births and modern contraceptive use

	Use of a modern contraceptive method		**Chi-square**		
Variable	**Yes (N=52)**	**No (N=59)**	**P-value**	**Adjusted* Odds ratio**	**95% CI**
Couples whom spouses disagree on the spacing of births	**Freq (Row%)**	**Freq (Row%)**			
			<0.001		

Wife wanted spacing of longer duration than the husband	27 (40.3%)	40 (59.7%)	1	
Husband wanted spacing of longer duration than wife	25 (56.8%)	19 (43.2%)	1.9	1.12, 3.21

Adjusting for the variable in the table as well as socio-demographic characteristics: Age of both wife and husband, Education level of both wife and husband, Income and residence.

4.2 Objective One:

To Determine the Level of Concordance between the Husband and Wife on Decision-making Power regarding Family Planning matters; and its Association with modern Contraceptive Use

Table 4 shows the concordance between husband and wife on decision-making power regarding family planning matters. The study findings show that out of the 272 couples who participated in the study, 173 (63.6%: 95% CI: 57.6, 69.3) had concordance on use of a modern contraceptive method with 143 (52.6%; 95% CI: 46.4, 58.6) having concordance on choice of a modern contraceptive method. In addition, out of the 272 couples, 164 (60.3%; 95% CI: 54.2, 66.2) had concordance on spacing of children while 138 (50.7%; 95% CI: 44.6, 56.8) had concordance on desired family size.

The findings also revealed that more than 90% of the couples with concordance made the decision regarding three family planning matters: modern contraceptives use (94.2%; n=163), spacing of births (95.7%; n=157), and desired family size (97.1%; n=134) jointly

as husband and wife; while 66.4% (n=95) of those who had concordance made the decision regarding choice of a modern contraceptive method jointly.

Moreover, the study results show that decision-making by the wife only was higher when it came to choice of a modern contraceptive method as compared to other family planning matters (32.9% concordance vs. 5.2% for modern contraceptive use; 4.3% for spacing of children; 2.2% for desired family size).

Table 4: Spousal concordance on decision-making power regarding family planning matters

Variable	**Freq (%)**
Decision-making power on the use of a modern contraceptive method	
Couples whom spouses Agree	173 (63.6%)
Couples whom spouses Disagree	99 (36.4%)
Couples whom spouses Agree on the decision-making power regarding use of a modern contraceptive method	N=173
Couples whom spouses Agree that the decision is made by the wife only	9 (5.2%)
Couples whom spouses Agree that the decision is made by the husband only	1 (0.6%)
Couples whom spouses Agree that the decision is made jointly as husband	163 (94.2%)
and wife	-
Couples whom spouses Agree that the decision is made by someone else	
Decision-making power on the choice of a modern contraceptive method	
Couples whom spouses Agree	143 (52.6%)
Couples whom spouses Disagree	129 (47.4%)

Variable	Freq (%)
Couples whom spouses Agree on the decision-making power regarding choice of a modern contraceptive method	N=143
Couples whom spouses Agree that the decision is made by the wife only	47 (32.9%)
Couples whom spouses Agree that the decision is made by the husband only	-
Couples whom spouses Agree that the decision is made jointly as husband and wife	95 (66.4%)
Couples whom spouses Agree that the decision is made by someone else	1 (0.7%)
Decision-making power on the spacing of births	
Couples whom spouses Agree	164 (60.3%)
Couples whom spouses Disagree	108 (39.7%)
Couples whom spouses Agree on the decision-making power regarding spacing of births	N=164
Couples whom spouses Agree that the decision is made by the wife only	7 (4.3%)
Couples whom spouses Agree that the decision is made by the husband only	-
Couples whom spouses Agree that the decision is made jointly as husband and wife	157 (95.7%)
Couples whom spouses Agree that the decision is made by someone else	-
Decision-making power on the desired family size	
Couples whom spouses Agree	138 (50.7%)
Couples whom spouses Disagree	134 (49.3%)
Couples whom spouses Agree on the decision-making power regarding desired family size	N=138

Variable	Freq (%)
Couples whom spouses Agree that the decision is made by the wife only	3 (2.2%)
Couples whom spouses Agree that the decision is made by the husband only	1 (0.7%)
Couples whom spouses Agree that the decision is made jointly as husband	134 (97.1%)
and wife	-
Couples whom spouses Agree that the decision is made by someone else	

The study assessed whether concordance on decision-making power regarding family planning was associated with modern contraceptive use. The study findings revealed that when adjusting for other variables, the concordance on decision-making power regarding modern contraceptive use, choice of a modern contraceptive method, and desired family size were significantly associated with modern contraceptive use. For those with concordance on decision-making power regarding use of a modern contraceptive method, their odds of using a method was 2.2 times that of those with discordance.

Among those with concordance on decision-making power regarding choice of a modern contraceptive method, their odds of using a modern contraceptive method was 3.55 times that of those with discordance; adjusting for confounders. While for those with concordance on decision-making power regarding desired family size, their odds of using a modern contraceptive method was 3.66 times those with discordance; adjusting for confounders. Concordance on decision-making power regarding spacing of births had the lowest odds (1.37) of using a modern contraceptive method (Table 5).

Table 5: Association between spousal concordance on decision-making power regarding family planning matters, and modern contraceptive use

Variable	Use of a modern contraceptive method		Chi-square p value	Unadjusted Odds Ratio	95% CI	Adjusted* Odds Ratio	95% CI
	Yes(N=181) Freq (Row %)	No (N=91) Freq (Row %)					
Decision making power on use of a modern contraceptive method			< 0.001				
Disagree	47 (47.5%)	52 (52.5%)		1		1	
Agree	134 (77.5%)	39 (22.5%)		3.80	2.24, 6.51	2.20	1.29, 4.56
Decision making power on choice of a modern contraceptive method			< 0.001				
Disagree	65 (50.4%)	64 (49.6%)		1		1	
Agree	116 (81.1%)	27 (18.9%)		4.23	2.48, 7.37	3.55	1.93, 6.67
Decision making power on spacing of births			< 0.001				
Disagree	56 (51.9%)	52 (48.1%)		1		1	
Agree	125 (76.2%)	39 (23.8%)		2.98	1.77, 5.04	1.37	0.71, 2.59
Decision making power on desired family size			< 0.001				
Disagree	66 (49.3%)	68 (50.7%)		1		1	
Agree	115(83.3%)	23 (16.7%)		5.15	2.98, 9.18	3.66	1.90, 7.25

Adjusting for the variable in the table as well as socio-demographic characteristics: Age of both wife and husband, Education level of both wife and husband, Income and residence.

4.3 Objective Two:

To Determine the Level of Communication between the Husband and Wife about Family Planning; and its Association with modern Contraceptive Use

A total of 174 (64%; 95% CI: 57.9, 69.7) of the couples reported good spousal communication about family planning with the remaining 98 (36%) having poor communication.

A total of 181 (66.5%; 95% CI: 60.6, 72.1) of the couples reported use of a modern contraceptive method with the remaining 91 (33.5%) not using a modern contraceptive method. Adjusting for potential confounders, the odds of using a modern contraceptive method among those with good communication was 12.6 times that of those with poor communication (Table 6).

Table 6: Association between spousal communication about family planning, and modern contraceptive use

Variable	Use of a modern contraceptive method		Chi-square	Unadjusted Odds Ratio	95% CI	Adjusted* Odds Ratio	95% CI
	Yes (N=181) Freq (Row %)	No (N=91) Freq (Row %)					
Spousal communication			< 0.001				
Poor	33 (33.7%)	65 (66.3%)		1		1	
Good	148 (85.1%)	26 (14.9%)		11.2	6.29, 20.6	12.6	6.81,24.4

Adjusting for the variable in the table as well as socio-demographic characteristics: Age of both wife and husband, Education level of both wife and husband, Income and residence.

4.4 Objective Three:

To Determine the Association between Spousal Communication about Family Planning, and Spousal Concordance on Decision-making Power regarding Family Planning

There was a statistically significant association between spousal communication about family planning, and spousal concordance on decision-making power regarding family planning in the four domains: modern contraceptive use, contraceptive choice, spacing of children and ideal family size (p-value <0.05) as shown in Table 7a-7d. Both bivariate and multiple logistic regression models were fitted. The study findings show that when adjusting for all the variables in the model, the odds of couples who had good communication having an agreement on decision to use a modern contraceptive method was 8.18 times that of those with poor communication. Holding all other factors constant, the odds of those with good communication having agreement on choice of a modern contraceptive method was 5.32 times that of those with poor communication. Similar findings were observed among those couples with good communication having 7.37 times the odds of having agreement on spacing of children compared to those with poor communication. Also holding all other factors constant, the odds of those couples with good communication having agreement on ideal family size was 7.68 times that of those with poor communication (Table 7a- 7d).

Table 7a: Association between spousal communication about family planning, and spousal concordance on decision-making power regarding use of a modern contraceptive method

Variable	Decision making power on use of a modern contraceptive method		Chi-square	Unadjusted Odds Ratio	95% CI	Adjusted* Odds Ratio	95% CI
	Disagree (N=99) Freq (Row %)	Agree (N=173) Freq (Row %)					
Spousal communication			< 0.001				
Poor	65 (66.3 %)	33 (33.7%)		1		1	
Good	34 (19.5%)	140 (80.5%)		8.11	4.67, 14.4	8.18	4.58, 15.1

Adjusting for the variable in the table as well as socio-demographic characteristics: Age of both wife and husband, Education level of both wife and husband, Income and residence.

Table 7b: Association between spousal communication about family planning, and spousal concordance on decision-making power regarding choice of a modern contraceptive method

Variable	Decision making power on choice of a modern contraceptive method		Chi-square	Unadjusted Odds Ratio	95% CI	Adjusted* Odds Ratio	95% CI
	Disagree (N=129) Freq (Row %)	Agree (N=143) Freq (Row %)					
Spousal communication			<0.001				
Poor	70 (71.4%)	28 (28.6%)		1		1	
Good	59 (33.9%)	115(66.1%)		4.87	2.87, 8.46	5.32	3.04, 9.57

Adjusting for the variable in the table as well as socio-demographic characteristics: Age of both wife and husband, Education level of both wife and husband, Income and residence.

Table 7c: Association between spousal communication about family planning, and spousal concordance on decision-making power regarding spacing of births

Variable	Decision making power on spacing of births		Chi-square	Unadjusted Odds Ratio	95% CI	Adjusted* Odds Ratio	95% CI
	Disagree (N=108) Freq (Row %)	Agree (N=164) Freq (Row %)					
Spousal communication			< 0.001				
Poor	67 (68.4%)	31 (31.6%)		1		1	
Good	41 (23.6%)	133(76.4%)		7.01	4.08, 12.3	7.37	4.18,13.4

Adjusting for the variable in the table as well as socio-demographic characteristics: Age of both wife and husband, Education level of both wife and husband, Income and residence.

Table 7d: Association between spousal communication about family planning, and spousal concordance on decision-making power regarding the desired family size

Variable	Decision making power on desired family size		Chi-square	Unadjusted Odds Ratio	95% CI	Adjusted* Odds Ratio	95% CI
	Disagree (N=134) Freq (Row %)	Agree (N=138) Freq (Row %)					
Spousal communication			< 0.001				
Poor	78 (79.6%)	20 (20.4%)		1		1	
Good	56 (32.2%)	118 (67.8%)		8.22	4.65, 15.1	7.68	4.25, 14.4

Adjusting for the variable in the table as well as socio-demographic characteristics: Age of both wife and husband, Education level of both wife and husband, Income and residence.

CHAPTER FIVE

5.0 DISCUSSION

Introduction

This study explored the extent to which the spouses communicate and agree or disagree on decisions regarding family planning matters, and how these marital dynamics affect the couples' use of modern contraceptive methods.

The study findings show that these couple dynamic factors are interrelated and interlinked in terms of each having a bearing on the other as they play a significant role in predicting modern contraceptive use. For example, while the results show that spousal communication about family planning positively predicts modern contraceptive use, they also reveal that spousal communication is positively associated with spousal concordance on decision-making power regarding family planning- which also, as the study findings indicate, predicts use of modern contraceptive methods.

5.1 Couple Relationship and Attitudinal Factors

In this study, these factors include: the desire for additional children, spacing of children, sex preference of the next child, ideal or desired family size, and sex composition of their ideal family size. Since this study involved marital dyads, these factors were analyzed based on whether there was spousal concordance or discordance about them.

It was found that spousal concordance was higher than discordance for all of these factors except for one: sex composition of their ideal family size; where discordance was more than concordance- 152 (55.9%) vs. 120 (44.1%).

It was also found that more couples tend to agree when it comes to the desire to have additional children- 220 (80.9%) than about the number of children they would like to have- 137 (50.4%). The reverse is true for discordance as summarized in the table 8a. These findings are consistent with results from other studies for the two factors: spacing of births- 59.2% (current study) vs. 54.4% (Tilahun et al., 2014); and preferred sex of the next child- 52.9% (current study) vs. 52.2% (Tilahun et al., 2014). However, it varies slightly for the desire for more children- 80.9% (current study) vs. 72.2% (Tilahun et al., 2014), and greatly for the desired number of children- 50.4% (current study) vs. 71.6% (Diro & Afework, 2013) as shown in the table 8b. The larger difference in the findings between these studies for the two factors could be explained by the cultural differences between the respondents of these studies.

Table 8a: Spousal concordance and discordance on couple relationship and attitudinal factors

Couple relationship and attitudinal factors	**Couples with concordance**	**Couples with discordance**
Desire for additional children	220 (80.9%)	52 (19.1%)
Spacing of births	161 (59.2%)	111 (40.8%)
Sex of the next child	92 (52.9%)	82 (47.1%)
Desired family size	137 (50.4%)	135 (49.6%)
Sex composition of their desired family size	120 (44.1%)	152 (55.9%)

Table 8b: Comparison between the current study and other studies regarding spousal concordance on couple relationship and attitudinal factors

	Couples with concordance	**Couples with discordance**
Desire for additional children	80.9% vs. 72.2% (1a)*	19.1% vs. 27.8% (1a)*
Spacing of births	59.2% vs. 54.4% (1a)*	40.8% vs. 45.6 (1a)*
Sex of the next child	52.9% vs. 52.2% (1a)*	47.1% vs. 47.8 (1a)*
Desired family size	50.4% vs. 71.6% (1b)*	49.6% vs. 28.4% (1b)*

Key: 1a= (Tilahun, 2014); 1b= (Diro & Afework, 2013).

Further analysis of these factors found that those couples whom the husband did not want additional children were 2.7 times more likely to use a modern contraceptive method than those whom the wife did not (table 3b)- a finding that is supported by other studies conducted in Ethiopia (Diro & Afework, 2013; Tilahun et al., 2014). However, another study conducted in KwaZulu-Natal, South Africa found no significant association between the husband's desire for more children and modern contraceptive use (Maharaj & Cleland, 2005). In fact, in this study which involved 238 couples, it was the wife's desire for additional children that was found to be a key determinant of modern contraceptive use (Maharaj & Cleland, 2005).

The difference between the findings of these two studies could be explained by the cultural differences of the study population of the two studies as differences in gender norms, beliefs, myths and misconceptions regarding family planning could have played a role in the final outcome.

The current study also found that the use of a modern contraceptive method was 1.9 times more likely when the husband wanted spacing of a longer duration than the wife (table 3c). This is a new finding as the internet search on Google Scholar, PubMed and Medline did not find any other study or studies on this finding. These two findings are evidence that men are more influential in family planning.

5.2 Spousal Concordance on Decision-making Power regarding Family Planning

The study findings revealed that majority of the couples made the decision regarding family planning matters jointly. The results also show a strong association between spousal concordance on decision-making power regarding family planning, and modern contraceptive use. This association was statistically significant (table 4).

Although this is not a new finding, as other studies (Challa et al., 2018; Tilahun et al., 2014; Underwood et al., 2019) have also found this association, the fact that this study found positive associations across all the four domains of family planning studied- modern contraceptive use, choice of a contraceptive method, spacing of births, and desired family size makes the linkage even stronger.

Spousal concordance was higher when it came to making decision regarding use of a modern contraceptive method (63.6% of the couples) than when it came to making decision regarding the number of children a couple would like to have (50.7% of the couples). The reverse was true for discordance as shown in the table 9a and illustrated on figure 3a.

Table 9a: Spousal concordance and discordance on decision-making power regarding family planning matters

	Agree	**Disagree**
Use of a modern contraceptive method	173 (63.6%)	99 (36.4%)
Choice of a modern contraceptive method	143 (52.6%)	129 (47.4%)
Spacing of births	164 (60.3%)	108 (39.7%)
Desired family size	138 (50.7%)	134 (49.3%)

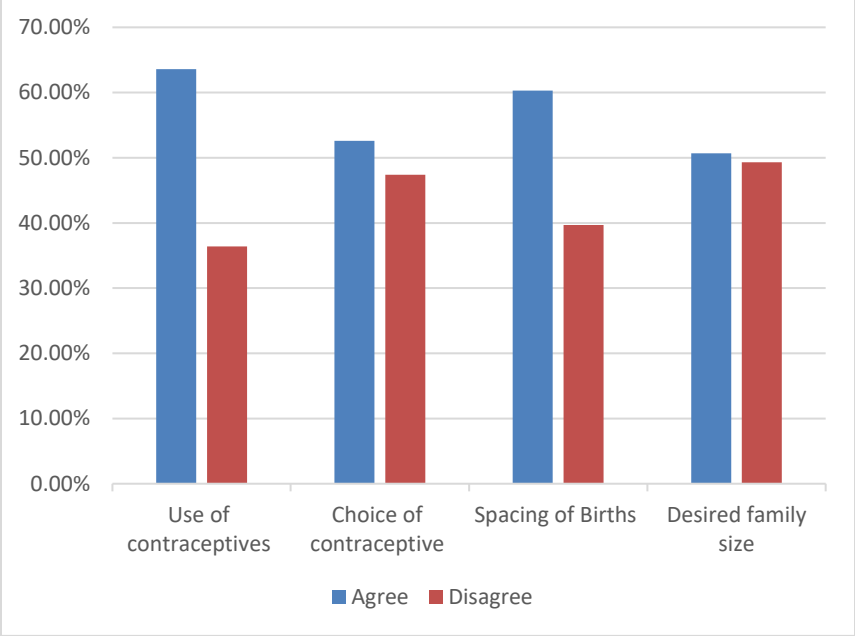


Figure 3a: Showing the level of spousal concordance on decision-making regarding family planning matters

It is worth noting that in 32.9% of the couples with concordance, the decision regarding choice of a modern contraceptive method was made by the wife only as compared to those couples with concordance whose the wife only made the decision regarding modern contraceptive use (5.2%), spacing of children (4.3%) and desired family size (2.2%); as shown in the table 9b and illustrated on figure 3b. This finding suggests that women have much power when it comes to making the decision regarding choice of a modern contraceptive method than on other family planning matters (modern contraceptive use, spacing of children and desired family size).

Table 9b: Spousal concordance on decision-making power regarding family planning matters

	Jointly	**Wife only**	**Husband only**	**Someone else**
Use of a modern contraceptive method	163 (94.2%)	9 (5.2%)	1 (0.6%)	-
Choice of a modern contraceptive method	95 (66.4%)	47 (32.9%)	-	1 (0.7%)
Spacing of births	157 (95.7%)	7 (4.3%)	-	-
Desired family size	134 (97.1%)	3 (2.2%)	1 (0.7%)	-

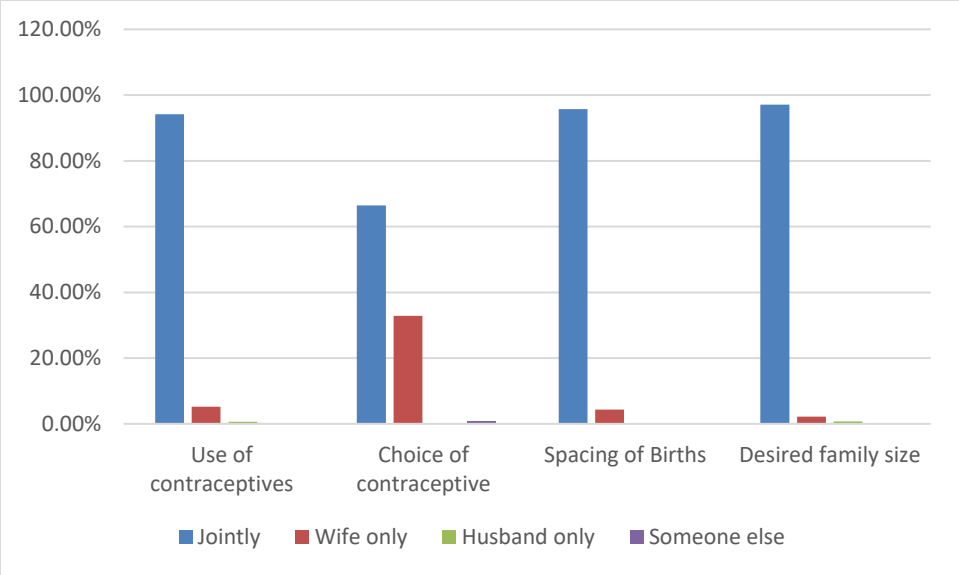


Figure 3b: Showing who makes the decision regarding family planning matters

These findings are supported by the results from other studies conducted in sub-Saharan Africa and Asia (Adagala, 2014; Challa et al., 2018; Underwood et al., 2019). For instance, in Nepal, (Underwood et al., 2019) found that 90.8% of the couples made the decision regarding use of a modern contraceptive method jointly as compared to 94.2% of the couples with concordance in the current study. Comparison with other studies conducted in Kenya and Niger is shown in the table 10. The relatively bigger difference between the findings of the two studies: 66.4% (current study) vs. 12% (Adagala, 2014)- regarding the decision-making on choice of a modern contraceptive method (as shown in the table 10) could be explained by different methodologies used. For example (Adagala, 2014) used responses from male partners only as opposed to the current study which used matched responses from both spouses. Moreover, (Adagala, 2014) did a community-based study while the current study conducted a hospital-based one.

Table 10: Comparing the findings of spousal concordance on decision-making power regarding family planning matters between the current study and other studies

	Jointly	**Wife only**	**Husband only**	**Someone else**
Use of a contraceptive method	94.2% vs. 97.1% (1c)*	5.2% vs. 1.2% (1c)*	0.6% vs. 1.7% (1c)*	-
Choice of a contraceptive method	66.4% vs. 12% (1d)*	32.9% vs. 43.3% (1d)*	0% vs. 7.3% (1d)*	0.7% vs. 37.3% (1d)*
Desired family size	97.1 % vs. 95.3% (1c)*	2.2% vs. 2.1% (1c)*	0.7% vs. 2.6% (1c)*	-

Key: 1c= (Challa et al., 2018); 1d (Adagala, 2014).

It is interesting to notice that contrary to the finding of increased odds of modern contraceptive use whenever the husband did not want to have additional children (OR: 2.7; 95% CI: 1.59- 4.61; p-value <0.001) and whenever the husband wanted to space children longer than wife (OR: 1.9; 95% CI: 1.12- 3.21; p-value <0.001), the analysis of concordance on decision-making power regarding family planning revealed that family planning decisions made by the husband only was reported by the lowest number of couples (0.6% and 0.7% for modern contraceptive use and desired family size respectively; and none for choice of a modern contraceptive method and spacing of births). Instead, majority of the couples with concordance reported that they made the decision regarding family planning jointly (more than 90% [modern contraceptive use, spacing of children,

desired family size] and 66.4% [choice of a contraceptive method]); as shown in the table 9b and illustrated on figure 3b.

There are two possible explanations for this discrepancy. First it could be due to social desirability whereby the respondents might have felt it is more socially and culturally acceptable and desirable to report joint decision-making to portray a loving relationship when in true sense the husband is the one who makes the majority of the family planning decisions. The second possible explanation could be that although the majority of the spouses do actually make family planning decisions jointly, husbands are more influential in family planning especially when it comes to the actual use or whenever a stalemate arises.

5.3 Spousal Communication about Family Planning

As revealed by (Asa et al., 2018; Underwood et al., 2019), and others before them (Olawole-Isaac et al., 2017; Sharan & Valente, 2002; Tilahun et al., 2014), spousal communication is a cardinal predictor of modern contraceptive use. The study findings (table 6), suggest that discussion and negotiation between a husband and wife is instrumental in pursuing matters of common interests such as family planning. Moreover, such findings support the argument that spousal negotiation and consultation enables spouses in overcoming conflicting goals and preferences about family issues including family planning (Mason & Smith, 2000).

The results on spousal communication about family planning revealed that 64% (95% CI: 57.9-69.7%) of the couples reported good spousal communication while 36% had poor spousal communication. This finding is consistent with other studies (Asa et al., 2018;

Underwood et al., 2019) and (Adagala, 2014; Berhane, Biadgilign, et al., 2011; Tilahun et al., 2014). The comparison between these studies and the current study is shown in the table 11. The differences between the findings of these studies and the current study could be explained by the different tools used for measuring spousal communication and also by the differences in the sample sizes used.

Table 11: Comparing the findings on spousal communication regarding family planning between the current study and other studies

Level of spousal communication	**Current study**	(Berhane, Biadgilign, et al., 2011)	(Underwood et al., 2019)	(Adagala, 2014)	(Tilahun et al., 2014)	(Asa et al., 2018)
Good	64%	60.3%	57%	65.3%	69.3%	70.7%
Poor	36%	39.7%	43%	34.7%	30.7%	29.3%

The study results also show that spousal communication about family planning is a strong predictor of modern contraceptive use (AOR: 12.6; 95% CI: 6.81- 24.4; p-value < 0.001), supporting previous literature (Asa et al., 2018; Olawole-Isaac et al., 2017; Sharan & Valente, 2002). For example, (Sharan & Valente, 2002) found that those who communicated with their spouse were 10.2 times more likely to use a modern contraceptive method than those who did not. Similarly, the results from a study by (Olawole-Isaac et al., 2017) showed that those couples who had good communication were 4.37 times more likely to use family planning than those who had poor communication.

The large size of the odds for spousal communication as a predictor of family planning use could be due to two possible explanations. One plausible explanation could be that spousal communication may affect modern contraceptive use by transforming attitudes in to the actual or physical act of using family planning. For example, communication regarding the number of children a couple would like to have may enable spouses to reach an understanding and agreement about limiting fertility.

The second plausible explanation could be that spousal communication may enable spouses to exchange practical information about contraceptive methods. This may negate socio-psychological forces that discourage use of family planning by bringing about negative judgment or perception of modern contraceptive methods- causing emotional stress that impacts negatively on modern contraceptive use.

5.4 Association between Spousal Communication, and Spousal Concordance on Decision-making Power regarding Family Planning

Although spousal communication and spousal concordance or discordance in relation to family planning has been studied extensively, the linkage between the two has not been well explored (Underwood et al., 2019). As noted by (Olawole-Isaac et al., 2018), the association between the two is often assumed and rarely studied. Yet spousal communication and making family planning decisions jointly are widely recommended in the reproductive health and family planning literature (Shakya et al., 2018).

Arguably, the associations between spousal communication and making family planning decisions is the missing link in understanding how spousal communication affects fertility-

related practices (Prata et al., 2017). This study sought to contribute to addressing and bridging this research gap.

The results show positive associations between spousal communication about family planning, and spousal concordance on decision-making power in regard to all the four domains of family planning studied (use of contraceptive methods, choice of a contraceptive method, spacing of children, and desired family size) as shown in the tables 7a, 7b, 7c and 7d respectively.

The strongest association was found between spousal communication about family planning, and spousal concordance on decision-making power regarding use of a modern contraceptive method (AOR: 8.18; 95% CI: 4.58- 15.1; p-value <0.001); while the weakest association was found between spousal communication about family planning, and spousal concordance on decision-making power regarding choice of a modern contraceptive method (AOR: 5.32; 95% CI: 3.04- 9.57; p-value <0.001). These findings are consistent with results from another study in Nepal which found that couples who had communicated about three family planning matters were more than twice more likely to agree on decision-making regarding family planning than those who did not communicate (Underwood et al., 2019).

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

This study revealed that more than 90% of the couples with concordance made the decision regarding use of family planning, spacing of children and desired family size jointly; as compared to two-thirds (66.4%) of the couples with concordance who made the decision regarding choice of a modern contraceptive method jointly.

In a third (32.9%) of the couples with concordance, the decision regarding choice of a modern contraceptive method was made by the wife only- which was more than for the decision made by the wife only in other family planning matters: modern contraceptive use (5.2%), spacing of children (4.3%) and desired family size (2.2%). This suggests that women have much power when it comes to making decision regarding choice of a contraceptive method than on other family planning matters (use of a modern contraceptive method, spacing of children and desired family size).

While only 0.6% of the couples with concordance reported that the decision regarding family planning use was made by the husband only, there was 2.7- fold and about 2- fold increase in modern contraceptive use whenever the husband did not want to have additional children and whenever the husband wanted to space children for a longer duration than the wife, respectively. This suggest that husbands play a more influential role in family planning. Moreover, study findings show that spouses who agree on making family planning decisions are more likely to use a modern contraceptive method than those who disagree.

As far as spousal communication is concerned, about two-thirds of the couples (64%) had communicated about family planning while more than a third (36%) had poor communication about family planning.

Another conclusion we can draw from the study findings is that spouses who communicate about family planning are more than 10 times more likely to use a modern contraceptive method than those who do not communicate. Furthermore, spouses who communicate about family planning are more likely to reach an agreement on making family planning decisions than those who do not communicate.

6.2 Recommendations

From a policy perspective, these study findings suggest that there should be a paradigm shift in the way family planning programs are carried out from putting emphasis on females only to involving male spouses as well. This can be achieved by operationalizing ministry of health's (MoH) guidelines on ways of engaging men in family planning. These MoH recommendations on ways of engaging men in FP include: introducing family clinics and outreaches for FP that target men at appropriate places like place of work; encouraging men to accompany their wives to the health facility; making use of male peer educators and champions; engaging male political and opinion leaders; utilizing male healthcare workers as role models to reach other men; adding other services that are beneficial to men (like screening for prostate cancer) to the FP package; empowering men with information about FP and dispel any fears, myths and misconceptions; enlightening men about male-specific contraceptive methods like condoms and vasectomy, among others.

Based on the finding that those spouses who communicate about family planning are more likely to agree on decisions regarding family planning and consequently result in improved use of modern contraceptive methods, family planning programs should facilitate, enhance and integrate policies that promote couples' communication on family planning matters. We can utilize platforms like church functions and community meetings to share FP information, create awareness and encourage spouses to communicate about family planning. Furthermore, family planning programs should enhance public or community education on family planning by developing educational messages targeting couples or specifically tailored for the couples.

REFERENCES

ACOG. (2015). *Induced Abortion - ACOG*. https://www.acog.org/Patients/FAQs/Induced-Abortion?IsMobileSet=false

Adagala, L. S. (2014). *Male participation in family planning decision making: a case study of married men in Vihiga county, western Kenya*. *September*.

Adelekan, A., Omoregie, P., & Edoni, E. (2014). Male Involvement in Family Planning : Challenges and Way Forward. *Hindawi International Journal of Population Research*, *2014*.

Adeyinka, A. R., Asabi, O., & Adedotun, O. O. (2012). *Knowledge and P ractice of Contraception among Women of Reproductive Ages in South West, Nigeria*. *1*(2), 70–76. www.theijes.com

African Union. (2001). AFRICA SUMMIT: ABUJA DECLARATION ON HEALTH. *African Journal of Reproductive Health*, *3*(8), 1–7.

African Union. (2003). *Maputo Protocol*. https://web.archive.org/web/20120415144600/http://www.gtz.de/de/dokumente/en-fgm-maputoprotocol.pdf

Ankomah, A., Anyanti, J., & Oladosu, M. (2011). Myths, misinformation, and communication about family planning and contraceptive use in nigeria. *Open Access Journal of Contraception*, *2*(1), 95–105. https://doi.org/10.2147/OAJC.S20921

APHRC. (2018). *What it takes: Meeting unmet need for family planning in East Africa*. http://aphrc.org/wp-content/uploads/2018/05/Meeting-unmet-need-for-FP-Policy-Brief_Final.pdf

Araoye, M. O. (2006). Communication and decision-making about reproductive health issues within couples in Kwara State, Nigeria. *Tropical Journal of Obstetrics and Gynaecology*, *23*(1), 63–69. https://doi.org/10.4314/tjog.v23i1.14568

Asa, U. A., Nkan, V. V., & Okoro, G. I. (2018). Spousal communication and contraceptive use among married couples in rural areas of Akwa Ibom State, Nigeria. *Journal of Educational and Social Research*, *8*(1), 51–58. https://doi.org/10.2478/JESR-2018-0006

Bayray, A. (2012). ASSESSMENT OF MALE INVOLVEMENT IN FAMILY PLANNING USE AMONG MEN IN SOUTH EASTERN ZONE OF TIGRAY , ETHIOPIA. *Scholarly Journal of Medicine*, *2*(2), 1–10.

Berhane, Biadgilign, S., Amberbir, A., Morankar, S., & Deribe, K. (2011). Men ' s Knowledge and Spousal Communication about Modern Family Planning Methods in Ethiopia. *African Journal of Reproductive Health*, *15*(December), 24–32.

Berhane, Sibhatu, B., Alemayehu, A., Sudhakar, M., & Kebede, D. (2011). Men's Knowledge and Spousal Communication about Modern Family Planning Methods in

Ethiopia. *African Journal of Reproductive Health*, *15*(4), 24–32. https://www.ajol.info/index.php/ajrh/article/view/74786/65389

Berhane, Y., Gossaye, Y., Emmelin, M., & Hogberg, U. (2001). Women's health in a rural setting in societal transition in Ethiopia. In *Social Science & Medicine* (Vol. 53). https://s3.amazonaws.com/academia.edu.documents/45708264/Womens_Health_in_Rural_Setting_in_Socie20160517-873-q4bh8u.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1554660753&Signature=0i98kDzMae1zIJ46r4Bjk%2FZlaIE%3D&response-content-disposition=inline%3B filename%3DWomens_health_in_a_rural_setting_in_soci.pdf

Bogale, B., Wondafrash, M., Tilahun, T., & Girma, E. (2011). Married women's decision making power on modern contraceptive use in urban and rural southern Ethiopia. *BMC Public Health*, *11*(1), 342. https://doi.org/10.1186/1471-2458-11-342

Broderick, C. B. (1993). *Understanding family process : basics of family systems theory*. Sage Publications.

Challa, S., Boyce, S., Shakya, H., Carter, N., Brooks, M., Aliou, S., & Silverman, J. (2018). *Decision-making and power dynamics among couples and the implications for contraceptive uptake*.

Cox, C. M., Hindin, M. J., Otupiri, E., & Larsen-Reindorf, R. (2013). Understanding Couples' Relationship Quality And Contraceptive Use in. *Perspectives on Sexual and Reproductive Health*, *39*(4), 185–194. https://doi.org/10.1363/3918513

De Gita, G. (2007). *Spousal Communication and Family Planning Behavior in Northern Cape, South Africa*. 1–95.

DHIS. (2018). *Kenya Health Information System*. https://hiskenya.org/dhis-web-commons/security/login.action

Diro, C. W., & Afework, M. F. (2013). Agreement and concordance between married couples regarding family planning utilization and fertility intention in Dukem, Ethiopia. *BMC Public Health*, *13*(903), 1–7. https://doi.org/10.1186/1471-2458-13-903

Dixit, A., Johns, N. E., Ghule, M., Battala, M., Begum, S., Yore, J., Saggurti, N., Silverman, J. G., Reed, E., Benmarhnia, T., Averbach, S., & Raj, A. (2021). Male–female concordance in reported involvement of women in contraceptive decision-making and its association with modern contraceptive use among couples in rural Maharashtra, India. *Reproductive Health*, *18*(1), 1–9. https://doi.org/10.1186/S12978-021-01187-8/TABLES/3

Dockalova, B., Lau, K., Barclay, H., & Marshall, A. (2016). Sustainable Development Goals and Family Planning 2020. *International Planned Parenthood Federation*, 1–12.

Dodoo, F. N.-A., Ezeh, A. C., & Owuor, T. O. (2001). Some Evidence against the Assumption That Approval of Family Planning is Associated with Frequency of Spouses' Discussion of the Subject. *Population Studies*, *55*(2), 195–198.

GoK. (2011). *Comprehensive National Health Policy Framework 2011-2030*.

GoK, & FP2020. (2017). FAMILY PLANNING 2020 COMMITMENT GOVT. OF KENYA. *Http://Www.Familyplanning2020.Org/Kenya*, *2*(1), 1–3.

GoK, & KLR. (2010). The Constitution of Kenya, 2010. *National Council For Law Reporting*, 19–26. www.kenyalaw.com

GoK, & KNCHR. (2012). *Realising Sexual and Reproductive Health Rights in Kenya: A myth or reality?*

Gok, & NCAPD. (2010). Fulfilling Unmet Need for Family Planning Can Help Kenya Achieve Vision 2030. *Policy Brief*, *13*(June), 1–8.

GoK, & NCAPD. (2010). Equalizing Access to Family Planning Can Reduce Poverty and Improve Health. *Policy Brief*, *1*(10), 1–8. http://www.ncpd.go.ke/wp-content/uploads/2016/11/Policy-Brief-10-Family-Planning-Inequality-Poverty-6Jul.pdf

GoK, & NCPD. (2012). NATIONAL COUNCIL FOR POPULATION AND DEVELOPMENT MINISTRY OF STATE FOR PLANNING, NATIONAL DEVELOPMENT AND VISION 2030 REPUBLIC OF KENYA Sessional Paper No. 3 of 2012 on Population Policy for National Development. *African Population Studies*, *2*(3), 1–46.

GoK, & NCPD. (2015). FAMILY PLANNING IN KENYA : SAVING LIVES , SAVING MONEY. *Policy Brief*, 1–2.

Gok, & Oxfam. (2014). Implementing the Protocol on the Rights of Women in Africa: Analysing the Compliance of Kenya's Legal Framework. *African Journal of Reproductive Health*, *2*(4), 19–30.

Guttmacher. (2012). *Postabortion care is inadequate*. *2*, 1–4. https://doi.org/10.1016/j.adolescence.2011.06.008

Hameed, W., Azmat, S. K., Ali, M., Sheikh, M. I., Abbas, G., Temmerman, M., & Avan, B. I. (2014). Women's Empowerment and Contraceptive Use: The Role of Independent versus Couples' Decision-Making, from a Lower Middle Income Country Perspective. *PLoS ONE*, *9*(8), e104633. https://doi.org/10.1371/journal.pone.0104633

Haviland, W. A., Prins, H. E. L., McBride, B., & Walrath, D. (2013). *Cultural anthropology : the human challenge*.

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

Ijadunola, M. Y., Abiona, T. C., Ijadunola, K. T., Afolabi, O. T., Esimai, O. A., & Olaolorun, F. M. (2010). *Male Involvement in Family Planning Decision Making in Ile-Ife , Osun State , Nigeria*. *14*(December), 45–52.

Irani, L., Speizer, I. S., & Fotso, J.-C. (2014). Relationship Characteristics and Contraceptive Use Among Couples in Urban Kenya. *International Perspectives on Sexual and Reproductive Health*, *40*(1), 11–20. https://doi.org/10.1363/4001114

Izugbara, C., Wekesah, F., Tilahun, T., Amo-adjei, J., & Dimbuene, Z. T. (2018). *Family Planning in East Africa : Trends and Dynamics i*. *January*.

Kaida, A., Kipp, W., Hessel, P., & Konde-lule, J. (2005). *MALE PARTICIPATION IN FAMILY PLANNING : RESULTS FROM A QUALITATIVE STUDY IN MPIGI DISTRICT , UGANDA*. 269–286. https://doi.org/10.1017/S0021932004007035

Kassa, M., Abajobir, A. A., & Gedefaw, M. (2014). *Level of male involvement and associated factors in family planning services utilization among married men in Debremarkos town , Northwest Ethiopia*. 1–8.

KDHS. (2014). *Kenya Demographic and Health Survey*.

Koffi, A. K., Becker, S., Tsui, A. O., Adjiwanou, V. D., & Olaolorun, F. (2012). Correlates of and Couples' Concordance in Reports of Recent Sexual Behavior and Contraceptive Use. In *Stud Fam Plann* (Vol. 43, Issue 1).

Kulczycki, A. (2008). Husband-Wife Agreement, Power Relations And Contraceptive Use in Turkey. In *Source: International Family Planning Perspectives* (Vol. 34, Issue 3). https://www.jstor.org/stable/pdf/27642868.pdf?refreqid=excelsior%3Ab4023d3aa93b5dbb5d82e7f62a1d8d9f

Lakshmi, M., Neetha, N., & Rai, S. (2013). Contraceptive practices among reproductive age group of women in Justice K. S. Hegde Medical College Hospital, Mangalore. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, 39–46. https://doi.org/10.5455/2320-1770.IJRCOG20130207

Lasee, A., & Becker, S. (n.d.). *Husband-Wife Communication About Family Planning and Contraceptive Use in Kenya*. Retrieved April 7, 2019, from https://www.guttmacher.org/sites/default/files/article_files/2301597.pdf

Lasee, A., & Becker, S. (1997). Husband-Wife Communication About Family Planning and Contraceptive Use in Kenya. In *Source: International Family Planning Perspectives* (Vol. 23, Issue 1). https://www.jstor.org/stable/pdf/2950781.pdf?refreqid=excelsior%3Ad4c3b31cde6c498c94c816506d92c848

Link, C. F. (2011a). Spousal communication and contraceptive use in rural Nepal: An event history analysis. *Studies in Family Planning*, *42*(2), 83–92. https://doi.org/10.1111/j.1728-4465.2011.00268.x

Link, C. F. (2011b). Spousal Communication and Contraceptive Use in Rural Nepal: An

Event History Analysis. In *Family Planning* (Vol. 42, Issue 2). https://www.jstor.org/stable/pdf/41310714.pdf

Maharaj, P., & Cleland, J. (2005). Women on top: the relative influence of wives and husbands on contraceptive use in KwaZulu-Natal. *Women & Health*, *41*(2), 31–41. https://doi.org/10.1300/J013V41N02_03

Mason, K. O., & Smith, H. L. (2000). HUSBANDS' VERSUS WIVES' FERTILITY GOALS AND USE OF CONTRACEPTION: THE INFLUENCE OF GENDER CONTEXT IN FIVE ASIAN COUNTRIES *. *Demography*, *37*(3), 299–311. http://read.dukeupress.edu/demography/article-pdf/37/3/299/884589/299mason.pdf

Mboane, R., & Bhatta, M. P. (2015). Influence of a husband ' s healthcare decision making role on a woman ' s intention to use contraceptives among Mozambican women. *Biomed Central*, 1–8. https://doi.org/10.1186/s12978-015-0010-2

Mesfin, G. (2002). The role of men in fertility and family planning program in Tigray Region. *Ethiopian Journal of Health Development*, *16*(3), 2–16. https://doi.org/10.4314/ejhd.v16i3.9822

Mishra, A., Nanda, P., Speizer, I. S., Calhoun, L. M., Zimmerman, A., & Bhardwaj, R. (2014). Men's attitudes on gender equality and their contraceptive use in Uttar Pradesh India. *Reproductive Health*, *11*(1), 41. https://doi.org/10.1186/1742-4755-11-41

MoH. (2007). NATIONAL REPRODUCTIVE HEALTH POLICY ENHANCING REPRODUCTIVE HEALTH STATUS FOR ALL KENYANS. *African Journal of Reproductive Health*, *3*(5), 10–13. www.health.go.ke

MoH. (2012). *Sessional Paper No. 6 of 2012 on the Kenya Health Policy 2012-2030*. *1*(6).

MoH. (2014). *National Family Planning: Costed Implementation Plan (Kenya)*. https://www.fhi360.org/resource/national-family-planning-costed-implementation-plan-kenya

MoH. (2016). *National Guidelines for Quantification, Procurement and Pipeline Monitoring for Family Planning Commodities in Kenya*.

MoH, & NACC. (2001). *National Condom Policy and Strategy 2001-2005*.

MoH, & NCPD. (2003). *Kenya adolescent RepRoductive HealtH and development policy implementation assessment RepoRt*.

MoH, & Pepfar. (2016). HEALTH FINANCING PROFILE KENYA. *African Journal of Reproductive Health*, *7*(12), 1–2. http://www.healthdata.org/gbd/data.

MoH, & USAID. (2009). *National Reproductive Health Strategy 2009-2015*. http://guidelines.health.go.ke:8000/media/NationalRHStrategy.pdf

MoH, & USAID. (2021). Is Kenya Allocating Enough Funds for Healthcare? Findings and

Recommendations from National and County Budget Analyses. *African Journal of Reproductive Health*, *7*(12), 1–8.

Mosha, I., Ruben, R., & Kakoko, D. (2013). Family planning decisions , perceptions and gender dynamics among couples in Mwanza , Tanzania : a qualitative study. *BMC Public Health*.

Mutombo, N., Bakibinga, P., Mukiira, C., & Kamande, E. (2014). Benefits of family planning: an assessment of women's knowledge in rural Western Kenya. *BMJ Open*, *4*, 4643. https://doi.org/10.1136/bmjopen-2013-004643

Nangendo, S. M. (2012). KNOWLEDGE AND USE OF FAMILY PLANNING METHODS AND SERVICES IN WEST YIMBO DIVISION, BONDO DISTRICT, WESTERN KENYA. *African Study Monographs*, *33*(4), 233–251.

Ngethe, P. N. (2014). Family Planning in Kenya : A Review of National and District Policies and Budgets. *DSW*, *1*(May), 12–40.

Odusina, E. K., Bisiriyu, L., & Akinyemi, A. (2015). Determinants of concordance and discordance reporting of contraceptive use among couples in Nigeria: Evidence from NDHS. *Etude de La Population Africaine*, *29*(2), 1801–1809. https://doi.org/10.11564/29-2-740

Oladeji, D. (2008). Communication and Decision-Making Factors Influencing Couples Interest in Family Planning and Reproductive Health Behaviours in Nigeria. *Studies of Tribes and Tribals*, *6*(2), 99–103. https://doi.org/10.1080/0972639x.2008.11886582

Olawole-Isaac, A., Oni, G. A., Oladosun, M., & Amoo, E. O. (2018). Inter-spousal communication: A means for achieving concordant fertility goals. *African Population Studies*, *32*(1). https://doi.org/10.11564/32-1-1178

Olawole-Isaac, A., Oni Gbolahan, A., Oladosu, M., Amoo Emmanuel, O., & Adekola, P. O. (2017). Inter-Spousal Communication As a Determinant of Contraceptive Use in Nigeria: a Mixed Method. *IJASOS- International E-Journal of Advances in Social Sciences*, *III*(8), 645–654. https://doi.org/10.18769/ijasos.337324

Omwago, M. O., & Khasakhala, A. A. (2006). Factors influencing couples' unmet need for contraception in Kenya. *Etude de La Population Africaine*, *21*(2), 6–23. https://doi.org/10.11564/21-2-342

Onyango, M., Owoko, S., & Oguttu, M. (2010a). Factors that Influence Male Involvement in Sexual and Reproductive Health in Western Kenya : A Qualitative Study. *African Journal of Reproductive Health*, *14*(December), 33–44.

Onyango, M., Owoko, S., & Oguttu, M. (2010b). Factors that influence male involvement in sexual and reproductive health in western Kenya: a qualitative study. *African Journal of Reproductive Health*, *14*(4), 33–44. https://www.ajol.info/index.php/ajrh/article/view/67831

Owino, B., Ochako, R., Mgamb, E., Sidha, H., & Adeke, V. (2017). Setting New Goals for Family Planning in Kenya Building on Decades of Progress in Contraceptive Use. *Population Reference Bureau*, *1*(September), 10–25.

Oyediran, K., Ishola, G., & Feyisetan, B. (2002). Factors affecting ever-married men ' s contraceptive knowledge and use in Nigeria. *Journal of Biosocial Science*, *34*(November), 497–510. https://doi.org/10.1017/S0021932002004972

Oyediran, K., & Isiugo-Abanihe, U. C. (2002). Husband-Wife Communication and Couple's Fertility Desires among the Yoruba of Nigeria[1]. In *African Population Studies* (Vol. 17, Issue 2). http://www.bioline.org.br/request?ep02010http://www.bioline.org.br/request?ep02010

Population Research Institute. (2014). *Definitions of Maternal Mortality Morbidity versus Mortality*. https://www.pop.org/files/pub/doc/Maternal _Mortality_revised.pdf

Prata, N., Bell, S., Fraser, A., Carvalho, A., Neves, I., & Nieto-Andrade, B. (2017). Partner Support for Family Planning and Modern Contraceptive Use in Luanda, Angola. *African Journal of Reproductive Health*, *21*(2).

Random Number Generator. (n.d.). Retrieved November 14, 2019, from https://stattrek.com/statistics/random-number-generator.aspx

Shakya, H. B., Dasgupta, A., Ghule, M., Battala, M., Saggurti, N., Donta, B., Nair, S., Silverman, J., & Raj, A. (2018). Spousal discordance on reports of contraceptive communication, contraceptive use, and ideal family size in rural India: A cross-sectional study. *BMC Women's Health*, *18*(1), 1–14. https://doi.org/10.1186/S12905-018-0636-7/FIGURES/3

Sharan, M., & Valente, T. W. (2002). Spousal Communication and Family Planning Adoption: Effects of a Radio Drama Serial in Nepal. In *Source: International Family Planning Perspectives* (Vol. 28, Issue 1). https://www.jstor.org/stable/pdf/3088271.pdf?refreqid=excelsior%3A046136b2ac6381809841a7443ca3d04c

Shattuck, D., Kerner, B., Gilles, K., Hartmann, M., Ng'ombe, T., & Guest, G. (2011). Encouraging contraceptive uptake by motivating men to communicate about family planning: The Malawi Male Motivator project. *American Journal of Public Health*, *101*(6), 1089–1095. https://doi.org/10.2105/AJPH.2010.300091

Starbird, E., & Norton, M. (2016). Investing in Family Planning : Key to Achieving the Sustainable Development Goals. *Global Health: Science and Practice*, *15*(374), 1–20.

The Commission for the Implementation of the Constitution (CIC). (2015). *County Government of Bungoma: Health Facilities Assessment Report*.

Tilahun, T. (2014). Marital dynamics in family planning : the role of couple interaction in

Jimma zone , Southwest Ethiopia. *International Centre for Reproductive Health*, *10*(November), 45–93.

Tilahun, T., Coene, G., Temmerman, M., & Degomme, O. (2014). Spousal discordance on fertility preference and its effect on contraceptive practice among married couples in Jimma zone, Ethiopia. *Biomed Central*, *11*(27), 1–10. https://doi.org/10.1186/1742-4755-11-27

Tumlinson, K., Speizer, I. S., Davis, J. T., Fotso, J. C., Kuria, P., & Archer, L. (2014). *Partner communication, discordant fertility goals, and contraceptive use in urban Kenya*.

Uddin, J., Hossin, M., & Pulok, M. (2017). Couple's concordance and discordance in household decision-making and married women's use of modern contraceptives in Bangladesh. *Biomed Central*, *17*(107), 1–10. https://doi.org/10.1186/s12905-017-0462-3

Uddin, J., & Pulok, M. H. (2016). Correlates of unmet need for contraception in Bangladesh: Does couples' concordance in household decision-making matter? *Contraception*, *94*(February), 18–26. https://doi.org/10.1016/j.contraception.2016.02.026

UN. (2014). *UNMET NEED FOR FAMILY PLANNING*. http://measuredhs.com/Topics/Unmet-Need.cfm

UN. (2015). *TRANSFORMING OUR WORLD: THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT*.

UN. (2019). *Family planning:Unfpa*. https://www.unfpa.org/family-planning

UN, & ICPD. (1994). International Conference on Population and Development (ICPD) 1994. *African Journal of Reproductive Health*, *1*(4), 45–54.

UN, & UNDESA. (2019). Family Planning and the 2030 Agenda for Sustainable Development Data Booklet. *African Population Studies*, *10*(3), 1–24. http://creativecommons.

UN, & USAID. (2016). *Family Planning and the Sustainable Development Goals - Pace of Progress | FP2020 Momentum at the Midpoint 2015-2016*. http://2015-2016progress.familyplanning2020.org/page/pace-of-progress/family-planning-and-the-sustainable-development-goals

UN, & WFP. (2017). *World Family Planning Highlights 2017*.

UN, & WPP. (2017). *World Population Prospects The 2017 Revision*.

Underwood, C. R., Dayton, L. I., & Hendrickson, Z. M. (2019). Concordance, communication, and shared decision-making about family planning among couples in Nepal: A qualitative and quantitative investigation. *Journal of Social and Personal Relationships*, *2020*(2), 357–376. https://doi.org/10.1177/0265407519865619

United Nations. (1995). Fourth World Conference on Women | United Nations. *African Journal of Reproductive Health*, *3*(10), 1–2. https://www.un.org/en/conferences/women/beijing1995

United Nations. (2015). *The Millenium Development Goals Report*.

UNPF. (2014). *Programme of Action*.

USAID. (2021). *Family Planning and Reproductive Health | U.S. Agency for International Development*. https://www.usaid.gov/global-health/health-areas/family-planning

Walle, Y., & Alamrew, Z. (2016). *The Current States of Male Involvement on Family Planning and Factors Correlated with among Male Factory Workers in Bahir Dar City*. *January*. https://doi.org/10.12691/ajphr-2-5-2

WHO. (2014). WHO | Preventing unsafe abortion. *WHO*. https://www.who.int/reproductivehealth/topics/unsafe_abortion/hrpwork/en/

WHO. (2015). *Health information indicators/infant mortality rate*. https://www.who.int/healthinfo/indicators/2015/chi_2015_27_mortality_infant.pdf?ua=1

WHO. (2017a). *Family planning/Contraception*. https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception

WHO. (2017b). World Health Organization, Total Fertility Rate. *SEARO*. http://www.searo.who.int/entity/health_situation_trends/data/chi/TFR/en/

WHO, & GoK. (2018). *Kenya Health Sector Strategic Plan*. *4*.

Yadav, K., Singh, B., & Goswami, K. (2009). Unmet family planning need: differences and levels of agreement between husband-wife, haryana, India. *Indian Journal of Community Medicine : Official Publication of Indian Association of Preventive & Social Medicine*, *34*(3), 188–191. https://doi.org/10.4103/0970-0218.55281

Yue, K., O'Donnell, C., & Sparks, P. L. (2010). The effect of spousal communication on contraceptive use in Central Terai, Nepal. *Patient Education and Counseling*, *81*(3), 402–408. https://doi.org/10.1016/J.PEC.2010.07.018

APPENDIX

APPENDIX I: PARTICIPANT INFORMATION SHEET

HUSBAND-WIFE DYNAMICS PREDICTING MODERN CONTRACEPTIVE USE AMONG COUPLES ATTENDING CHILD HEALTH CLINIC AT WEBUYE COUNTY HOSPITAL, WESTERN KENYA

Information Sheet

My name is…….....; I am here to collect data about the couple relationship and interaction factors that may influence the uptake of modern contraceptive methods among married couples attending Child Health Clinic (CHC) at Webuye County Hospital (WCH). Factors to be assessed include: spousal concordance on family planning (FP), decision-making power on FP, spousal communication about FP, socio-demographic and socio-economic factors among others. No risks or discomforts whatsoever would be anticipated from your participation in this study. By participating in this study, it is rather anticipated that you would have the opportunity to discuss how you and your spouse communicate, agree and make decisions regarding family planning.

In 2015, there were an estimated 214 million women of reproductive age in developing countries with unmet need for modern contraception. If this unmet need for family planning were to be fulfilled, up to one third of the estimated 47,000 maternal deaths occurring in these developing countries- including Kenya, could be avoided. About 5,500 mothers which are lost in Kenya each year due to complications related to pregnancy and birth could be saved with the use of modern contraception. In 2014, use of modern contraceptive methods in Kenya was more among sexually active unmarried women (61%) than among currently married women (53.2%).

In this respect, there is need to carry out this study on couple dynamics affecting use of modern contraception, as family planning is not women only issue but rather influenced by marital dyads and couple relationship and interaction factors. The study is being conducted at the CHC of Webuye County Hospital on 271 married couples. The clients selected to participate in the study but who come to the CHC without their spouse would be requested to bring along their spouse for the interview on a later agreed date and place of their convenience. Signing on an agreement document confirming being aware of what the study is about and willing to take part in it will be a requirement for couples who wish to participate in the study. If you are willing to participate in this study, you will be interviewed about your socio-demographic and socio-economic background. You will also be interviewed about how you and your spouse discuss or communicate, agree and make decisions about family planning.

The study primarily focuses on married couples who have been married or cohabited for at least one year and who have at least one living child; and who have brought their children for immunization against measles at the CHC of Webuye County Hospital. Wives must be between 18-49 years old while husbands must be above 18 years of age. Participants must be willing to provide truthful and genuine information. They should also be willing to sign the informed consent form. You will be asked questions by the interviewer using questionnaires. Your participation in this study will last about 20-30 minutes.

The major aim of this study is to examine the role of couple dynamics and marital dyads in determining uptake of modern contraceptive methods among couples attending CHC at Webuye County Hospital.

It is hoped that the findings of this study will be of beneficial to other people in future; for example with devising a suitable intervention to enhance uptake of modern contraceptive methods and, in effect, to reduce unintended pregnancies and unsafe abortions with resultant reduction in maternal and infant mortality. There will be no compensation or cash benefits that will be rendered to you as a direct incentive to your participation in this study.

The information provided during this study will remain confidential. Participant's names and any other identifying details will not be included on the questionnaire. All the documents of this study will be kept private. Your participation in this study is voluntary and you are free to skip any question or refuse to participate totally if you are not comfortable at any occasion.

If you have any questions about this study, please do not hesitate to contact the researcher and/or the research assistants at the study site. Please ask any questions you have now; or you can contact the researcher later:

Researcher's mobile telephone number.…… Email.……

Research Assistant's mobile telephone number.……. Email……

If you have any concerns or questions about your rights as a participant in this study, you can contact the Institutional Review and Ethics Committee (IREC) of Moi University at: IREC, Moi Teaching & Referral Hospital building, 2nd floor, Door No. 219; P.O BOX 3-30100, Eldoret Kenya; Office line: 0787723677; Email: irecoffice@gmail.com; Website: irec.or.ke.

Are you willing/interested to participate in this study?

Yes…… **No……**

APPENDIX II: CONSENT FORM

Certificate of Consent

I have been invited to participate in the study investigating the role of couple dynamics in uptake of modern contraceptive methods. I have been well informed that the study will involve an interview which I understand and willing to do. I have also been informed and convinced that if I take part in this study, there would be no risks whatsoever. Moreover, I am well aware that my participation in the study may be of no benefit to me personally. The name and address of the researcher/s have been provided to me and therefore should the need arise, I can easily contact them.

I have read the foregoing information. I have been given the opportunity to ask questions which have been answered to my satisfaction. I consent voluntarily to participate as a participant in this study. I am well aware that I have the right to withdraw at any time from the study.

Name of participant……...

Signature of participant…… Date……

I have read or witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

Name of data collector……..

Signature of Researcher…… Date……

If illiterate:

I have witnessed the entire informed consent process with the potential participant. All questions from the potential participant have been answered and the potential participant has freely agreed to participate in this study.

Name of the witness: …….

Signature of witness: …… Date…….

A copy of this informed consent form will be provided to participant.

APPENDIX III: IREC APPROVAL LETTER

INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE (IREC)

MOI TEACHING AND REFERRAL HOSPITAL
P.O. BOX 3
ELDORET
Tel: 33471/2/3

MOI UNIVERSITY
COLLEGE OF HEALTH SCIENCES
P.O. BOX 4606
ELDORET
Tel: 33471/2/3

Reference: IREC/2019/306
Approval Number: 0003560

27th February, 2020

INSTITUTIONAL RESEARCH & ETHICS COMMITTEE
27 FEB 2020
APPROVED
P. O. Box 4606 - 30100 ELDORET

Dr. Douglas Wanjala Makali,
Moi University,
School of Medicine,
P.O. Box 4606-30100,
ELDORET-KENYA.

Dear Dr. Makali,

HUSBAND-WIFE DYNAMICS PREDICTING MODERN CONTRACEPTIVE USE AMONG COUPLES ATTENDING THE CHILD HEALTH CLINIC AT WEBUYE COUNTY HOSPITAL, WESTERN KENYA

This is to inform you that ***MU/MTRH-IREC*** has reviewed and approved your above research proposal. Your application approval number is ***FAN: 0003560.*** The approval period is **27th February, 2020 – 26th *February, 2021.***

This approval is subject to compliance with the following requirements;

i. Only approved documents including (informed consents, study instruments, MTA) will be used.
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by ***MU/MTRH-IREC***.
iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to ***MU/MTRH-IREC*** within 72 hours of notification.
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to ***MU/MTRH-IREC*** within 72 hours.
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study to ***MU/MTRH-IREC.***

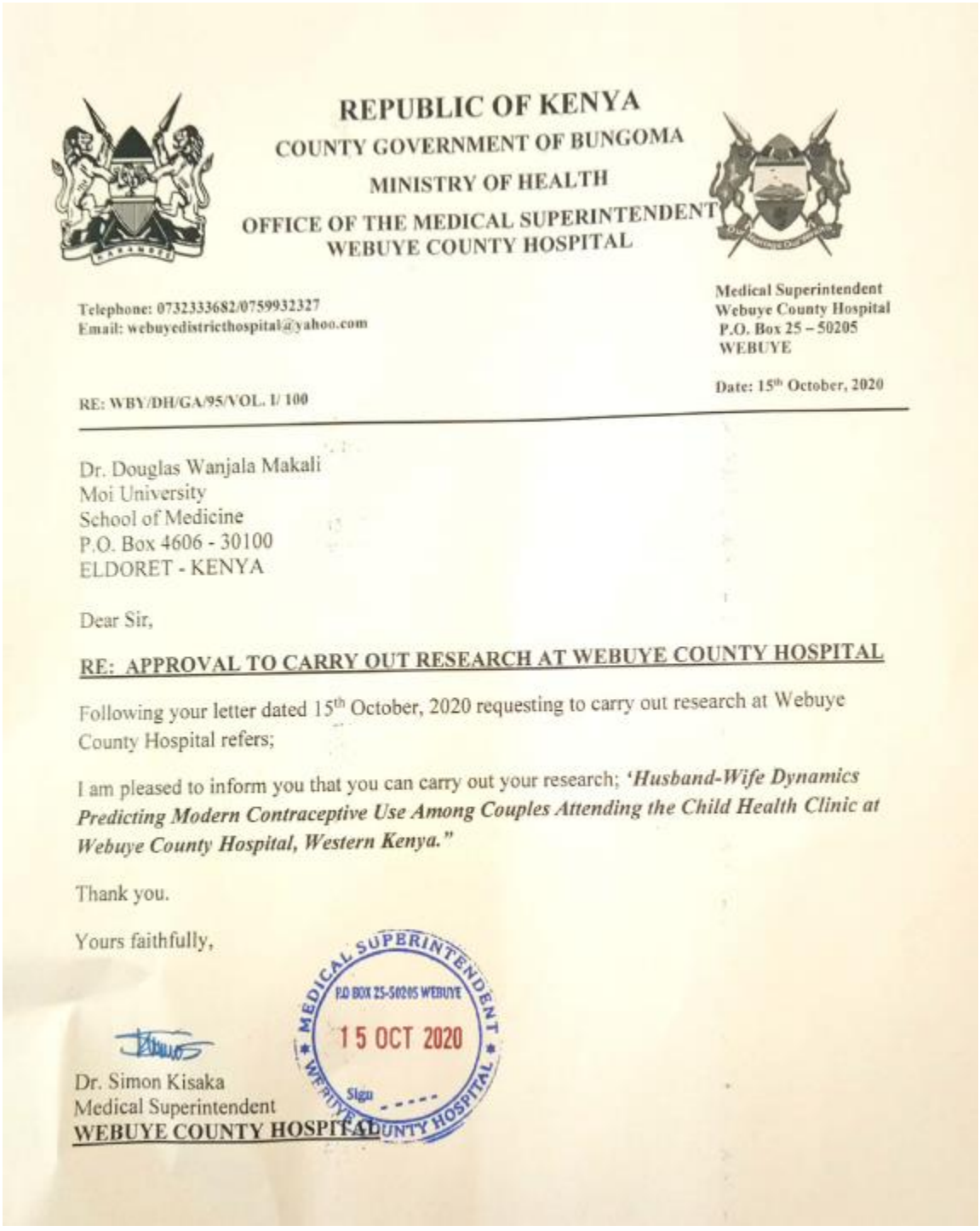
Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://oris.nacosti.go.ke and also obtain other clearances needed.

Sincerely,

DR. S. NYABERA
DEPUTY-CHAIRMAN
INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE

cc CEO - MTRH Dean - SOP Dean - SOM
Principal - CHS Dean - SON Dean - SOD

APPENDIX IV: WEBUYE COUNTY HOSPITAL APPROVAL LETTER



REPUBLIC OF KENYA
COUNTY GOVERNMENT OF BUNGOMA
MINISTRY OF HEALTH
OFFICE OF THE MEDICAL SUPERINTENDENT
WEBUYE COUNTY HOSPITAL

Telephone: 0732333682/0759932327
Email: webuyedistricthospital@yahoo.com

Medical Superintendent
Webuye County Hospital
P.O. Box 25 – 50205
WEBUYE

RE: WBY/DH/GA/95/VOL. 1/ 100

Date: 15th October, 2020

Dr. Douglas Wanjala Makali
Moi University
School of Medicine
P.O. Box 4606 - 30100
ELDORET - KENYA

Dear Sir,

RE: APPROVAL TO CARRY OUT RESEARCH AT WEBUYE COUNTY HOSPITAL

Following your letter dated 15th October, 2020 requesting to carry out research at Webuye County Hospital refers;

I am pleased to inform you that you can carry out your research; ***'Husband-Wife Dynamics Predicting Modern Contraceptive Use Among Couples Attending the Child Health Clinic at Webuye County Hospital, Western Kenya."***

Thank you.

Yours faithfully,

MEDICAL SUPERINTENDENT
P.O BOX 25-50205 WEBUYE
15 OCT 2020
Sign
WEBUYE COUNTY HOSPITAL

Dr. Simon Kisaka
Medical Superintendent
WEBUYE COUNTY HOSPITAL

APPENDIX V: STUDY QUESTIONNAIRE

PART A: Respondent's Background (socio-demographic and economic characteristics)

101	How old are you?	1. Wife: 2. Husband:
102	Have you ever attended school?	1. Yes 2. No ⟶ Go to Q104
103	What is the highest level of education you attained?	1. Primary 2. Secondary 3. Post-secondary 4. Other (specify)…… 5. Don't know
104	What is your occupation?	1. Student 2. Government employee 3. Non-government employee 4. Private employee 5. Self-employed 6. Unemployed 7. Others (specify)…….

105	Where do you and your family stay?	1. Rural 2. Urban 3. Other (specify)……..
106	What is your estimated family average monthly income?	1. Less than Kshs.20,000 2. Between Kshs.20,000-100,000 3. More than Kshs.100,000 4. Don't know

PART B: Couple Relationship and Attitudinal Factors

107	How long have you been married?	
108	How many living children do you have?	
109	Do you desire to have additional/more children?	1. Yes 2. No ⟶ Go toQ111 3. Not sure

110	How many more children would you like to have?	
111	What sex would you prefer your next child to be?	1. Boy/male 2. Girl/female 3. Either (I don't mind either) 4. Not sure
112	What is the total or ideal number of children would you like to have?	
113	What sex would you prefer the children of your desired family size to be? (What sex composition would you prefer your desired family size to be comprised of?)	1. Boys only 2. Girls only 3. Boys > Girls 4. Girls > Boys 5. Boys = Girls 6. Not sure
114	How many years of intervals do you think children/births should be spaced?	
115	Do you approve use of a modern contraceptive method by your spouse?	1. Yes 2. No 3. Neutral

PART C: Decision-making Power on Family Planning

116. Who makes the decision on the following FP matters?

1. Wife only.
2. Husband only.
3. Wife and husband jointly.
4. Someone else.
5. Wife and someone else.
6. Husband and someone else.

No.		
I.	Use of a modern contraceptive method	
II.	Choice of a modern contraceptive method	
III.	Spacing of children	
IV.	Desired family size/number of children to have	

PART D: Spousal Communication about Family Planning

No.		**YES**	**NO**
117	Have you ever discussed with your spouse about FP? (If no, go to Q119)		
118	Have you had any discussion on FP with your spouse in the past 12 months?		
119	Do you intend to discuss FP with your spouse?		
120	Do you think your spouse will approve use of FP?		
121	Do you know the number of children your spouse want? (If yes, go to Q122).		
122	How many children do your spouse want?		

PART E: Use of a Modern Contraceptive Method

123	Are you currently using any modern contraceptive method to delay or avoid pregnancy?	1. Yes 2. No ⟶ Go to Q 125
124	What modern contraceptive method are you using?	1. Pill 2. Injectable 3. Implant 4. IUD/coil 5. Female sterilization 6. Male sterilization 7. Condom 8. Don't know
125	Do you intend to use any modern contraceptive method anytime soon?	1. Yes 2. No ⟶ Go to Q127 3. Not sure
126	When do you intend/plan to go to a family planning clinic or any other place to obtain a modern contraceptive method?	1. In the next few days 2. In the next few weeks 3. In the next few months 4. I don't know

127	Is there any reason why you are not currently using; and you have no intention/plan of using a modern contraceptive method? (Do not read the answers probe only). (End of interview).	1. Fear of side effects 2. Fear of permanent sterility 3. Lack of knowledge on FP 4. My spouse doesn't approve 5. My friends and/or relatives don't approve 6. Long distance to FP clinic 7. Lack of finances 8. Others (specify).....

KIENZO

KIENZO I: HABARI YA MSHIRIKI

Karatasi ya Habari

Jina langu ni……; Niko hapa kukusanya data kuhusu mahusiano ya ndoa ambayo yanaweza kushawishi utumiaji wa njia za kisasa za kupanga uzazi kati ya wenzi wa ndoa wanaohudhuria kliniki ya kuchanja watoto katika Hospitali ya Kaunti ya Webuye. Mambo yatakayoangaziwa ni pamoja na: vile wanandoa wanakubaliana kuhusu upangaji uzazi, uwezo wa kufanya maamuzi ya upangaji uzazi, vile wanandoa wanawasiliana kuhusu upangaji uzazi, hali za kijamii na kiuchumi miongoni mwa mengine. Hakuna hatari au shida yoyote inayotarajiwa katika utafiti huu kwa ushiriki wako. Kwa kushiriki katika utafiti huu, inatarajiwa kuwa utakuwa na nafasi ya kujadili jinsi wewe na mwenzi wako mnawasiliana, mnakubaliana na venye mnafanya maamuzi kuhusu upangaji uzazi.

Mnamo mwaka wa 2015, kulikuwa na makisio ya wanawake milioni 214 wa umri wa kuzaa katika nchi zinazoendelea wanaotaka kutumia lakini hawatumii njia yoyote ya kisasa ya kupanga uzazi. Ikiwa hitaji hili la kutaka kutumia njia ya upangaji uzazi lingetimizwa, hadi theluthi moja ya vifo vya akina mama 47,000 vinavyotokea katika nchi hizi zinazoendelea ikiwamo Kenya, zinaweza kuepukwa. Karibu akina mama 5 500 ambao wanafariki nchini Kenya kila mwaka kwa sababu ya shida zinazohusiana na ujauzito na kuzaa wanaweza kuokolewa na matumizi ya kisasa ya upangaji uzazi. Mnamo mwaka wa 2014, matumizi ya njia za kisasa za kupanga uzazi nchini Kenya zilikuwa zaidi kwa wanawake wasioolewa (asilimia 61) kuliko wanawake walioolewa (asilimia 53.2). Ndo maana kuna haja ya kufanya utafiti huu kuhusu mahusiano ya wanandoa yanoyoshawishi utumiaji wa njia za

kisasa za upangaji uzazi miongoni mwa wanandoa, kwa maana kupanga uzazi sio suala la wanawake tu bali huathiriwa na uhusiano wa wanandoa.

Utafiti huu unafanyika katika kliniki ya Kuchanja watoto ya Hospitali ya Kaunti ya Webuye kwa wanandoa 271. Wateja waliochaguliwa kushiriki katika utafiti lakini wanaokuja kwenye kliniki ya kuchanja watoto bila wenzi wao wataulizwa kuleta wenzi wao kwa mahojiano baadaye tarehe na mahali itakayo wafaa. Kuweka saini kwenye hati ya makubaliano ya kudhibitisha unafahamu utafiti unahusu nini na kwamba uko tayari kuhusika katika huu utafiti itakuwa hitaji kwa wanandoa wanaopenda kushiriki katika utafiti. Ikiwa uko tayari kushiriki katika utafiti huu, utahojiwa kuhusu hali yako ya kijamii na kiuchumi. Pia utahojiwa kuhusu jinsi wewe na mwenzi wako mnajadili au kuwasiliana, venye mnakubaliana na kufanya uamuzi kuhusu upangaji uzazi.

Utafiti huu unaangazia wanandoa ambao wameoa au kuolewa kwa angalau mwaka mmoja na ambao angalau wana mtoto mmoja aliye hai; na ambao wameleta watoto wao kupokea chanjo ya kuzuia ukambi katika kliniki ya kuchanja watoto ya Hospitali ya Kaunti ya Webuye. Mabibi lazima wawe na umri kati ya miaka 18-49 ilihali mabwana lazima wawe na umri wa miaka 18 na zaidi. Washiriki wa utafiti huu lazima wawe tayari kutoa habari ya kweli. Wanapaswa pia kuwa tayari kusaini fomu ya idhini iliyo na habari. Utaulizwa maswali na mhojiwa kwa kutumia dodoso. Ushiriki wako katika utafiti huu utadumu kama dakika 20-30.

Kusudi kuu la utafiti huu ni kuangalia umuhimu wa mahusiano ya wanandoa katika kushawishi matumizi ya kisasa ya kupanga uzazi miongoni mwa wanandoa wanaohudhuria kliniki ya kuchanja watoto katika Hospitali ya Kaunti ya Webuye. Ni matumaini yetu kuwa

matokeo ya utafiti huu yatakuwa na faida kwa watu wengine katika siku zijazo; kwa mfano kwa kubuni mikakati halisi inayoweza kuchangia kuongezeka kwa utumiaji wa njia za kisasa za kupanga uzazi. Kuongezeka kwa matumizi ya njia za kisasa za kupanga uzazi kunaweza saidia kupunguza mimba zisizotarajiwa na pia kupunguza utoaji mimba usio salama; na hii itapunguza vifo vya akina mama wanapojifungua na pia kupunguza vifo vya watoto.

Hakutakuwa na fidia au pesa zitakazopewa kama motisho ya moja kwa moja kwa ushiriki wako katika utafiti huu.

Habari itakayotolewa wakati wa utafiti huu itabaki kuwa ya siri. Majina ya mshiriki na maelezo mengine yoyote ya kutambua mshiriki hayatajumuishwa kwenye dodoso. Hati yote ya utafiti huu itawekwa siri. Ushiriki wako katika utafiti huu ni wa hiari na uko huru kuruka swali lolote au kukataa kushiriki kabisa wakati wowote ikiwa hauko sawa.

Ikiwa una swali lolote kuhusu utafiti huu, tafadhali usisite kuwasiliana na mtafiti na/au wasaidizi wa utafiti wakiwa pahala pa utafiti. Tafadhali uliza swali lolote unalo sasa; au unaweza kuwasiliana na mtafiti baadaye:

Nambari ya simu ya Mtafiti……..... Barua pepe.....

Nambari ya simu ya Msaidizi wa Utafiti..... Barua pepe.....

Ikiwa una wasiwasi wowote au maswali juu ya haki zako kama mshiriki wa utafiti huu, unaweza kuwasiliana na Kamati ya Tathmini na Maadili ya Taasisi (Institutional Review

and Ethics Committee- IREC) ya Chuo Kikuu cha Moi katika: IREC, jengo la Hospitali ya Kufundisha na Rufaa ya Moi (MTRH building), sakafu ya pili ya orofa, Mlango Nambari 219; Sanduku La Posta 3-30100, Eldoret Kenya; Nambari ya simu ya Ofisi: 0787723677; Barua pepe; irecoffice@gmail.com; Wavuti: irec.or.ke.

Je! Unakubali kushiriki katika utafiti huu?

Ndio…… **La……**

KIENZO II: FOMU YA IDHINI

Hati ya Idhini

Nimealikwa kushiriki katika utafiti wa kuchunguza jukumu la mahusiano ya wanandoa katika kushawishi kutumia njia za kisasa za kupanga uzazi. Nimefahamishwa vizuri kuwa utafiti huu utahusisha mahojiano ambayo naelewa na niko tayari kufanya. Pia nimeelimishwa na nimeaamini kuwa ikiwa nitashiriki katika utafiti huu, hakutakuwa na hatari zozote. Pia ninajua vizuri kuwa ushiriki wangu katika utafiti huu unaweza kuwa hauna faida kwangu kibinafsi. Nimepewa jina na anwani ya mtafiti/watafiti; kwa hivyo nikiwahitaji naweza kuwasiliana nao kwa urahisi.

Nimesoma habari iliyotangulia. Nimepewa nafasi ya kuuliza maswali ambayo yamejibiwa na nimeridhika. Nakubali kwa hiari kushiriki kama mshiriki katika utafiti huu. Ninajua vizuri kuwa nina haki ya kujiondoa kwa utafiti huu wakati wowote.

Jina la mshiriki…….....

Saini ya mshiriki…… Tarehe.....

Nimesoma au kushuhudia usomaji sahihi wa fomu ya idhini kwa mshiriki mtarajiwa, na mshiriki mtarajiwa amepata nafasi ya kuuliza maswali. Ninathibitisha kwamba mtu huyo ametoa idhini kwa hiari yake.

Jina la mkusanyaji wa data …….....

Saini ya Mtafiti ……..... Tarehe.....

Kama mshiriki hajui kusoma na kuandika:

Nimeshuhudia wakati wote ambao mshiriki mtarajiwa alikuwa anasaini fomu ya idhini baada ya kuelimishwa. Maswali yote mshiriki mtarajiwa alikuwa nayo yamejibiwa; na mshiriki mtarajiwa amekubali kwa hiari yake kushiriki katika utafiti huu.

Jina la shahidi.....

Saini ya shahidi..... Tarehe……...

Nakala ya fomu hii ya idhini itapewa mshiriki.

KIENZO III: DODOSO LA MAHOJIANO

SEHEMU YA A: Asili ya Mhojiwa (Hali za kijamii na kiuchumi)

101	Una miaka mingapi?	1. Mke: 2. Mume:
102	Je! Umewahi kuenda shule?	1. Ndio 2. Hapana ⟶ Nenda kwa Q104
103	Je! Ni kiwango gani cha juu zaidi cha elimu uliyopata?	1. Msingi 2. Sekondari 3. Baada ya sekondari 4. Kingine (taja) ……..... 5. Sijui
104	Kazi yako ni nini?	1. Mwanafunzi 2. Mfanyikazi wa serikali 3. Mfanyikazi ambaye sio wa serikali 4. Mfanyikazi wa kibinafsi 5. Kujiajiri 6. Isiyo na ajira 7. Wengine (taja) ……
105	Wewe na familia yako mnakaa wapi?	1. Vijijini 2. Mjini 3. Nyingine (taja).....
106	Je! Wastani wa mapato yako ya kila mwezi ni wastani gani?	1. Chini ya Kshs. 20,000 2. Kati ya Kshs. 20,000 - 100,000 3. Zaidi ya Kshs 100,000 4. Sijui

SEHEMU YA B: Mahusiano ya Wanandoa na Tabia za Kikira

107	Umekuwa kwa ndoa kwa muda gani?	
108	Una watoto wangapi walio hai?	
109	Je! Unatamani kuwa na watoto zaidi?	1. Ndio 2. La → Nenda Q111 3. Sina uhakika
110	Ungependa kuwa na watoto wangapi zaidi?	
111	Je! Ungependa mtoto wako anayetarajiwa kuzaliwa baadaye kuwa wa jinsia gani?	1. Kijana / kiume 2. Msichana / kike 3. Yoyote (sibagui jinsia yoyote) 4. Sina uhakika
112	Je! Ungependa kuwa na idadi gani inayofaa au bora ya watoto?	
113	Je! Ungependa watoto wa familia yako kuwa wa jinsia gani? (Je! Ungependa familia yako iwe ya watoto wa jinsia gani?)	1. wavulana tu 2. wasichana tu 3. wavulana> Wasichana 4. Wasichana> Wavulana 5. Wavulana = Wasichana 6. Sina uhakika
114	Je! unadhani muda gani ni halisi wa kungoja kabla ya kupata mtoto mwingine?	
115	Je! Unakubaliana na mwenzi wako kutumia njia za kisasa za kupanga uzazi?	1. Ndio 2. Hapana 3. Sijui

SEHEMU YA C: Uwezo wa kufanya Maamuzi ya Kupanga Uzazi

116. Ni nani anayefanya uamuzi juu ya mambo yafuatayo ya upangaji uzazi?

1. Mke tu

2. Mume tu

3. Mke na Mume kwa pamoja

4. Mtu mwingine

5. Mke na mtu mwingine

6. Mume na mtu mwingine.

No.		
I.	Matumizi ya njia ya kisasa ya kupanga uzazi	
II.	Chaguo la njia ya kisasa ya kupanga uzazi	
III.	Muda wa kukaa kabla ya kupata mtoto mwingine	
IV.	Idadi ya watoto mnaostahili kupata	

SEHEMU YA D: Mawasiliano kati ya Wanandoa kuhusu Kupanga Uzazi

No.		**NDIO**	**LA**
117	Je! Umewahi kujadili na mwenzi wako kuhusu kupanga uzazi? (ikiwa hapana nenda Q119)		
118	Je! Umewahi kuwa na mazungumzo yoyote kuhusu kupanga uzazi na mwenzi wako katika miezi 12 iliyopita?		
119	Je! Unakusudia kujadili na mwenzi wako kuhusu kupanga uzazi?		
120	Je! Unafikiria mwenzi wako atakubali au kuruhusu matumizi ya kupanga uzazi?		
121	Je! Unajua idadi ya watoto ambao mwenzi wako anataka? (ikiwa ndio nenda Q122).		
122	Je! Mwenzi wako anataka watoto wangapi?		

SEHEMU YA E: UTUMIAJI WA NJIA YA KISASA YA KUPANGA UZAZI

123	Je! Kwa hivi sasa kuna njia yoyote ya kisasa ya kupanga uzazi unayotumia?	1. Ndio 2. La ⟶ Nenda Q 125
124	Ni njia ipi ya kisasa ya kupanga uzazi unayotumia?	1. Kidonge (pill) 2. Sindano (injectable) 3. Kipandikizi (implant) 4. Kitanzi (IUD) 5. Kufunga kizazi mwanamke (female sterilization/BTL) 6. Kufunga kizazi mwanamme (male sterilization/vasectomy) 7. Kondomu (condom) 8. Sijui
125	Je! Una mpango wa kutumia njia yoyote ya kisasa ya kupanga uzazi hivi karibuni?	1. Ndio 2. La ⟶ Nenda Q 127 3. Sina uhakika
126	Je! Unapanga kwenda lini kliniki ya kupanga uzazi; ama mahala pengine	1. Katika siku chache zijazo

	popote, kwa minajili ya kujishindia njia ya kisasa ya kupanga uzazi?	2. Katika wiki chache zijazo 3. Katika miezi chache zijazo 4. Sijui
127	Je! Kuna sababu yoyote inayokufanya wewe usitumie na usikuwe na mpango wa kutumia njia ya kisasa ya kupanga uzazi? (Usisome majibu, uliza tu). (Mwisho wa mahojiano).	1. Kuogopa madhara 2. Kuogopa kuwa tasa 3. Kutojua njia za kupanga uzazi 4. Mwenzi wangu haruhusu 5. Marafiki na/au familia hawakubali 6. Kliniki ya kupanga uzazi iko mbali 7. Kokosa fedha 8. Nyingine (taja).....

APPENDIX VI: BUDGET

Estimated budget

NO.	ITEMS	QUANTITY	COST PER UNIT KSHS	TOTAL KSHS
	STATIONERY AND EQUIPMENT			
1.	Pens	5	20	100
2.	Foolscap	2 reams	400	800
3.	Printing papers	5 reams	400	2,000
4.	Ball points	1 packet	20	400
5.	Pencils	3	15	45
6.	Erasers	3	5	15
7.	Notebooks	10	50	500
8.	Pocket files	5	40	200
9.	Staples	1	300	300
	RESEARCH PROPOSAL DEVELOPMENT			
10.	Printing of proposal draft	8 copies	500 per copy	4,000
11.	Printing final proposal	7 copies	500 per copy	3,500
12.	Binding research proposal	7 copies	150	1,050
	THESIS DEVELOPMENT			
13.	Printing of thesis draft	8 copies	1,000 per copy	8,000
14.	Binding thesis (hard copy)	7 copies	400 per copy	2,800

15.	Photocopy schedule and consent	200 pages	5 per page	1,000
	FIELDWORK			
16.	Travelling expenses	-	-	40,000
17.	Research Assistants	2 people	30,000 per person	60,000
	COMMUNICATION			
18.	Phone, email, and internet searches	-	-	30,000
19.	Consultancy (statistician)	-	-	40,000
20	Dissemination costs	-	-	15,000
	GRAND TOTAL			**209,710**

The budget was funded by the researcher.

APPENDIX VII: WORK PLAN

WORK PLAN								
YEAR	**2020-2021**					**2022-2023**		
MONTH	01-03	11-12	01	02-09	10-12	01-08	09-12	01-05
Approval by IREC								
Sensitization of the CHC staff								
Training of Research Assistants								
Pilot study								
Data collection								
Data entry and Analysis								
Thesis Report writing								
Manuscript for publication								
Defense								