

**DETERMINANTS OF CONTRACEPTIVES USE AMONG WOMEN OF
REPRODUCTIVE AGE IN NAMBALE SUB-COUNTY, BUSIA COUNTY, KENYA**

BY

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DECLARATION

I declare that the work contained in this thesis is my original work and has not been submitted for the award of a degree at any other institution of higher learning.

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DEDICATION

This thesis is dedicated to The Almighty God, my family, my loving mother, friends, colleagues and Maseno University fraternity who made the whole process of research easy.

ABSTRACT

Use of contraceptives allow people to attain their desired number of children and determine the spacing of children. Contraceptives use and unmet need for contraceptives are key to understanding profound changes in fertility and to improving reproductive health. In Africa, 24.2% of women of reproductive age have an unmet need for modern contraception. Contraceptive prevalence according to WHO is the percentage of women who are currently using, or whose sexual partner is currently using, at least one method of contraception regardless of the method used, usually reported in married or in-union women aged 15-49. Nambale's contraceptives prevalence rate is at 39% compared to 58% national average, despite continuous implementation of family planning campaigns by NGOs and the government of Kenya. The main objective of the study was to explore the determinants of contraceptives use among women of reproductive age (15-49 years) in Nambale Sub-County, Busia County, Kenya. The specific objectives included assessing the knowledge of women on contraceptives use, the social cultural factors affecting use of contraceptives among women of reproductive age, economic factors affecting use of contraceptives and the health systems factors affecting contraceptives use among women of reproductive age. A cross sectional study design was used. The study population comprised women of reproductive age (15-49 years) with a sample size of 371 women. Simple stratified sampling technique was used to obtain samples in each of the study sub-locations and households were sampled randomly where one woman of reproductive age was selected from each household. Quantitative data was collected using interviewer administered semi – structured questionnaires, whereas qualitative data was collected using Key informant interview and Focus Group Discussion guides. Data was analyzed using descriptive statistics for categorical data and median for continuous data. Pearson's chi-square test was used to reveal significant associations between contraceptive use and the following variables; Education level, religion, age, ever given birth, spousal approval and regression models 95% confidence interval to calculate the odds of contraceptives usage. Qualitative data was analyzed through thematic analysis. Results revealed that women's age, education level and total number of children were significant predictors of contraceptive use ($X^2(6) = 22.70, p < 0.001$). Older women were 0.95 times more likely to use contraceptives (95% C.I; 0.919-0.991, p-value = 0.015); women who had ever attended school were 0.10 times more likely to use contraceptives (95% C.I; 0.020-0.529, p-value = 0.006); and all the women who had at least one child were 0.35 times more likely to use contraceptives when compared to those who had none (95% C.I; 0.141- 0.875, p-value = 0.025). Additionally, health system related factors such as frequent stock outs, fear of side effects and health concerns, lack of privacy at the facility and harshness/ bad attitude among the health workers discouraged uptake of contraceptives and consequently, increase in discontinuation rates. Findings from this study may be used to advise policy review on promotion of male engagement in family planning, capacity building of health workers and addressing the gap in supply of family contraceptive commodities.

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LIST OF ABBREVIATIONS/ACRONYMS

AIDS	Acquired Immuno-Deficiency Syndrome
CPR	Contraceptive Prevalence Rate
FP	Family Planning
HDI	Human Development Index
ICPD	International Conference on Population and Development
KDHS	Kenya Demographic Health Survey
KDP	Kenya Demographics Profile
KPC	Kenya Populations council
NCPD	National Council for Population and Development
NRHS	National Reproductive Health Strategy
RH	Reproductive Health
SDG	Sustainable Development Goal
STI	Sexually Transmitted Infections
TB	Tuberculosis
TFR	Total Fertility rate
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
WDI	World Development Indicators
WFS	World Fertility Survey

OPERATIONAL DEFINITION OF TERMS

Contraceptives - Drugs or agents, sexual practices, or surgical procedures intended to prevent pregnancy by interfering with the normal process of ovulation, fertilization, and implantation.

Family planning - Planning when to have children and use of birth control and other techniques to control the timing of pregnancy or limit the number of children one may want to have

Index woman - Pointer of woman in reference

Contraceptives Prevalence Rate - Percentage of women who are currently using or whose sexual partner is currently using at least one method of contraception, usually reported for married or in-union women aged 15-49 years' old

Unmet need for contraceptives - A percent of women of reproductive age either in union or married who desire to stop or delay child bearing but are not using any method of contraception

Fertility - Ability to conceive and have babies

Sustainable Development Goals - The world's time-bound and quantified targets for addressing extreme poverty in its many dimensions- income poverty, hunger, disease, lack of adequate shelter and exclusion while promoting gender equality, education and environmental sustainability

Total Fertility Rate - The average number of live births a woman would have in her lifetime

Women of reproductive age - Women between the age of 15 and 49 years who are at risk of getting pregnant if not on any contraceptives; child bearing age of women.

Health system factors - Health care infrastructure and resourcing (fiscal, human, facilities, sites, equipment), education of health workers and workforce trends, social determinants of health

Social cultural and economic factors - Interlink of forces within beliefs and preferences of communities and factors such as income, housing, transportation, social support

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CHAPTER ONE

INTRODUCTION

1.1 Background Information

Contraceptives refers to various drugs or substances that prevent pregnancy by interfering with the normal process of ovulation, fertilization and implantation (Bayer Pakistan, 2015). The main contraceptives methods available include the pill, injectable, Intra-uterine device, hormonal implants, barrier methods (condom, diaphragm, cervical cap, spermicides and sponges), sterilization and natural family planning (Dr. Mary Hading, 2017). Research has shown that 214 million women of reproductive age in developing countries who want to avoid pregnancy are not using a modern contraceptive method. Each year, approximately 210 million women around the world become pregnant among which 36% are unplanned and / or unwanted (Adeyemi et al., 2015).

Contraceptives prevalence was already high in developed countries in 1960-1965 (67%) and it remained high over time at 69% in 2005 and 67% in 2011 (United Nations, 2011). Developing countries are characterized by rapid population growth, which is usually due to high fertility, high birth rates and low contraceptives use. The low contraceptives use in Sub- Saharan Africa is attributed to low acceptance and cultural resistance to family planning. The social, financial and strong kingship values attached to children in the region are also believed to influence the use of contraceptives. Promotion of contraceptives use in countries with high birth rates has the potential of reducing poverty, hunger while at the same time averting 32% of all maternal deaths and nearly 10% of child mortality, unintended pregnancy poses a major challenge to reproductive health. Cultural beliefs have prevented young people from accessing information on

sexuality, therefore making them face trauma of unwanted pregnancies, sexually transmitted infections thus making wrong decisions about contraceptives (Ziyani and Ehlers, 2010).

Accessibility to contraceptive methods is limited in Sub Saharan Africa than the average CPR, approximately 27%, less than half throughout the world (Bisika et al., 2010). Attitudes of healthcare providers has contributed to non-use of contraceptives among older women and adolescents since they are ridiculed despite them having information about contraceptives. This is contrary to the universal declaration of human rights which states that women and adolescents have the right to highest attainable standard of health, the right to decide the number and spacing of children, the right to privacy, the right to information and the right to available, acceptable and good quality contraceptive information and services

Kenyan population growth is unsustainably high given the economic growth in vision 2030 and its socio-economic and political implications. According to NCPB 2012, the government of Kenya plans to promote a policy requiring women to have only two children over their reproductive age of between 15 to 49 years and to achieve a goal of reaching a 56% modern contraceptives prevalence rate by 2015 from 46%. In Kenya, contraceptives use is not openly discussed among unmarried or even some married women due to cultural and religious beliefs thus subjecting them to unwanted pregnancies. Knowledge and attitude about sexual and reproductive health as well as access to information may influence contraceptives use. More than half a million women in developing countries die. Another million suffers from pregnancy related injuries (Kenya Development Plan, 2014). Much of this suffering and death could be prevented through effective family planning engendered by use of modern contraception. Some

contraceptive methods such as condom help prevent transmission of sexually transmitted infections. Contraception reduces the need for abortion especially unsafe abortion. In addition, contraception reinforces people's rights to determine the number and spacing of their children. By preventing unintended pregnancy, contraception prevents deaths of mothers and children.

According to the Kenya Demographic Health survey 2019, the average national Total Fertility Rate was at 3.4 births per woman while Contraceptives Prevalence Rate is 58%. Contraceptives use in Kenya and especially rural Kenya is low and the unmet need for contraceptive use is among the highest in the world (Khan et al., 2012). An unmet need for contraception refers to women capable of reproducing who are not using contraception but wish to postpone the next birth for two or more years or stop child bearing all together (UBOS and IFC International Inc., 2012). Furthermore, 44% of pregnancies are unplanned (Guttmacher institute, 2012) and spacing between pregnancies is poor which is associated with an increased risk of infant mortality, childhood malnutrition and complications during pregnancy (Gribble et al., 2008; Rutstein 2012, 2011). One important step in addressing the unmet need for contraceptive use in Kenya is to explore factors that influence women wanting to delay their next pregnancy to use contraceptives. Within a huge literature, this study provided a sub county level regression analysis in Nambale and contributes to the debate on determinants of contraceptives use at country level (Kenya Development Plan, 2014).

1.2 Statement of the Problem

Nationally, contraceptive prevalence rate has increased from 7% in 1978 to 58% in 2019. Busia's contraceptives prevalence rate is at 41% while Nambale stands at 39 % way below the national

average. Other sub counties neighboring has CPRs as follows: Butula (40.3%), Teso South (42%) Teso North (39.2%) and Matayos (40.6%). According to the last 3 KDHS of 2008 and 2014, 2019 contraceptive discontinuation rate was at 36%, 31% and 43.7%. There also still exist wide variations and slow pace of uptake of contraceptives over years (Munshi and Myaux, 2010). Nonuse and contraceptives abandonment have been a major contributing factor to the slow pace in uptake. This means then that there is an unmet need for contraceptives use, which stands at 14% (KNBS, 2019). Unintended pregnancy (43%) and unsafe abortion are common in Kenya (KNBS and ICF Marco, 2019). This mostly occur among women using no contraception or a traditional method. Nambale's unwanted pregnancy rate is at 59% high above the national average leading to school dropout (13,000 every year), unsafe pregnancy termination which contribute immensely on maternal mortality (488 deaths per 100,000 live births). 14% of all unwanted pregnancies lead to abortion leading to maternal related complications such as eclampsia, hemorrhage, infections and death. These are major impediments to safe motherhood and general performance of reproductive, maternal neonatal and child health. If all unmet need (29%) for contraceptives compared to 14% national average could be averted, negative health outcomes such as cervical cancer, HIV/ AIDs and other STIs, pre-term and low birth weight (LBW) births and death could be prevented, as well as meet women's educational and workforce achievements. As a case study, the research examined a densely populated Sub County where contraceptives prevalence rate is low (39%) below the national average (58%), thus aggravating poverty by producing a high ratio of dependent children for each working adult. This would at the same time, intensify the utilization of contraceptives among these women to bring them in line with the rest of the parts of the country and according to the demographic indicators, as a solution.

1.3 Objectives

1.3.1 Broad Objective

To establish the determinants of contraceptives, use among women of reproductive age (15-49 years) in Nambale Sub-county, Busia County, Kenya

1.3.2 Specific Objectives

1. To assess knowledge and attitude on use of contraceptives among women of reproductive age (15-49 years) in Nambale Sub-county, Busia County, Kenya.
2. To assess the socio-cultural factors influencing use of contraceptives among women of reproductive age (15-49 years) in Nambale Sub- county, Busia County, Kenya.
3. To assess the economic factors influencing use of contraceptives among women of reproductive age (15-49 years) in Nambale Sub- County, Busia County, Kenya.
4. To determine the health system factors influencing use of contraceptives among women of reproductive age (15-49 years) in Nambale Sub County, Busia County, Kenya.

1.4 Research Questions

1. What was the knowledge and attitude on use of contraceptives among women of reproductive age (15-49 years) in Nambale Sub-county, Busia County, Kenya?
2. What were the socio-cultural factors influencing use of contraceptives among women of reproductive age (15-49 years) in Nambale Sub- County, Busia County, Kenya?
3. What are the economic influencing use of contraceptives among women of reproductive age (15-49 years) in Nambale Sub- County, Busia County, Kenya?
4. What were the health system factors influencing use of contraceptives among women of reproductive age (15-49 years) in Nambale Sub County, Busia County, Kenya?

1.5 Justification of the Study

Studies to determine factors affecting use of contraceptives among women of reproductive age (15-49 years) have been conducted in so many places in Asia, Latin America and areas of the Sub-Saharan Africa. Review of related literature shows that despite the fact that there have been increase in Contraceptives Prevalence Rate (CPR) and decline in Total Fertility Rate (TFR) among women of reproductive age, Nambale still has a higher fertility rate of 4.6 births per woman (KNBS Census Report, 2014) as compared to the national average of 3.4 births per woman and a lower CPR (39%) compared to 58% national average (KNBS and ICF Marco, 2019). Investigating more on determinants of contraceptive use among women of reproductive age; is fundamental for service providers, programme planners, policy makers in realizing increased uptake of contraceptives in order to realize the desired impact of contraceptives practice on unwanted fertility lowered health risks. In addition, this study provided information and awareness on sexual and reproductive health matters that address issues such as unmet need for contraception to reduce maternal morbidities and deaths, neonatal morbidities and deaths as health benefits of contraceptives use. It was envisaged that these would encourage social modernization, specifically contraceptives use. Therefore, there is need to review policies and practices regarding reproductive health and sexuality. This may form the basis for influencing policy makers to design strategies to increase contraceptives use and lower fertility levels or any other mechanisms preferred among women in order to encourage small family norms thus helping to reduce population expansion problems to enhance further economic development.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Current reports on global contraceptive prevalence rates and unmet need for family planning indicate overall gains across countries. Despite the overall gains, indicators of slow progress in contraceptive use and reduction in unmet needs or family planning are evident in some Sub Saharan African countries. The coverage of contraceptives in eastern Africa stands at 40% and is expected to grow to 55% (Obwoya et al., 2018). In societies where ethnic identities are very strong like they are in Africa, reproductive outcomes also tend to follow certain ethnic patterns, i.e., arising from cultural values and behavior regarding fertility.

The average total fertility rate in Africa in 2010 exceeded 5.1 births per woman was more than double the levels observed in Asia and Latin America, (Gujarati, 2010). The highest estimated unmet need for contraceptives (25%) and the lowest rate of modern contraceptive use among women of reproductive age (Cleland et al., 2011; UNICEF 2008). About 39% of all pregnancies in the region (Africa) are unintended which rises to about 50% of adolescent pregnancies (Singh et al., 2009; Guttmacher, 2010). Consequently, contraceptive use is poorly accepted in these societies.

Wawire et al., (2011) sought to examine the determinants of use contraceptive services in city slums in Kenya. Primary data were collected from the women using a structured interview schedule questionnaire. A binomial logit model was developed and estimated using two-step regression procedures. The results revealed that the use of family planning was low among women living in the slums. Factors that were found to determine the use of contraceptives included; Attitude and exposure to contraceptive services, partner's approval, religious

background, economic status of families, cultural factors, friendliness of the staff administering the services, skills and quality of the services and proximity to the health facilities. The theoretical framework is included comprising ideation theory, economic theory, health belief model and Easterlin's supply and demand theory on which the study was designed.

2.2 Knowledge and attitude on Contraceptives Use among women of reproductive age

Population policies that include factors that are commonly associated with fertility decline, such as education, urbanization, improved status of women, employment opportunities for women and increased practice of family planning all contribute to fertility differentials within developed and developing countries and within communities. Beekle et al., (2006) carried out a study to determine the levels and determinants of family planning awareness and practice in a town in Ethiopia. A quantitative study using descriptive survey design was conducted. The findings revealed that the knowledge and practice of modern contraception methods was low in that town. The results also showed that women's contraceptive knowledge and practice was influenced by socio-cultural norms such as husband dominance, disapproval of contraceptive use by the husband and low social status of women. Lack of formal education for women was also identified as key factor in preventing changes in the patterns of contraceptive knowledge and use.

Abiodun and Balogun (2009) carried out a study to determine the pattern of sexual behavior and contraceptive use among female students attending tertiary institutions in Nigeria. Data collected from self-administered and semi-structured questionnaires were used in the study. The findings of the study showed that although all the respondents were aware of contraceptives, only a

quarter of them admitted having ever used any contraceptive method. Friends/relatives were identified to be the most common source of information about contraceptives. Moreover, fear of side effects was identified as the reason for non-use of modern contraceptives.

The first and most obvious step toward addressing low contraceptives use is to implement family planning programs to provide women with contraceptive access and information. The level of unmet need for contraceptives is high throughout African region and large numbers of unintended pregnancies occur. Preventing these pregnancies would benefit women, their families and society (UNFPA, 2011). The key missing factor seems to be secondary education, which only minority in rural Kenya have completed. In a nutshell, data show that the higher the level of a woman's educational attainment, the fewer the children she is likely to bear. A negative correlation is most clearly seen between different levels of female education and total fertility rate (TFR) in a population (KDHS, 1988-2014). However, evidence clearly supports the causal role of female education in fertility decline. For example, an education reform in Kenya that increased the length of primary education by a year resulted in increased female education attainment, and delayed marriage and fertility. One randomized control trial found that reducing the cost of school uniforms in Kenya not only reduced dropout rates, but also reduced teenage marriage and childbearing (Elina Pradhan, 2010).

According to Nalwadda, (2012) in a study done in Uganda, there was a positive and independent association between formal education and utilization of contraceptive. The study further reported that there were higher odds ratio on utilization of contraceptive among secondary educated women who reside in urban areas than women with no formal education. In rural areas, there is

more striking education effect; in comparison with women without formal education, ten times odd and five times odds of contraceptive utilization was achieved among women who had secondary schooling or higher and least some primary schooling respectively (Sileo, 2014).

According to the ideation theory, women that are more educated may learn different ideas of desired family size through school, community, and exposure to global communication networks. Finally, women that are more educated know more about prenatal care and child health hence might have lower fertility because of greater confidence that their children will survive. Female education has a greater impact on age of marriage and delayed fertility than male education. Although, fertility falls when both male and female levels of education fall when both male and female education rise together, there is a large gap between male and female secondary school enrolment in Kenya.

A study done by Guttmacher (2006) revealed that education differential between husbands and wives in Nepal may influence the choice of specific methods. Although the wife's education level was associated with the type of method used by the couple, the husband's education level had more influence on the use of male sterilization and condoms. For example, men with any secondary or higher education were more likely than those with none to rely on either of these methods (relative risk ratios, 1.6-2.1). Achieving gender parity in educational attainment could thus have a substantial effect on fertility rates (Elina Pradhan, 2010). Therefore, education promotes the use of contraceptives as well as encouraging termination of a pregnancy if unwanted. Educated women tend to marry later, have fewer children and use contraceptives more (Caldwell & Caldwell, 2014). A study by Casterline (2013) reveals a significant

relationship between a woman's level of education and contraceptives use. Schooling by women is an indicator of socio-economic development and the variable is negatively associated with infant mortality, thus reducing the overall demand for children (Addai, 2012).

Because vulnerable populations are generally more isolated, poorer and less literate, they are less likely to be exposed to many of the demand generation interventions such as raising awareness on contraceptives use through entertainment programs such as radio and TV dramas (Ortayli & Malarcher, 2010). Moreover, the relevance or perceived relevance, of these messages may be particularly low for vulnerable populations, for example, married girls. The extent to which vulnerable populations are reached by these types of interventions and the extent to which these interventions have an effect on such populations remain under researched on. Social marketing organizations are often required to report on the extent to which their campaigns reach the poorest and the most vulnerable populations, and such analyses should be integral to the design and evaluation of future demand generation interventions.

Reducing the unmet need is the primary goal of FP2020. Focusing on reducing unmet need implicitly assumes that a demand for FP already exists and is being partially met. However, awareness, knowledge of contraceptive technologies and how to obtain them is often incomplete and inaccurate. Thus, unfounded concerns regarding the side effects are widespread, contributing to personal and partner opposition to contraception (Darroch et al., 2011). Strategic communication strategies (Bongaarts et al., 2012) are therefore still needed within FP2020 framework, especially for populations without them (rural and vulnerable populations). Full awareness of the range of contraceptive alternatives available, how they function and how to

access them is key. The evidence base regarding interventions tailored to address method-related concerns is thin. However, it is also realized that no data in Nambale is available to explain how education level among women influences contraceptives uptake, enough to influence policy makers to design strategies to influence desired family size.

Several theoretical models on health behaviour such as the Health Belief Model and the Health Promotion Model, have been developed (Becker, 1974). These models have been applied and tested with regard to the use of contraception. Several studies (Boohene et al., 2011; Bongaarts & Johansson, 2010) have shown a significant relationship between attitude and contraceptive intention and behaviour. Considering the value of the attitude/belief behaviour relationship and its relevance to preventive strategies like sexual and reproductive health services, it is considered of importance to explore some beliefs of young women in Namibia regarding contraception by adapting some ideas from the Health Belief Model and Easterlin's supply and demand theory (Easterlin, 1975) of fertility regulation.

Kinaro (2012) sought to examine attitudes of the community that affect the use of contraceptives among Adolescents in Nairobi County. The study used primary data from household survey collected using a systematic random sampling in eight administrative divisions in Nairobi County in 2010. The study-utilized information collected using structured interviews, focus group discussions (FGDs) and in-depth interviews (IDIs). The findings revealed that parental approval, adolescent approval, ability to get contraceptives for self, knowledge of how to use contraceptives and sexual partner communication had significant effect on the use of contraceptives. It was also noted that parents, teachers and service providers had negative

attitude and discouraged contraceptive use among adolescents which influences use. Moreover, it was established that parents and teachers had inadequate knowledge and skills to communicate about sexuality to creating an environment that was likely to indirect negative influence on adolescents' attitude on contraception

2.3 Social, Economic and Cultural Factors Influencing Contraceptives Use

The literature reviewed suggest that the traditional culture and social structure made the notion of controlling fertility foreign and alien. Patriarchal structures and stereotyped notions of gender hide the increasing disempowerment of many men in rural and urban East Africa. Socioeconomic change has left men with a patriarchal ideology bereft of its legitimizing activities. Unemployment or low incomes prevent men from fulfilling their male roles as head of household and breadwinner. Women's roles and responsibilities have increased. This affects men's social value, identity and self-esteem (Ian et al., 2013). Multi-partnered sexual relationships and sexually aggressive behavior seem to strengthen male identity and sense of masculinity (Westoff and Cross-, 2010).

According to traditional African culture, children were highly valued and desired irrespective of their gender as both sexes fill a very crucial gap in the social and cultural life of a family. The religious people believed that the sex of the child does not matter because it is a gift from God and a blessing to the family. Couples with many children were respected; having many children was considered as insurance against the high child mortality prevalent in any given area. African people also believed that children represented not only heritage of their descendants but were an asset for the parents at their old age. In most traditional cultures, African men were polygamous

and could marry up to four wives in order to form large numbers of children (Westoff and Cross-
, 2010).

Child spacing was strongly believed to help mothers regain their strength after delivery. Other reasons for this were related to child welfare; as lactating babies usually got sick and died when their mothers got pregnant before weaning them. There was also the cultural belief that successive and frequent pregnancies led to death of the lactating mothers or the infants or both of them.

In many communities, women first married when in their teens. Widespread practice of child-spacing did not allow women to have as many children as they would have liked, so, to offset this, many women in these communities continued to have children well into their late-forties or even early fifties. Only menopause or ill health prevented a woman from having children. Ill health was another factor in taking the decision to use contraception (Orvis, 2012).

Before the introduction of modern methods of contraception, Africans had their own methods of fertility regulation. African culture includes many myths, rituals and herbs in attempt to regulate women's fertility, some that have dangerous or counterproductive effects on a woman's health. Nonetheless, many of the traditional methods has remained doubtful.

From the literature reviewed, fertility patterns observed in developing countries can be attributed to the traditional attitudes and cultural values held by communities to favour them to have many children (Mairiga, 2010). Childlessness can be grounds for divorce and full repayment of the dowry in Kenya (Rabia, 2013). According to the terms of most Kenyan marriages, the children that a woman bears guarantee her access to the land she needs in order to meet the family subsistence. Children are also a major source of old-age support to their parents. By continuing

to bear children a woman confirms her status in the marriage, helps secure her continued access to land, and serves the family and lineage interests of her husband as well as ensuring that her own family can keep the dowry that was given for her. Thus, economically and culturally defined and socially enforced obligations on African wives motivate them to have a family of a very large size (Flynn, 2012). In a society that values large families, paternity confers status and prestige, which a man enjoys, and so men would be more inclined to support large families. Conformity to traditional customs that place a high value on children, and the need to guard one's cultural heritage and to perpetuate the family line, transcend national efforts to curb family size in most African countries and other developing countries (Mhloyi, 2011).

From the reviewed literature, it has emerged that a social/psychological atmosphere plays a very important role in determining the desired and acceptable number of children in a family. Family size tends to decline when newly born children are not positively accepted and widely valued by society. A negative valuation is manifested in such a phenomenon as contempt for and ridicule of large families. While the view of Blake (2012) and others is accepted, that demand for children depends on the cultural norms and values of a society. It also depends on the cost of bringing up children and the economic benefits derived from them by couples.

In Nambale, women were responsible for all of the daily work in agriculture; they did the planting, weeding and harvesting as a part of their responsibility for feeding the family. They were also in charge of fetching firewood and water as well as all the other household chores (Bonvillain Nancy, 2010). For these tasks, women relied very much on their children's labor

contribution. More of the tasks that Fertility Transition and Socio-Economic Change in Western Kenya have traditionally been the responsibility of the men are being transferred to women (Ember Carol R. and Melvin Ember, 2011). There is not much information regarding the way the community in Nambale views use of contraceptives in connection with the cultural traditions, socio-economic status and development.

2.4 Economic Factors Affecting Contraceptive Use Among Women of Reproductive Age

Knowledge without necessary access to contraceptives use is useless. Poverty, which refers to a state of absolute and relative lack of necessities of life (Ighedosa, 2015). Poverty in the broadest sense implies a lack of resources for reasonable, comfortable living for it has an impact on several aspects of life (Okoro, 2012). Income has for a long time been used as a measure of overall level of social and economic development of a society. However, empirical studies of the relationship between income and fertility have reached very mixed conclusions (Egboh, 2011).

At the microeconomics level, negative relationships have typically been observed, with low fertility in the richest countries and high fertility in the poorest countries (Simmons, 2014). This implies that there is a relationship between poverty and reproductive health and hence uncontrolled population is particularly evident in less developed countries such as Kenya.

It is obvious that family planning plays a vital role in population growth, poverty reduction and human development (Igbudu, 2011). It is therefore obvious that poverty has an influence on contraceptive use. Centre for disease control (CDC), (2011) notes other obstacles that women face in obtaining contraceptives including transportation to clinics, irrespective of their age,

women who live furthest from health facilities use contraceptives less than those who easily access them (Dickinson et al., 2010; Campbell et al., 2011).

The economic theory of fertility suggests an incentive effect: women that are more educated have higher opportunity costs of bearing children in terms of lost income. The household bargaining mode suggests that women that are more educated are better able to support themselves and have more bargaining power, including on family size (Pradhan and Canning, 2013). Nakirijja, et al., (2019) explained that education might affect the distribution of authority within households, whereby women may increase their authority with husbands, with effect on fertility preference and use of family planning. Similarly, Osmani, et al., (2015) emphasized that education could increase knowledge of fertility, increase socioeconomic status, and change attitudes.

Moreover, Nakirijja et al., (2019) found that the differential of contraceptive practice rate is greater between women who have no education and those who have attended primary school. Substantial differences are also found in the prevalence of contraceptive use between women with some primary education and those with some secondary school or higher education.

In Kenya, education has been shown to be an important determinant of contraceptive use. Central and Nairobi regions, which have the highest contraceptive prevalence, have the lowest proportion of females with no education at about 1 in every 10 compared to Coast and North Eastern regions which have the lowest contraceptive prevalence but the highest proportion of females with no education at one third and over two-thirds of the females respectively (Wanjiku,

2013). A study conducted by Baidoo, (2013) emphasized that education could increase knowledge of fertility, increase socio economic status, and change attitudes. Moreover, Tamang, et al., (2017) found that the differential of contraceptive practice rate is greater between women with no formal education and those who have attended primary school. The finding also found substantial differences in the utilization of contraceptive between women with secondary education and with primary education. In Kenya, education has been shown to be an important determinant of contraceptive use. Central and Nairobi region, which had the highest contraceptive prevalence, had the lowest proportion of females with no education at about 1 in every 10 compared to Coast and North-Eastern region which had the lowest contraceptive prevalence but the highest proportions of females with no education at one-third and over two-thirds of the females respectively (Jalango, 2013).

In developing countries, women mention cost as another factor to access to contraceptives (Campbell et al., 2006; Nalwadda et al., 2011; Bankole and Malarcher, 2010). According to Ocholla (2016), poverty is another factor that has led to high fertility. This in turn creates a high dependency ratio for families living in poor conditions as any money available is spent on basic needs with nothing to invest to improve the economy. Poor people tend to have no other employment other than sexual enjoyment. Therefore, children would be born even those unplanned for. Unlike the rich that have a lot of money to spend on leisure activities other than sex, for example travelling for leisure, enjoying drinks and other entertainment, thus securing transportation for family planning services.

Okezie et al., (2010) examined the socio-economic determinants of contraceptive use among rural women in Ikwano state in Nigeria. The state was purposively selected because it was classified as rural and highly dependent on agriculture. Data was collected through a service questionnaire where 200 women were randomly selected from each of the four clans in the state. Descriptive statistics and maximum likelihood probit regression analysis were used to determine the relationship between the dependent and the explanatory variables. The results showed that mass media messages and higher education level were positively significant in determining the use of contraceptives by women. The results further revealed that the existence of an extended family system negatively influences the use of contraceptives. Employment status is an important determinant of contraceptive utilization among women. Employment, especially where a woman has to work outside the home is viewed as an index of commitment to and involvement in non-familial roles (Sarvestani et al., 2017). Furthermore, women work outside the home regularly prefer a small family size (Nalwadda, 2012). According to study by Lindh, (2011) in Indonesia, it was found that higher acceptance rate of contraceptive utilization was achieved among employed women. Another Indonesian study that concentrated just on the women status and utilization of contraception and found that employed women had a somewhat more elevated utilization rate than non-working women. However, the distinction was not huge, despite the fact that women perceived advantages from uptake of contraceptives (Bader, 2015).

In a study conducted by Bhandari (2013) in India, which revealed that women employment status gives them self-sufficiency that, prompted a wide space birth and use of contraceptives. The probabilities of contraceptive use were higher among independently employed women and women who were workers than those unemployed women. The type of occupation a woman has

was also found to be an important determinant of contraceptive use. Lower fertility was found to be a characteristic of women in professional and technical occupation and women with higher opportunities

National council for population and development (NCPB, 2012) records that Central, Nairobi and Eastern regions have the highest contraceptives prevalence rates and lowest number of poorest people. According to KNBS (2014), contraceptives use in Kenya is clinic based, suggesting that the model of family planning delivery is expensive. This raises doubts as to whether it can be replicated to other regions that are still struggling to increase contraceptives use and reduce fertility such as Nambale. The MOH (2010), in Kenya designated as service delivery points (SDPs) for family planning services are not equitably distributed throughout the country. Investigations by the Government of Kenya (2012), observed that contraceptives services in Western Kenya are free and 93% available. However, the demand for them was low. Modern methods like the emergency pills expire in hospitals since nobody comes for them especially in rural areas since they lack transportation (Republic of Kenya, 2012). Effective contraceptive programs targeted to meet needs of poor populations can reduce the fertility gap between rich and poor people. This can also make a powerful contribution to poverty reduction and boost economic development (Okoro, 2012).

2.5 Health System Factors Affecting Contraceptive Uptake

Improvement in family planning programs calls for expansion of the choice of the method used, providing adequate information, increase in technical competence of providers, increasing interpersonal relations between providers and clients and incorporating adequate client support

and follow up. This is because failure to use existing services is attributed to lack of quality (Magesa, 2014). Investigations by the Government of Kenya, Republic of Kenya (2012) observed that contraceptive services in Western Kenya are free and are about 93 percent available; however, the demand for the products and services was low. Modern methods like emergency pills expire in hospitals since nobody comes for them especially in rural areas. It is realized that high birth rate, high fertility and large unmet need of family planning is most experienced in Western Kenya. Therefore, the Government through the Ministry of Health has taken the initiatives of providing contraceptive services majorly free of charge to help control birth rate in order to achieve the 2030 vision of two (2) children per woman (Mutombo et al., 2014)

There have been myths about misconceptions and fears of side effects especially the IUDs performance from excessive bleeding, weight gain to added cancer risk. News of any complications arising from incompetence in handling the devices can spread easily produce undesired effects among potential adopters (Inaoka et al., 2010). The side effects noted by Inaoka et al., (2010) include nausea, vomiting and weight gain. A study done by Abiodun and Balogun (2009) revealed that the quality of contraceptive services affected their uptake amongst female students attending tertiary institutions.

A Bangladesh study highlighted that women discontinued using injectables because they had wrong information about side effects and their significance due to lack of counselling (DeGraaf, 2011). In Morocco, it was noted that misinformation and fear of side effects reduced access to contraceptives (Westoff & Bankole, 2010). Fear of side effects can be overcome through good

communication and information, especially through community - based distribution programme (Odhiambo, 1999). Myths suggesting that the use of contraceptives lead to cancer or infertility can lead to discontinuation of use of contraceptives (Inaoka et al., 2010). Another study in Ethiopia shows that another reason for discontinuation of contraceptives is the disturbance caused by the menstrual cycle. Weldegerima & Deneke, (2008). Westoff & Cross (2010), in Kenya shows that discontinuation rate rose from 28% in 1998 to 33% in 2003s linked to side effects associated with hormonal methods like pills and injectable. Shane (2010), however discovered that oral contraceptives could protect a woman against pelvic inflammatory disease, ovarian and endometrial cancers, fibroids of the uterus and benign breast disease. Contraceptives also reduce problems associated with menstrual cycle such as pain and cramps (common in adolescents), dysfunctional uterine bleeding, functional ovarian cyst, premenstrual tension syndrome and anemia caused by heavy menstruation. Shane (2010), also observes that consistent and correct use of condoms can prevent infection from sexually transmitted infection including ectopic pregnancy, chronic pelvic pain, infertility (in both sexes), cervical dysplasia and cervical cancer.

More generally, it is usually assumed that substantial fertility decline does not come about due to changes in the spacing of births, lengthening of inter-birth intervals but rather will only occur when there is widespread adoption of behaviors, usually contraception intended to terminate child bearing after a certain number of living Children has been attained (Van De Wale, 2012).

Sustainable provision of family planning could help increase the uptake of the service. Improvement in family planning programmes calls for expansion of choice of the method used, providing adequate information, increase in technical competence of providers, increasing

interpersonal relations between providers and clients and incorporating adequate client support and follow up. This is because failure to use existing services is attributed to lack of quality (Koc, 2010). Most of all, it has continued to benefit any sexually active person who may be at risk of acquiring HIV/AIDs or another STI (Yam et al., 2012), note that health providers should demystify misinformation about contraceptives and instead provide factual information about risks, potential side effects and incorporate it into family planning strategy that meet each client's personal needs. Educational and enlightenment programmes should also focus on providing specific knowledge with special attention to correcting common misconceptions about the methods.

Complications and infections that happen at birth due to inadequate care are the greatest causes of child death, leading to hesitation of women in using contraceptives thinking that the use may lead to childlessness or small families should any of their children die. (Cleland and Bernstein, 2010) note that shorter spacing between births increases chances of fetal death because of non-use of family planning methods, low birth weight, prematurity and infant or child death (NCPD, 2012). Evidence from the literature review points out that reduction in fertility, child and infant mortality rates are critical to record a decline in population growth rate. This is particularly relevant to the study to investigate the impact of infant and child mortality on the utilization of family planning.

Maletela et al., (2004) carried out a study to examine the use of contraceptive services in Lesotho. The study was a two-step process where the decision to use contraceptive was considered first before considering the choice of a contraceptive method. In the first process,

multivariate regression analysis was used to identify the individual and community factors that contribute towards the uptake of contraceptives while multinomial logistic regression was used on current users with the reference category for the dependent variable being injectables. The study identified factors such as ; infrastructure of facilities, time taken to reach the facility, opening hours to cater for working women, government policy regarding uniform pricing of contraceptives and costs in terms of travelling costs to be significant determinants of contraceptive use.

Another study in Kisii, Kenya by Jalango, (2013) reveals that opening the choice of contraceptive methods increased overall contraceptive prevalence and the opportunity for individual couples to obtain a method that suits their needs. Hackert, (2014) also noted that contraceptive method choice in developing countries confirmed that prevalence is highest in countries where access to a wide range of methods is uniformly high. Nalwadda, (2012) found that exposure to mass media at the community was significantly associated with family contraceptive use behaviors in Uganda. The authors hypothesized that mass media facilitates greater inter-personal communication and allows for increased dissemination of information (Nalwadda, 2012). United Nations, (2015) recommended that family planning programs should offer a variety of safe, effective, acceptable and affordable contraceptive methods to help women avoid unwanted pregnancies, sexually transmitted diseases and to help them achieve their childbearing goals. Boamah, (2012) suggested that health-care consultants should provide advice in accordance with international norms and ethics.

2.5 Operational Conceptual Framework

The operational conceptual framework (Figure 2.1) reveals the multiple links between factors that predispose the community to the effects of low use of contraceptives. It outlines these factors and provides a framework that can be used in mitigation in combating low contraceptives uptake in Nambale Sub-County. It is comprised of Independent variables, intervening variables dependent variables. Background factors include socio- demographic factors such as age, marital status, level of education, religion, source of income, household income. The framework illustrates how social cultural factors, Knowledge, attitudes, health systems factors and how they all interlink to influence contraceptives uptake. All these factors in the framework interlinked result in effects of reduced uptake of contraceptives which then leads to increased fertility rate. All these would help design the best strategies in increasing contraceptives uptake and its effects among women of reproductive age in Nambale Sub-County.

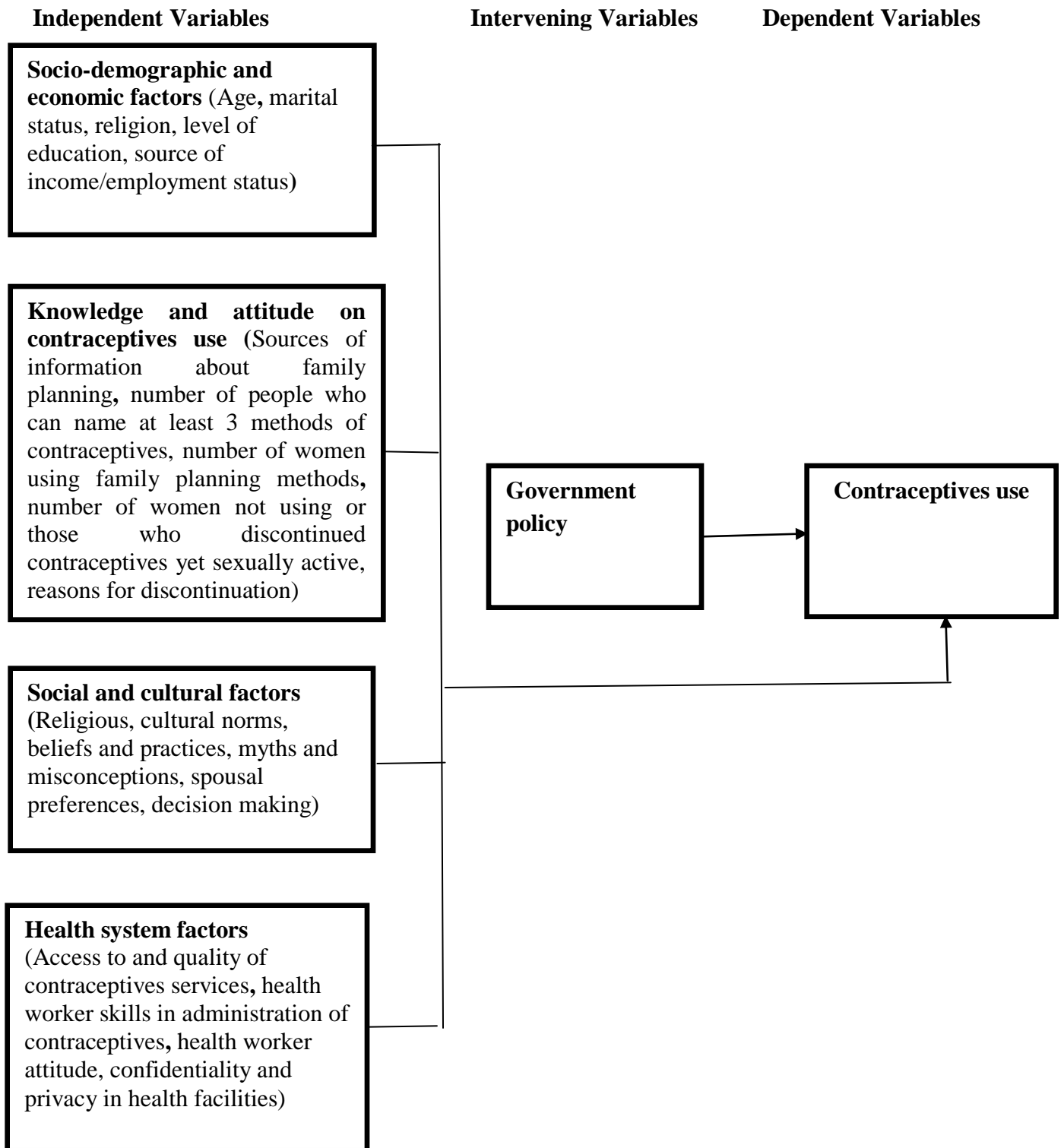


Figure 2.1 Conceptual Framework for determinants of contraceptive use. (Smyth R. (2003))

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Study Area

Nambale Sub county comprises of 4 wards and 14 Community Health Units: Nambale (Nambale, Kisoko, Siekunya), Bukhaya North/ Walatsi, (Kapina, Khwirale, Lupida, musokoto Sub-locations), Bukhaya East ward (Buyofu, Madibo, Mungatsi and Sikinga Sub-locations), Bukhaya central ward (Lwanyange, Malanga and Sidende Sub-locations. The population as per the census for 2019 is 111,636 people and 23,752 households. The high and reliable rainfall supports crops such as maize, beans, finger millet, potatoes, cassava, groundnuts, pig and poultry farming, thus farming is the major economic activity.

3.2 Study Population

This study comprised of women of reproductive age between 15 and 49 years. The population of women of reproductive age in Nambale Sub county is 58,732 (Kenya population census, 2019)

3.2.1 Inclusion Criteria

Women between the ages of 15 to 49 years and who consented to the study were interviewed.

3.2.2 Exclusion Criteria

Women aged 15 to 49 years who have had hysterectomy or women who are on permanent family planning method.

3.3 Study Design

The study adopted a descriptive cross- sectional study design whereby data was collected from the population and analyzed at one specific point in time.

3.4 Sample Size Determination and Sampling Procedures

3.4.1 Sample Size Determination

A household was used as the sampling unit.

The number of households in Nambale is 23,752(population census, 2019) which the sample size was based on. A woman of reproductive age was used as a sampling unit. The sample size was calculated using Fisher et al., (1998) formula as below;

$$n = z^2pq/d^2$$

Where: z = constant value was set at 1.96 z-score corresponding to 95% confidence level,
p =the standard deviation, which denotes how much variance is expected in the responses set at 0.5 as this is the most forgiving number and ensured that I obtained a sample size that was large enough, q = 1-p = 1-0.5 and d as the margin of error or the chance this study was willing to take in not capturing the population parameters in the study estimates, usually 0.05. It is also called the alpha value. This value is given at 95% confidence level.

$$\text{Therefore, } n \text{ (sample size)} = 1.96^2 * 0.5 * 0.5 / 0.05^2 = 0.9604 / 0.0025$$

$$= 384.16$$

n= 384 with expectation of an non response rate of > <5% (+20)

Table 3.1: Number of women that were planned to be studied in each sub-location (Kenya Population Census, 2019)

Name sub location	Population	Number of women	of Sampled women
Nambale	44,726	23,348	122(32%)
Kapina	15,028	7,844	70 (18%)
Musokoto	16,558	8,642	65 (17%)
Mungatsi	16,293	9,840	73 (19%)
Malanga	17,350	9,056	53 (14%)
Total	111,636	58,732	384 (100%)

3.4.2 Sampling Procedure

The study utilized different probability sampling techniques where every woman of reproductive age had an equal opportunity of participating in the study.

The number of women sampled for the study was 384. Systematic sampling was used to select the sub-locations whereby every third Sub location was selected giving a representation of the entire sub-county. A sample of 5 sub locations (Nambale, Kapina, Musokoto, Mungatsi and Malanga) were studied. Stratified sampling technique was used to select the number of women to be interviewed in each Sub location for each stratum. At the Sub location level (community unit), simple random sampling was used to select the households where every woman of reproductive age had an equal chance of being selected thus minimizing bias.

3.5 Data Collection Instruments

3.5.1 Questionnaire

A questionnaire made up of both closed and open-ended questions was administered (appendix). The questionnaire yielded information on background information, socio-cultural, behavioral, health system barriers and family planning history. Quantitative data was completed and analyzed to enable direct comparisons between variables. The questions were translated in to Kiswahili(verbal) as they were asked for easier understanding of the respondents

3.5.2 Focus Group Discussions

Focus group discussions (FGDs) were also conducted, mainly to fill gaps that were not captured with quantitative data, hence, exploring more on why women did not use or discontinued using contraceptives (Appendix III).

3.6 Data Collection Procedures

Data collection was done after necessary approvals were sought from Busia county Ministry of health, Nambale Sub County Medical Officer of Health who handed the researcher over to the Community Strategy focal person to support in selection of Community Health Volunteers (CHVs) to participate in the study. Community Health Volunteers (CHVs) were used to

accompany the data collection team in the community health units per each sub location, since they are more familiar with the community. The key informant interviews were administered to the purposively selected reproductive health focal persons within selected health facilities. The research assistant in this case used a guide to elicit responses from the key informant which were recorded in a notebook. Focus Group Discussions (FGDs) were on the other hand administered to heterogeneous groups which comprised church leaders, Community Health Volunteers and selected members of the community. One moderator and one note take taker were employed to collect information from discussions guided by questions in the guide. The responses were recorded in a notebook and later consolidated and analyzed.

3.6.1 Questionnaire

The household (women) questionnaires were administered to women meeting the inclusion criterion in Swahili as the respondents were more comfortable with the language. The questions were read through verbal translation by the research assistants since they had been trained to do so. Responses were recorded on the questionnaires as the interviews went on. On average, the interviews lasted for 20 to 30 minutes.

3.6.2 Focus Group Discussions

FGD groups were established where their composition comprised representations from the community members (women representatives from the community, the church leaders, Community Health Workers,). Each of the groups was met separately and engaged in a free discussion centering on fertility, knowledge and socio-cultural practices' and contraceptives use among women of reproductive age (15-49) years. Selected research assistants were taken through a 2 days training covering the basics about research, the research study being undertaken, their code of conduct during the interviews and the questions covered in the

questionnaire. An informed consent was sought from the respondents prior to interview administration. The interviewers read the questions using the language that the respondent understood and then gave time to the respondents to answer the questions without reading the answers. Each interview took about 30 minutes. These questions were drawn from the key survey themes, namely; cultural and socio-economic practices, family size, fertility behavior and the use of family planning in relation to fertility.

3.7 Pre-testing

Pre-testing was done on 38 respondents that are 10% of the sample size (Mugenda and Mugenda, 1999). Pre-testing of the study tools was done in Teso South Sub County to assess the research instruments' rigor, clarity and formulate measures to address any limitations or threats to bias, suitability of the tools to the participants and set management procedures before carrying out the formal phase of the study. Teso South Sub County was ideal for piloting the research tools since it bears the same characteristics as Nambale.

3.8 Validity and Reliability

Content and face validity was used in this study to validate the research instruments. Face validity demonstrated that the questions measured what they intended to measure. Content validity is estimated by comparing the sample of items with the content and behaviors, which they should represent. If the sample of items covers all aspects of the content of behaviors, a high degree of content validity is attained. Content validity also has to do with the format of the instrument, which includes clarity of printing, size of type, adequacy of workspace, appropriateness of language and clarity of directions. Few changes and modifications were made such as rephrasing and moving items to a better domain.

Reliability was ascertained in this study using the Cronbach correlation coefficient. This study made use of 30 respondents that is the minimum sample size that can be used in application of Cronbach correlation coefficient to determine reliability. A comparison of the data obtained was made. R^2 was determined using Cronbach correlation formula for pilot testing. The Cronbach correlation was found to be 0.7 which implied that there was strong internal consistency in the questionnaire items.

3.9 Measurement of Variables

3.9.1 Independent Variables

The independent variables that were studied included the socio-economic and demographic characteristics such as age, cultural, educational, type of employment, religion, ethnicity and health systems factors. Age of the mother was defined as the number of completed years from the day of birth and was determined using reported age, marital status as the mother's marriage status that is if in marriage, divorced, widowed, single or separated, education level as highest-level attained, employment status as nature of income generation whether formal, informal, student or no job for both the women and their spouses. The information solicited was used to facilitate assessment of the characteristics of the mother that influenced knowledge and attitude which affected use of contraceptives. Cultural factors comprised of information about, ethnicity, religion, ever given birth, whether pregnant or not and whether they wanted to be pregnant then or wanted to wait, spousal preferences and decision making, belief in myths and misconception. Data gathered on social cultural characteristics of women, or their spouses were associated with contraceptives use. Facts about knowledge on contraceptives ranged from recognition of different methods by women and use, where information about contraceptives was sought, where contraceptives were sourced from, ever used, currently using, would like to use, never used and

never planned to use. Health systems factors ranged from cost of contraceptives, access to the nearest point of contraceptive services, information and counselling on use, health worker attitude, health worker skills set and willingness to offer contraceptives of choice to women.

The data collected as per the questionnaire in this study was in form of “yes”, “No”, “Don’t know” for the closed ended questions. For quantitative analysis, the various responses in the questionnaires were assigned numerical values. This was in the form of “yes”, taking the value “1”, “No taking the values “2” and “Do not know” taking the value “98”. For the descriptive statistics, the researcher summarized the respondents’ demographic characteristics as counts (n) and percentages (%) for categorical data and median for continuous data.

3.9.2 Dependent Variables

The dependable variable in this study was contraceptives use.

3.10 Data Analysis

3.10.1 Qualitative

A range of responses was offered for questions from key informant interviews and focus group discussions. The researcher was systematically able to organize this mass of raw data that had been collected in a manner that would facilitate proper and adequate analysis. Data was reviewed and themes identified (those that cropped up repeatedly within the data). Since the research questions majorly focused on finding out about people’s experiences, views, and opinions, it was important to use thematic analysis methodology. Verbal and behavioral data was done to classify, summarize and tabulate in to themes to reduce the amount of raw data. Themes were then developed and classified into classes to draw meaningful knowledge following a logical pattern.

3.10.2 Quantitative

Data were entered into SPSS version 23.0 (Illinois, Chicago). Data was analyzed quantitatively using descriptive and inferential statistics. Pearson's chi-squared test was used to determine the relationship between social cultural factors, knowledge, level of education, employment status and contraceptives use. The data were analyzed at 95% level of significance and **p**-value equal to or less than 0.05 was considered significant.

3.11 Ethical Considerations

Permission was sought from the School of Graduate Studies (Appendix IV) and ethical approval from Maseno University Ethics Review Committee {MUERC} (Appendix V). Ethical clearance was obtained from the Maseno University Ethics Review Committee (MUERC) and from the School of Graduate Studies, whereas permission to conduct the study was obtained from the Busia County Commissioner, County Director of Health and Sanitation. The researcher also sought written informed consent from the respondents prior to their participation. Additionally, the respondents were briefed on the research procedures as well as its aims and assured of utmost confidentiality.

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter gives a report of findings generated from data collected from the field presented under each objective of the study. It presents data on the socio-demographic characteristics, knowledge and attitude on uptake of contraceptives, socio-cultural, economic factors and health system factors influencing uptake of contraceptives.

4.1.1 Socio- demographic Characteristics

The mean age of the women was 31.8 ± 8.02 years (371, max = 49 years, min = 16 years), with majority 284 (76.8%) belonging to the (21- 40) years' age group. 363 (97.8%) of the respondents had attended school, whereas only 8 (2.2%) were without any formal education. On marital status, 314 (84.6%) of the women were married, with only 31 (8.4%) being single and the rest being either divorced, widowed or separated as shown in Table 4.1.

Table 4.1 Socio-demographic Characteristics of the Households

n=371

Characteristic	Frequency (n)	Percentage (%)
Age Group		
15 - 20 years	30	8.1
21 - 30 years	144	38.8
31 - 40 years	141	38.0
41 - 49 years	56	15.1
Level of Education		
Nursery/Kindergarten	6	1.7
Primary	163	44.9
Post Primary/Vocational	18	5.0
Secondary	130	35.8
College	39	10.7
University	7	1.9
Marital Status		
Single	31	8.4
Married	314	84.6
Divorced	2	0.5
Widowed	16	4.3
Separated	8	2.2
Women Occupation		
Farming	231	62.5
Formal employment	16	4.1
No-formal employment	82	21.9
Unemployment	43	11.6
Partners Occupation		
Farming	209	56.7
Formal employment	35	9
No formal employment	84	23.6
Unemployment	43	11.6

4.3 Knowledge, Attitude and Uptake of Contraceptives

4.3.1 Knowledge on Contraception and Use

Respondents' knowledge on the different methods of family planning was generally good as shown in Table 4.2. The most popular methods were barrier methods especially use of male condoms 353 (94.9%); implants 350 (94.3%), daily pills 342 (92.2%) and injectables 348 (93.8%). Additionally, most of the respondents 308 (83%) reported that they had good knowledge about unsafe days when a woman can easily conceive if she is involved in copulation. However, only 50 (16.2%) of the respondents could correctly identify the most unsafe period, as half way between two menstrual periods. Majority of them 183 (49.4%), said that the unsafe days are usually right after the menstruation period ends, 92 (24.7%) believed it was just before the menstrual period begins, 6.2% said that it was during the menstrual period, while the rest reported that they didn't know.

Table 4.2 Respondents' Knowledge on Family Planning Methods

n=371

Family Planning Method	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Female sterilization/ tubal ligation	293	79.0%	78	21.0%
Male sterilization/vasectomy	281	75.7%	90	24.3%
Daily Pill	342	92.2%	29	7.8%
IUCD	283	76.3%	88	23.7%
Injectables/Injections	348	93.8%	23	6.2%
Implants/Norplant	350	94.3%	21	5.7%
Male Condoms	352	94.9%	19	5.1%
Female condom/standard days/safe days /cycle beads	288	77.6%	83	22.4%
Withdrawal	239	64.4%	132	35.6%
EC/morning after pill/postnor 2	212	57.1%	159	42.9%
Lactational amenorrhea (lam) up to 6 months	184	49.6%	187	50.4%
Others	82	22.1%	289	77.9%

4.3.2 Source of Information on Contraceptives

Majority of the respondents 259 (69.9%) received information on family planning from the health workers especially the CHVs. The CHVs educate and counsel families about family planning, and also supply contraceptives such as condoms and pills as shown in Figure 4.1.

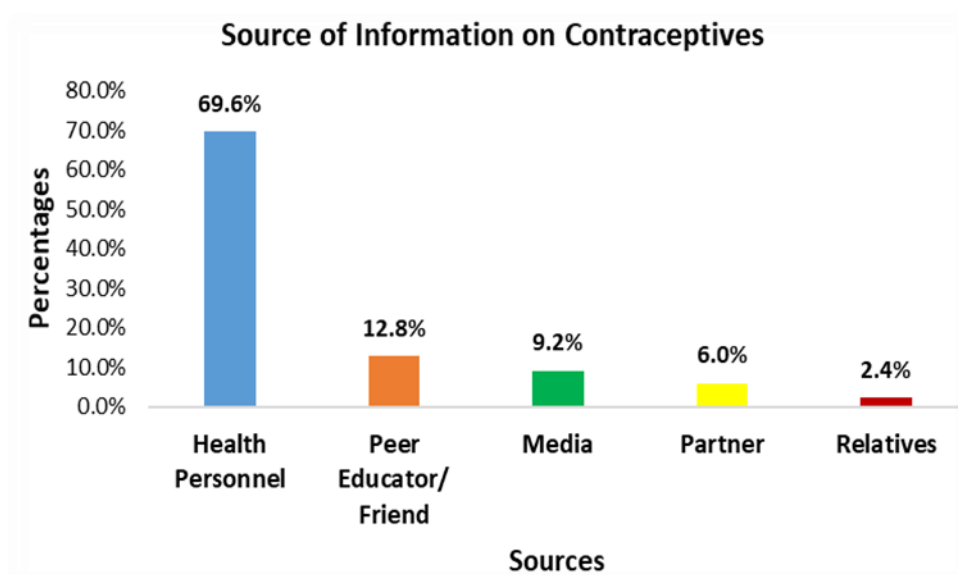


Figure 4.1 Source of Information on Contraceptives

Additionally, most of the respondents sought family planning services from the public medical sector 332 (89.7%). Other places included pharmacy/drug store 14 (3.8%) private medical sector 11 (3.0%), shops 3 (0.8%) and any other place 10 (2.7%).

4.3.3 Contraceptives Use

8 in every 10 respondents had used at least one form of contraceptive 303 (81.8%) and only 67 (18.2%) had not. The 67 respondents (18.2%) who had not used any method cited fear of getting pregnant after using a method and it fails 121 (32.8%), interferences with their menstruation 54 (14.7%) and other reasons such as; lack of knowledge on the family planning methods (9%), lack

of knowledge on management of side effects 103 (28%), high costs 5 (1.5%), religious factors 27 (7.5%) and disapproval from the husbands/partners 27 (7.5%) as shown in Figure 4.2:

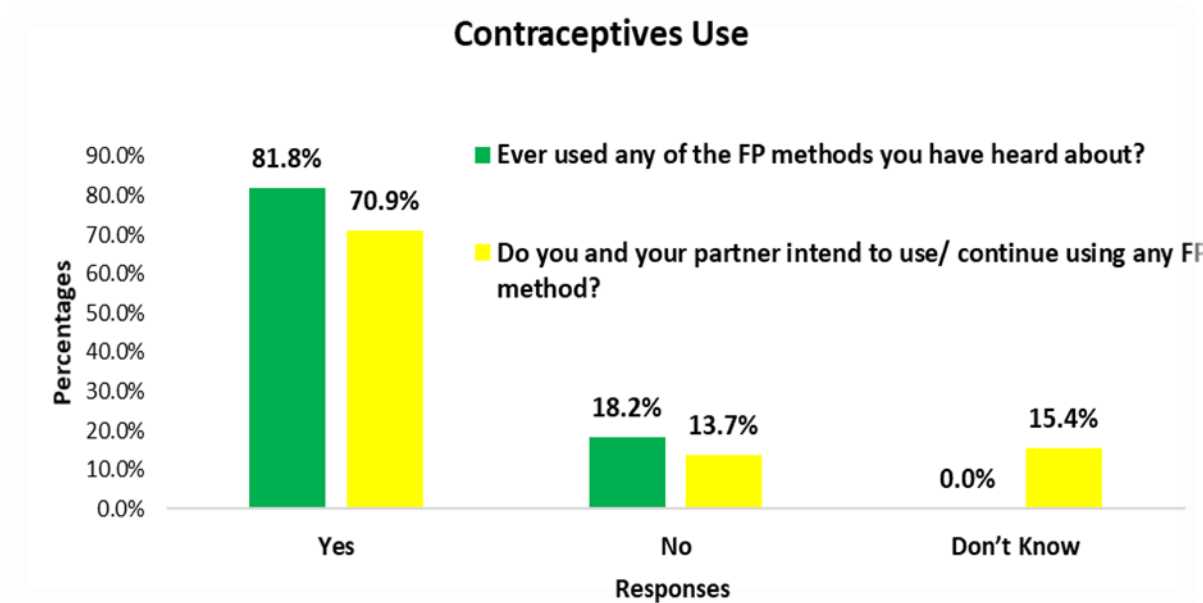


Figure 4.2 Use of Contraceptives among the Respondents

Only 70.9% (263) of the respondents were either intending to jointly (with their partners), use and/or continue using any of the family planning methods. 13.7% (51) had no intention of using any of these methods and about 15.4% (57) had neither discussed nor were they able to make a decision on their own on the use of family planning.

Reportedly, for the respondents who discontinued with contraceptive use, their major reasons were; health related factors such Family Planning methods created menstrual problems 114 (30.8%), failure of the method hence getting pregnant 81 (21.9%), unavailability of their preferred method at their nearest health facility 36 (9.8%), weight gain 11 (3.1%), sexual dissatisfaction 10 (2.7%), weakness/tiredness 3 (0.9%), lack of privacy at the health facility 8 (2.2%) and health workers' attitude 6 (1.8%). Other reasons included; disapproval from the

partner/husband 39 (10.7%), myths and misconceptions such as fear of barrenness 11 (3.1%) and contracting cancer 14 (4.0%), and cultural factors 24 (6.7%)

Majority of the respondents when they considered discontinuing with family planning due to the reasons stated above, sought help from either the Community Health Volunteers 210 (56.8%) or the health workers - doctors/nurses/clinical Officers 64 (17.3%). Only about 44 (12.0%) discussed the matter with their husbands/partners. The rest spoke about the issue with their friends 11 (3.0%); relatives – mother 17 (4.7%), mother – in – law 1 (0.3%), sister-in-law 1 (0.3%), sister 2 (0.7%) or other relatives 2 (0.7%); traditional birth attendants 6 (1.7%); Traditional healers/herbalists (2.3%) and peer educators (0.3%) among the adolescents.

4.4 Socio-cultural and Economic Characteristics

Most of the respondents 208 (77.1%) hailed from the Luhya community as expected, with 353 (95.1%) ascribing to the Christian faith. 303 (81.7%) of these women regarded religion as a very important component of their life. However, only 234 (65.2%) of the respondents agreed that their religion supported the use of contraceptives as shown in the Table 4.3.

Table 4.3 Religious Characteristics of the Women

n=371

Characteristic	Frequency [n]	Percentage [%]
Religion		
Catholic	156	42.0
Protestant/ Other Christian	197	53.1
Muslim	8	2.2
No Religion	7	1.9
Others	3	0.8
Is Religion Important?		
Very Important	303	81.7
Moderately Important	43	11.6
Not Important at all	7	1.9
Don't Know	18	4.9
Does your Religion Support Contraceptive Use?		
Yes	234	65.2
No	125	34.8

4.4.1 Decision making about Childbirth and Contraceptives Use

Almost all respondents 343 (92.5%) had ever given birth in their lifetime. On average, each respondent had at least 3 children (mean = 3.81 ± 1.98), with the highest having 10 children and the lowest having 1 child. 15.6% (n = 58) of the women were currently pregnant, with the average months of pregnancy at 5.08 ± 1.87 months (max = 8, min = 1). The unmet need for Family Planning among the respondents was generally high 211 (56.9%). Only 160 (43.1%) of these pregnant women wanted to have a child at the moment, 159 (43.1%) of them wanted to have children later and the rest 51 (13.8%) never wanted to have any children at all. In this community, husbands/partners have the final decision on both the contraceptive use and the number of children. When asked during a Focused group discussion, one of the respondents said,

“Most men beat up their wives when they learn that they have taken a contraceptive. Some men marry more wives as a punishment after their spouses have used a contraceptive method. Most men just don’t approve the use” a CHV from Mungatsi Ward.

This was confirmed as true since majority of the women 148 (39.9%) reported that it was their husband’s decision that dictated the number of children they were currently having. Additionally, half the number of women 186 (50.4%) wanted to give birth to the same number of children as compared to their husband’s number. The marriage structure for the respondents was predominantly monogamous 290 (78.3%), with only 80 (21.7%) of the women reporting that their husbands had other wives. Moreover, it was established that slightly above half of women 217 (58.7%) were facing difficulties discussing sexual matters with either their fathers and/or mothers as shown in Table 4.4.

Table 4.4 Spousal Preferences

n=371

Characteristic	Frequency (n)	Percentage (%)
Ever given birth		
Yes	343	92.5
No	28	7.5
Currently Pregnant		
Yes	58	15.6
No	313	84.4
Did you plan for the current pregnancy		
Yes, I wanted to get pregnant by then	25	43.1
No, I wanted to have children later	25	43.1
No, I did not want any more children at all	8	13.8
Compared to your number, how many children did/does your husband want		
Same number	187	50.4
More number	72	19.4

Less number	46	12.4
Don't Know	66	17.8
Who decided on the number of children that you have?		
Mainly You (Index women)	70	18.9
Partner/husband	148	39.9
Mother-in-law	7	1.9
Jointly	139	37.5
Others	7	1.9
Husband/Partner has other wives		
Yes	75	21.7
No	270	78.3
Difficulty discussing sexual matters with your father/mother		
Yes	195	58.7
No	137	41.3

4.4.3 Cultural Myths and Misconceptions

Cultural myths and misconceptions play a major role on the use of contraceptives. During the FGDs there was general fear among the respondents, especially adolescents who associated use of contraceptives with barrenness, deformities in babies and diseases such as cancer (more so individuals using IUCDs and implants).

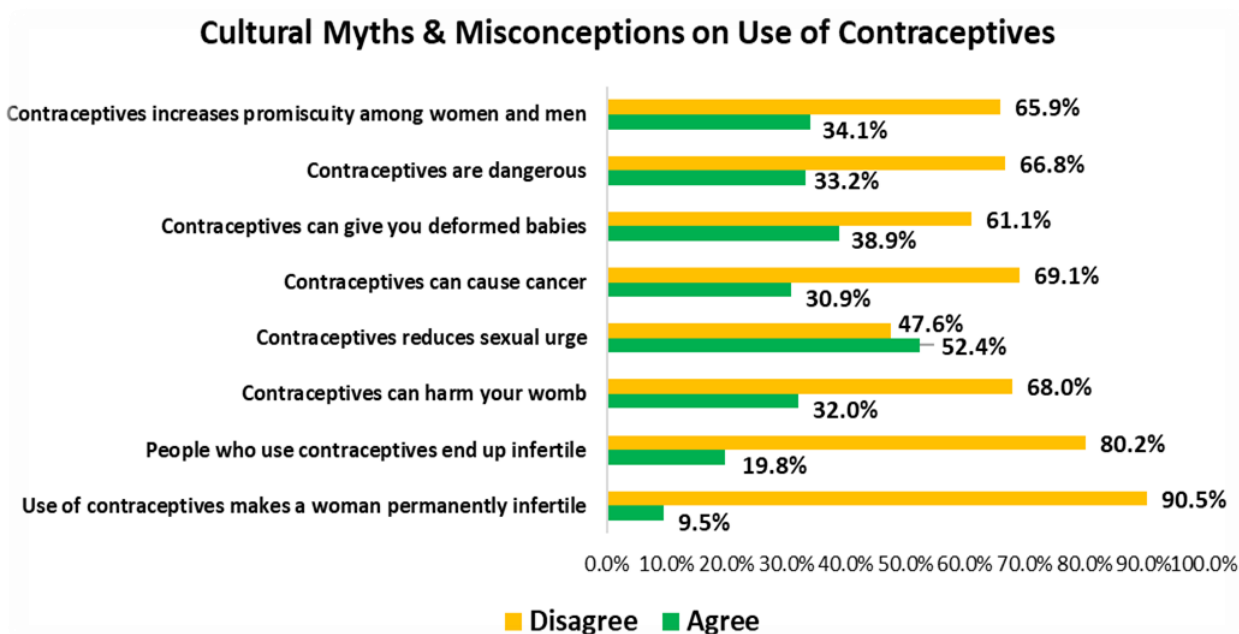


Figure 4.3 Myths and Misconceptions on Contraceptives Use

For example, in Syekunya ward, it was reported that mother-in laws prohibited their daughters from using contraceptives, due to the fear they may become infertile. However, from the quantitative interviews, it was evident that most women could easily identify with the myths and misconceptions as shown in Figure 4.3. It was also revealed that 5 in every 10 of these women, agreed that use of contraceptives reduces sexual urges.

Socio-cultural factors such as number and sex of children, wife inheritance, patriarchal nature of a community has been known to contribute to the use of contraceptives. Information gathered from the FGDs pointed out that in this community, the sex of the children matters; “When women give birth to children of the same sex, they continue bearing children until they have a child of a different sex.” Also, it’s largely men’s decision on the number of children, a woman should have. This is because some men believe that having many children makes their wives stay in marriage and discourages promiscuity and lack of respect. However, it was noted that other

cultural factors such as old age [shame of being pregnant] and wife inheritance promoted uptake of family planning.

“Sometimes some women go for permanent family planning methods especially when their spouses die and they get other partners willing to inherit them,” CHV from Kapina Ward.

4.4.5 Economic Characteristics

More than half of the respondents 231(62.5%) practiced farming as the main occupation. Similar results were mirrored among the partners, with 210 (56.7%) of the partners still practicing farming as their main occupation. This could be attributed to the high and reliable rainfall received in the region which favorably supports farming activities. Both the respondents and partners’ occupation were classified in 4 categories as follows: Farmers, formal employment (managerial, professional/specialist, blue collar job/ semi-skilled, clerk and civil Servant), non – formal employment (self-employed/ small business, hawkers/vendors and other jobs) and Unemployed (unemployed, students, retired) as shown in Figure 4.4.

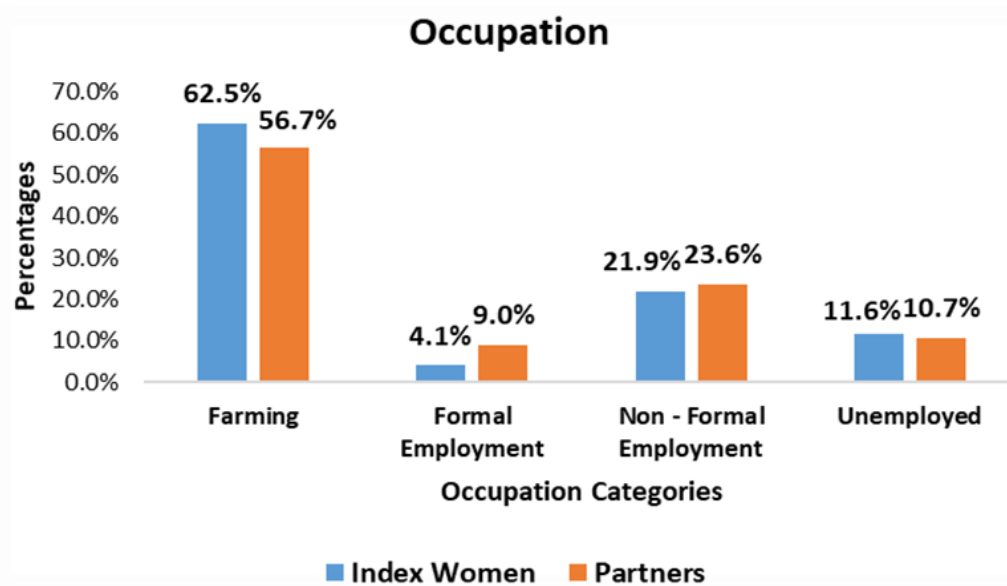


Figure 4.4 Distribution of Respondents Based on their Occupation

4.5 Health System Factors

Most of the respondents 313 (84.6%) who reported to have used contraceptives, indicated that they had been given information about the family planning method, and 283 (90.7%) regarded the information given as adequate. According to 246 (67%) of these respondents, the counselling sessions on FP method lasted for about 20-60 minutes, however, for the remaining 33% of the respondents reported to have had counselling sessions lasting less than 10 minutes. Family planning services are commonly free 306 (82.6%) for the respondents, hence, this explains why majority 287 (77.4%) agreed that the costs were affordable. Whereas most of the respondents 299 (80.7%) were able to secure their contraceptive of choice at their nearest health facility, 71 (19.3%) who couldn't get their preferred method, cited reasons such as; frequent stock outs 268 (72.4%), long distance to the health facility 70 (18.9%) and affordability 32 (8.7%). Almost all the women 340 (91.8%) could recommend their friends to obtain contraceptives at their nearest health facility. This could be largely attributed to; health providers' expertise 56 (15.2%) and good attitude 160 (43.3%), freedom to choose contraceptive of choice 54 (14.6%) among other factors as shown in Figure 4.5.

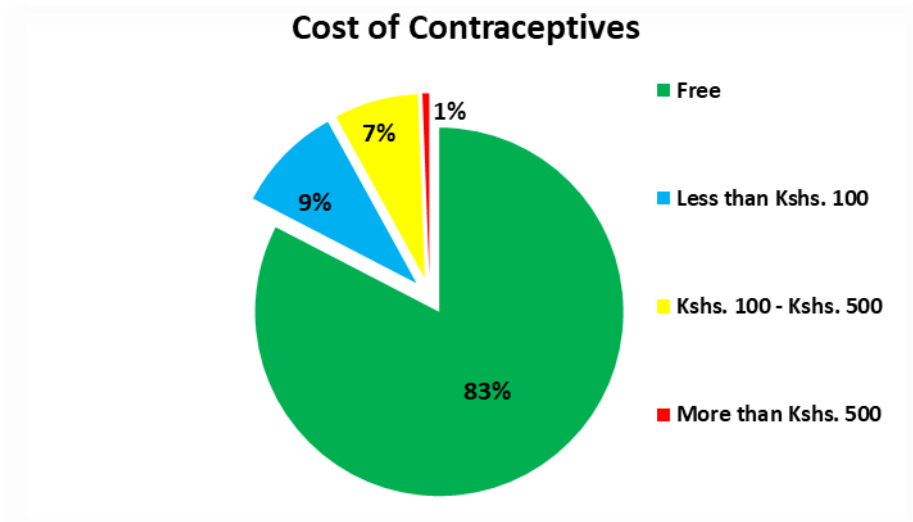


Figure 4.1 Responses on the Cost of Contraceptives

However, some respondents strongly felt that health providers' harshness and bad attitude 89 (24.1%), frequent stock outs 63 (17.2%), lack of privacy 51 (13.8%), inadequate knowledge about side effects 51 (13.8%) and lack of freedom to choose preferred contraceptives 37 (10.3%) were the main reasons why they couldn't recommend their friends to obtain contraceptives from these health facilities.

"Stock outs of contraceptives supplies especially implants, IUCDs, limit women to use Depo and pills when they don't want to use them. They end up not using any contraceptives. Some even refuse the other available options" Nurse, Kapina Ward

However, when asked if the health care providers at their nearest health facility were ready/willing enough to give them their method of choice, most respondents 316 (85.2%) believed they were, only 17 (4.6%) believed they were not, and 37 (10.2%) were indecisive.

4.6 Determinants of Contraceptive Use

The Pearson's Chi-square tests for independence (95% C.I; statistical significance = $p < 0.05$) revealed significant associations between contraceptive use and the following variables; Education level ($\chi^2(1) = 7.26$, $p = 0.007$), Religion ($X^2(4) = 14.15$, $p = 0.007$), Ever given birth ($X^2(1) = 12.36$, $p < 0.001$), and decision on the number of children a couple should have ($X^2(3) = 16.33$, $p = 0.001$). The binary logistic regression model (correct prediction rate at 81.8%) indicated that women's age, education level and total number of children were significant predictors of contraceptive use ($X^2(6) = 22.70$, $p < 0.001$). Older women were 0.95 times more likely to use contraceptives (95% C.I; 0.919-0.991, p -value = 0.015); women who had ever attended school were 0.10 times more likely to use contraceptives (95% C.I; 0.020-0.529, p -value = 0.006); and all the women who had at least one child were 0.35 times more likely to use contraceptives when compared to those who had none (95% C.I; 0.141- 0.875, p -value = 0.025).

CHAPTER FIVE

DISCUSSION

5.1 Introduction

The findings are discussed in comparison with the findings of other studies and further review of the findings are also presented.

5.2 Knowledge and Attitude on Uptake of Contraceptive among Women of Reproductive Age (15-49years)

The findings from this study revealed that both the women's knowledge on contraceptives and use was generally fairer when compared with the findings from the KDHS 2014. The contraceptive prevalence rate for Nambale stands at 39%, contraceptive discontinuation rate at 31% and total unmet need among women in marital union at 29% (KDHS, 2014). However, in this study 307 (83.3%) of the married women reported to have ever used a contraceptive method, 65 (17.7%) of them were not intending to continue using any contraceptives and 53.5% of these married women were currently pregnant (unplanned pregnancy), with 134 (36.3%) wanting to wait and have children later and 63 (17.2%) not wanting to have any children at all. The unwanted pregnancy rate observed follows a similar pattern observed in KDHS 2014, with Nambale at 59% higher than the national rate (43%). This was attributed to by the fact that most women were not using contraceptives or use traditional methods yet they did not intend to have more children. In contrast, this study established that most women were more familiar with modern methods of family planning especially the use of male condoms 352(94.9%) as compared with traditional methods. However, despite majority of the women 307(83%) reporting to have good knowledge about unsafe days, only a few 60 (16.2%) could correctly identify the most unsafe period. These findings coupled with the popularity but nonuse of male

condoms as a family planning method could attempt to explain the issue of unwanted pregnancies among women in marital union. Additionally, the phase between the KDHS (2014), and the current times, has witnessed increased campaigns on utilization of family planning services with noted improvements on FP uptake. Similar findings have been reported in a cross-sectional study conducted among the Digo community in Kwale, where Mochache et al., (2018), observed an increase in CPR at 54% and a total unmet for contraception of 16%, compared to a CPR of 42% which had been reported (KNBS & ICF Marco, 2014). However, there is still a high unmet need for contraceptive in Nambale despite the many interventions in place, meant to promote use. This study also established a gap in contraceptive knowledge especially about safe and unsafe days.

5.3 Socio-cultural Factors

Cultural factors play a crucial role in either use or non-use of contraceptives. Factors such as desired number of children, total number of children, marriage models, myths and misconceptions influences contraceptives use. Findings from this study show that the women who had at least one child were 0.35 times more likely to use contraceptives when compared to those who had none. Husbands/Partners had the final decision on both contraceptive use and the number of children a woman should have. This translated into 211 (56.9%) of the women being currently pregnant, yet, some wanted to delay giving birth for a specific period 159(43.1%), while the rest 51 (13.8%) never wanted to have any children at all.

“It is men who decide whether their wives use contraceptives or not. Men are the main decision makers most of the times and any woman going against their wishes will always end up being punished. Punishment can mean marrying of more wives. These forces women to hide when

seeking family planning services because their husbands don't approve it" a respondent from Kapina Ward

The marriage model was predominantly monogamous and there was no significant association between having more wives and contraceptive use. However, for those respondents 80 (21.7%) who were in polygamous marriage, it was established that there was competition among women, since the amount of affection given to a woman by the husband was directly proportional to the number of children they bore. Myths and misconceptions propagated within the community plays a role in contraceptives use. From the study it's evident that mother-in-law discouraged the use of contraceptives among the young women citing infertility reasons. Some women in the community believed contraceptives causes miscarriage, child death, diseases such as cancer and reduces sexual urges.

"Some women in this community believe that when a woman has complications such as miscarriage and child deaths, it is because of contraceptives use," a nurse from Kapina ward

This analysis is comparable to other several studies (Okech et al., 2011 & Hussein, 2011), which reported that women with more living children were using family planning services – especially long acting or permanent methods – more compared to those with fewer children. This was attributed to fulfilled fertility desires and cultural perceptions that more children signified a source of wealth. Contrary to these findings, Lunani et al., (2018) and Solanke (2017), reported that contraceptive use decreased as the number of living children increased—with the exception of women who had no children.

Socio-cultural norms and gender-stereotypic dynamics have been shown to influence Sexual Reproductive Health (SRH)-related attitudes and behaviors, especially regarding pregnancy intention and related uptake of contraception (Espinoza et al., 2014). These factors include those

related to spousal or in-law objection (Mochache et al., 2018). Okech et al., 2011, emphasized on the significance of the partner's approval in the use of contraceptives. The use of family planning without partner's approval could lead to misunderstandings in the marriage, considering that two out of five men believed that women's use of family planning would make them promiscuous (KDHS, 2009). As observed by Kabagenyi et al., (2014), lack of men's involvement in family planning has largely contributed to low uptake of contraceptives. Because men often lead the decision-making process in family matters, their non - involvement in family planning can affect a woman's decision regarding use of contraceptives. Unfortunately, majority of the couples do not discuss matters related to family planning, sexual, child spacing methods citing these reasons as not relevant and/or pertinent as those of financial, purchase of household items and education of children (Hussein 2011). Other misconceptions such as fear of physical or medical complications have been associated with non – use of contraceptives (Kabagenyi et al., 2014). Religion was also significantly associated with contraceptive use. Majority of the respondents were Christians (53.1% protestants and 42.0% Catholics), who considered religion as a very important factor in their lives (81.7%), yet at least 6 in every 10 respondents (65.2%) argued that their religion did not support contraceptive use. Similar findings were reported by both Mochache et al., (2018) and (Hussein 2011). Similarly, Lunani et al., (2018), observed low uptake of contraceptives among Muslims, which was attributed to their desire for more children. Anguko, (2014) documented that protestants had slightly higher rates of contraceptive prevalence compared with Catholics, while women who indicated no religious membership reported a definitely lower likelihood of practicing. Catholic faith discourages its members from using contraceptives as birth control measures, but instead to rely more on observation of menstruation cycles and natural safe days of a woman (Okech et al., 2011). However, it was

noted that involving religious leaders in policy development significantly improved acceptance and understanding of family planning programs. A religious woman is not less likely to practice, but a woman living in a religious community is (Anguko, 2014).

Moreover, strong religious identities affect willingness of women to discuss contraception with their partners/families/communities and an unwillingness to consider accessing it and eventually using it. Similarly, the institutionalized religious doctrines intersect with cultural beliefs in a society which bestows man as the overall head of the house and such beliefs are inherently subsumed in a patriarchal structure where women have been relegated as a weaker gender and could only measure their freedom of choice within the acceptable framework (Sensoy et al., 2018). The study confirmed that social and cultural factors have a negative influence on contraceptive use.

5.4 Economic Factors

The women's age and education level were identified as significant predictors of contraceptive use. Older women were 0.95 times more likely to use contraceptives, whereas, women who had ever attended school were 0.10 times more likely to use contraceptives as compared to those who had not. The findings from the focused group discussions revealed that due to cultural practices such as wife inheritance, older women (>30 years) would opt for long acting contraceptive methods once their partner dies and another person was willing to inherit them. Additionally, Hussein (2011), observed that acceptance of family planning methods increases systematically with an increase in age, with the young women especially <25 years registering lower acceptance due to the desire of newly wed couples to prove their fertility first since cultural myths and misconceptions associate contraceptive use with side effects such as barrenness.

These findings on education level are consistent with Mochache et al., (2018), who reported that women with any formal education were more than twice as likely to be currently using a contraceptive method. Lunani et al., (2018), also observed similar findings where women who had secondary or tertiary education were more likely to use contraceptives, followed by women who had primary education as compared with women who had no education. According to Omariba (2009), in sub-Saharan Africa, completion of primary education among girls has been strongly associated with reduced fertility as well as a host of other predictors of socioeconomic development of women. It is believed that educated individuals are able to make better-informed health-related decisions including the choice to lower their fertility (Emina et al., 2014). Additionally, women who are educated already understand the importance of having smaller family sizes. Findings from the focused group discussion indicated that educated men and women not only have a wider knowledge base but also have a stable source of income, hence able to afford radios and televisions. This means that they can get access to family planning information and make informed decisions.

There were no marked differences in socio-economic status among women, since more than 80% of the households fall under the lowest socioeconomic quintile. However, other studies have reported an increase in contraceptive use with a rise in socio – economic profile (Lunani et al., 2018). Anguko (2014), observed that female employment outside home often leads to a desire for small families and thereby increasing the acceptance rate of contraceptives. There was little information gathered on economic standards of women since there were no respondents from higher economic quantile to compare with. Further research will be required to substantiate the relationship between economic status of women and men and contraceptive use.

5.5 Health System Factors

This study examined health system factors influencing uptake of contraceptives and indicators assessed included; information on family planning methods, cost, availability of contraceptives and health workers expertise. The knowledge level on family planning was generally high among the respondents; 336 (90.7%) regarded the information as adequate and majority were familiar with the modern methods of contraceptives such as pills 342 (92.2%) and injectables 347 (93.8%). This could be attributed to the efforts by the Community Health Volunteers in creating community awareness about family planning.

Family planning services were mainly offered at public health facilities 332 (89.7%), hence largely free 306 (82.6%). However, it was noted that health system related barriers influencing non-use of contraceptives and discontinuation were; fear of getting pregnant after a method fails, frequent stock outs, fear of side effects, lack of privacy at the health facility and health workers' attitude. Consistent with these findings, Lasong et al., (2020), noted that women who were sensitized on contraceptive use at a health facility were 1.7 times more likely to use contraceptive as compared with their counterparts. However, contradicting these findings, a study conducted by Okacho et al., (2012) showed that awareness and knowledge of contraceptives failed to automatically translate to usage. Married women in Kenya who declined to use contraceptives in the future frequently mentioned fear of side effects and health concerns as reason of discontinuation. Einsberg et al., (2013), documented cost of purchasing contraceptives as a deterrent to modern contraceptive use among women, particularly intrauterine devices (IUDs). Consistent with this, (Asaolu et al., 2019), observed that Ghanaian women residing around health-facilities that required fees for contraceptive services had lower

odds of using modern contraception. Similar pattern has been observed even among adolescents. A youth study in Madagascar showed that a voucher program that delivered education, counseling, and free contraceptives increased adolescents' use of modern contraceptives, especially long-acting reversible contraceptives (Buke et al., 2013). The healthcare system is pertinent to understanding the indicators of contraceptive uptake because women may be denied reproductive healthcare if there is a lack of competent staff and/or limited contraceptive commodities (Asaolu et al., 2019). A trained health workforce is pertinent to promoting contraceptive use, as evidenced in a qualitative study of reproductive health providers in Uganda (Mugisha & Reynolds, 2008), which noted that many family planning clinics could not administer implants and intrauterine devices because the clinic lacked staff with the technical skills to insert these contraceptives. Inadequate health workforce is a pertinent problem in Kenya. This has led to innovative strategies to improve service delivery such as community-based distribution of family planning services through the community health volunteers. Experiences from some developing countries show that community-based family planning services have been used successfully to deliver FP methods including distribution of pills and injectables (Sensoy et al., 2018). The study confirmed that health systems factors such as proximity to health facilities, cost, healthcare provider's competence, provider education to clients influenced use of contraceptives, in line with other studies.

CHAPTER SIX
SUMMARY OF FINDINGS, DISCUSSION AND CONCLUSION AND
RECOMMENDATIONS

6.1 Summary of Findings

The study sought to assess the determinants of contraceptive use in Nambale Sub county, Busia county as knowledge attitude, social cultural factors, economic and health systems factors.

When asked if they knew at least 3 contraceptive methods, most women were familiar with modern methods of contraception for example condom 352 (94.9%) and safe days 307 (83%). However, from various responses provided, most women did not understand the importance of modern contraceptives. This was largely attributed by low level of education since they preferred to use traditional methods such as use of safe days.

This study shows that cultural beliefs have been propagated by spouses and women believed them. Nonetheless, most of the respondents said that their spouses had a great influence on the number of children they wanted to have and lack of their approval led to serious punishment including marrying of another wife.

Moreover, women who had at least one child were 0.35 times more likely to use contraceptives when compared to those who had none. Husbands/partners had the final decision on both contraceptive use and the number of children a woman should have. This translated into 211 (56.9%) of the women being currently pregnant, yet, some wanted to delay giving birth for a specific period 159 (43.1%), while the rest 51 (13.8%) never wanted to have any children at all; all being unwanted pregnancies. It was therefore noted that many cultural beliefs negatively affected the adoption of modern contraceptives.

Other factors assessed included; information on family planning methods, cost, availability of contraceptives and health workers expertise. It was observed that the community was knowledgeable about modern contraceptives which could be attributed to the efforts by the Community Health Volunteers in creating community awareness about family planning. However, the health care worker's knowledge about providing some contraceptive methods such as long acting ones affected use among women of reproductive age (15-49 years). The cost implication on some family planning methods offered by private practitioners was high compared to most families' income to procure. They therefore ended up not using contraceptives.

6.2 Conclusion

Contraceptive use is an integral part of reproductive, maternal, and child health interventions. This is because of its numerous benefits in preventing maternal death, reducing neonatal and infant mortality, and socioeconomic development and sustainability. This study sought to establish determinants of contraceptives use among women of reproductive age (15-49 years) in Nambale Sub-county. Socio-demographic, cultural, religion, and health system factors were identified as the major determinants of contraceptive use.

An increase in a woman's age and education level was associated with increased use of contraceptives. This could be linked to access to information on contraceptives due to the fact that they can read and understand key messages on use, side effects and make informed decisions. Generally, the knowledge level on family planning methods among the respondent was high. Other factors such as fear of side effects, method failure led to non use

Some cultural practices as wife inheritance promoted use of long - term family planning methods. Religion as well as other cultural factors such as fertility desires, myths and misconceptions, marriage models, and husband/partner's approval acted as barriers of contraceptive use. It is imperative to understand that men not only play a direct role in decision making on contraceptive use, but also, play an indirect role as a dominant factor in women's economic, social and family needs. The role of men in decision making on women's fertility and birth is always dominant. One of the biggest obstacle, to men's participation in reproductive health is the inadequacy of information. There is need to develop knowledge and attitude of men about family planning.

Moreover, families' economic stability had an influence on their ability to access contraceptives of choice. Those who had better occupation had better income to access contraceptives that they preferred from private facilities unlike the poor who only depended on free services at public health facilities.

Health system factors such as free provision of contraceptives, availability of adequate information delivered through the Community Health Volunteers (CHVs) and other health personnel increased uptake of contraceptives. However, frequent stock outs, fear of side effects and health concerns, lack of privacy at the facility and harshness/ bad attitude among the health workers discouraged uptake of contraceptives and consequently, increase of discontinuation rates.

6.3 Recommendations

6.3.1 Suggestions for Further Research

This study assessed the determinants of contraceptives use. However, it identified other grey areas for further research as: issues of promoting male engagement in family planning by adopting effective, and more inclusive structures and methods for knowledge sharing. Studies should be conducted to establish the determinants of contraceptive use among men to generate evidence for action.

6.3.2 Recommendations for Policy

Based on the findings discussed above, this study recommends

- i. That policies are developed to promote education especially among women so that they are enlightened and empowered to promote small family size among the population where they lead by example. Education among women translates to increased access to information and economic status hence can make positive decisions on use of contraceptives
- ii. Since men are the main decision makers regarding use of contraceptives among women, designing policies which will promote their involvement in reproductive health matters will help improve contraceptive use
- iii. Further research is required to provide adequate information that further links women's economic status and contraceptive use
- iv. In order to address health systems factors, the government should come up with policies for broadening the scope of CHVs through providing them with on-going educational opportunities in contraceptive counselling, and provision of hormonal contraceptives such as pills and depo provera and training all health workers on delivering

contraceptives including LARCs (long-acting reversible contraceptives such as Implants and IUCDs). These efforts can promote contraceptive uptake among women by enhancing patient knowledge and assuring the competency of health workers in delivering various contraceptive commodities and methods.

- v. Improving availability of different methods of contraceptives by enhancing supply side interventions like improved supply chains for commodities. this will provide women with freedom to choose their desired methods and consequently improve uptake of contraceptives.

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APPENDICES

Appendix I: Consent Form

Hello, my name is..... I am conducting research on reproductive health in your area. Your participation in this study will help understand the determinants of contraceptives use in your area. I will be asking questions to all women with ages between 15-49 years in this household. Being part of this study involves answering questions during a short interview that will take only a few minutes. To join this study is voluntary. You may refuse to participate as this will have no effect on your household.

Your answers will not be shared with anyone. All interviews will be held in private. Your name will not appear on the survey or report. I will not share your answers with community members, health providers, family or anyone else. At the end of this research, all answers will be put together to make a report.

You may not personally benefit from this study, but research helps society by providing new knowledge. I intend to do this interview in private. Some questions may not apply to you, but the interviewer must ask all the questions to all the respondents

There are no costs for being in this study. You will not receive any money for taking part in this study.

May I begin the interview now?

YES..... continue

NO..... close the interview

Interviewer's Sign.....

Farmer.....	04
Hawkers/ Vendors e.t.c.....	05
Blue collar job/ semi-skilled.....	06
Clerk.....	07
Civil servant.....	08
Retired.....	09
Unemployed.....	10
Student.....	11
Other.....	12

Section 2: Social, Cultural and Economic Data

Q6. Ethnic language

Luhya.....	01
Teso.....	02
Luo.....	03
Kalenjin.....	04
Kikuyu.....	05
Kisii.....	06
Kamba.....	07
Other	08

Q7. What is your religion?

Catholic.....	1
Protestant/ Other Christian.....	2
Muslim.....	3
No religion.....	4
Other (specify).....	5

Q8. Have you ever given birth?

YES.....	1
NO.....	2

Q9: How many sons and daughters do you have in total?

Q10: Are you pregnant now?

YES.....	1
NO.....	2

Q11: If YES, how many months are you pregnant now? []

Q12: At the time you became pregnant, did you want to get pregnant by then, did you want to wait until later or did not want any more children at all?

Then.....	1
Later.....	2
Not at all.....	3

Now let us talk about your husband and his preference

Q13. Does/Did your husband the same number of children that you want?

- Same number..... 1
 More number..... 2
 Less number..... 3
 Don't know..... 8

Q14. Who mainly decides/ decided the number of children that you have?

- A. Mainly you..... 1
 B. Partner..... 2
 C. Mother in law..... 3
 D. Jointly..... 4
 E. Others(specify)..... 5

Section 3: Beliefs/Cultural Practices

Please tell me if you would agree or disagree with the following statements

	A G R E E	DISAGREE
Use of contraceptives makes a woman permanently infertile	2	1
People who use contraceptives end up infertile	2	1
Contraceptives can harm your womb	2	1
Contraceptives reduces sexual urge	2	1
Contraceptives can cause cancer	2	1
Contraceptives can give you deformed babies	2	1
Contraceptives are dangerous	2	1
Contraceptives increases promiscuity among women and men	2	1

Self-Efficacy/Negotiation

	AGREE	DISAGREE
You are nervous about discussing contraceptives with your husband/ partner	3	2
You fear telling your friends that you use contraceptive method	3	2
You can convince your partner to allow you use contraceptives	3	2
If your partner opposes use of contraceptives you are unable to convince him that it is good for you	3	2

Please tell me your opinion, whether you agree or disagree with the following statements

	A G R E E	DISAGREE
The husband should be the one to decide whether the couple should use a contraceptives method	2	1
A woman who has no children is not complete	2	1
A woman who uses contraceptives without her husband's knowledge should be punished	2	1
A man who has no children is not complete	2	1
It is good for one to have many children because one is not sure who will survive and take care of parents at old age	2	1
The number of children that a couple will have is for God only to decide	2	1
A woman should continue bearing children until she has at least a son or a daughter	2	1

	NO.....2
LACTATIONAL AMENORRHEA (LAM) up to 6 months	YES.....1 NO.....2
OTHERS(SPECIFY)	YES.....1 NO.....2

Q16: Have you ever used any of the methods that you have ever heard about?

YES.....1
NO.....2

- a) If NO in Q16 above, why have you not used any method? (CIRCLE ALL MENTIONED)
- A. Sometimes method fails/ one gets pregnant
 - B. Lack of sexual satisfaction
 - C. Creates menstrual problems
 - D. Hard to use
 - E. Hard to get
 - F. It makes one put on weight
 - G. It makes you weak/tired
 - H. It costs too much
 - I. My church/religion does not approve it
 - J. Lack of privacy
 - K. Partner/husband does not approve

For discontinuers

Q17: What made you stop using the method above

- A. The method failed/got pregnant
- B. Created menstrual problem
- C. My partner never approved it
- D. I was told it would make me contract cancer
- E. I feared it would make me barren
- F. The health workers have a bad attitude
- G. The method I wanted was not available at my nearest health facility
- H. The method made me gain weight
- I. Lack of sexual satisfaction
- J. It makes one weak/tired
- K. My culture does not promote modern contraception
- L. Lack of privacy at the health facility
- M. Other(specify).....

a) Who did you speak to in Q 17 above??

- A. TBA
- B. Traditional healer/herbalist
- C. CHV
- D. Nurse

- E. Clinical officer
- F. Doctor
- G. Friend
- H. Partner/husband
- I. Mother
- J. Mother in law
- K. Sister
- L. Sister in law
- M. Peer educator
- N. Other relatives
- O. other (specify).....

Q18: Do you and your partner intend to use/ continue using any family planning method?

- YES..... 1
- NO..... 2
- DON'T KNOW...8

Section 5: Health System Factors

Now I want to ask you about how you receive family planning services at your nearest health facilities

Q18: If you or your friends have ever used contraceptives, were you given information about the method?

- YES.....1
- NO.....2

Q19: If yes, do you think the information given was adequate?

- YES..... 1
- NO.....2

a) If yes, how long did the counselling last?

- LESS THAN 5 MINUTES..... 1
- ABOUT 20 MINUTES.....2
- ABOUT 30 MINUTES.....3

Q20: How much was the contraceptive method?

- Free.....1
- Less than sh 100.....2
- More than sh100.....3

Q21. At times when you could not get your contraceptive method of choice, what were the reasons why?

- Out of stock..... 1
- Could not afford.....2
- Long distance from health facility 3

Q20: Were you or your friends given your method of choice?

- YES..... 1
- NO..... 2

Q21: Would you recommend your friend to obtain a contraceptive method at your nearest health facility?

YES.....1

NO.....2

A. If yes, why?

The health providers treat patients well..... 1

The health providers take time to counsel clients.... 2

The clients are given time to decide which methods they prefer..... 3

The providers educate women about side effects they expect..... 4

The providers educate clients on what to do when side effects occur... 5

The providers are confidential and offer privacy..... 6

I can always get a contraceptive method anytime..... 7

All contraceptive methods are readily available..... 8

The hospital is easily accessible..... 9

B. If No, Why?

The health providers are harsh/have an attitude..... 1

The health providers do not counsel clients..... 2

The health providers only force clients to use a particular method... .3

Providers do not inform clients about side effects 4

Provider does not provide information on what to do when side effects occur...5

There is no privacy given to clients.....6

Sometimes contraceptives are out of stock.....7

The health facility closes early or is sometimes closed.....8

The health facility is very far.....9

Q21: Do you think the health care providers at your nearest health facility are competent enough to give you your method of choice?

YES.....1

NO.....2

DON'T KNOW....3

Appendix III: Focus Discussion Group Guide

Sub County.....
Ward.....
Sub location.....
Date.....

What are the socio-cultural factors affecting people of Nambale Sub-County regarding use of contraceptives? Please explain?

In your own opinion, how do you think these factors in Q1 above have affected the use of contraceptives and family sizes of households in Nambale Sub-County?

What is the perception of the community regarding use of contraceptives among women of reproductive age in Nambale Sub-County? What is the role of men in regard to this?

In your opinion, who between men and women determines the number of children they would wish to have in their lifetime? Are there any beliefs (religious or cultural) within your community concerning use of contraceptives and the number of children in a family? If yes, briefly describe them

In your views, how does the community's social economic status affect the number of children that an individual or a couple would wish to have?

How does the educational level of men and women among the community affect the number of children that they bear?

In your opinion, how has the community been exposed to family planning programs and how has their awareness in regard to use of contraceptives and the desired family size been created?

Do you think the community is adequately aware of family planning programs to educate couples on prevention of unplanned pregnancies or children? Please explain

How has the attitude of the community regarding the use of contraceptives affected their family sizes?

In your view, are there access barriers to contraceptives use among women of reproductive age in this community

Do you think the women who visit health facility for maternal health services are provided with adequate information regarding modern contraceptives use?

Do you think most health care workers are competent enough to administer contraceptive methods such as IUD, Implants, BTL/ Vasectomy? Briefly explain

What do you think should be done to improve family planning uptake among women of reproductive age?

Appendix IV: Permission From School of Graduate Studies



**MASENO UNIVERSITY
SCHOOL OF GRADUATE STUDIES
Office of the Dean**

Our Ref: PG/MPH/6001/012

Private Bag, MASENO, KENYA

057)35122/351008/351011

FAX: 254-057-351153/351221

Email: sgs@maseno.ac.ke

Date: 25th June, 2019

TO WHOM IT MAY CONCERN

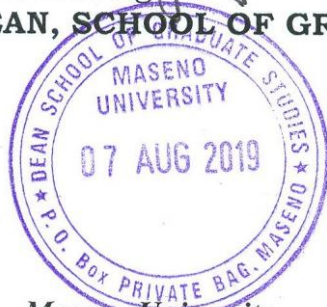
RE: PROPOSAL APPROVAL FOR WABOMBA MERCY—
PG/MPH/6001/2012

The above named is registered in the Masters of Public Health Programme in the School of Public Health and Community Development, Maseno University, this is to confirm that her research proposal titled "Determinants of Contraceptives Use among Women of Reproductive Age in Nambale SubCounty, Busia County, Kenya," has been approved for conduct of research subject to obtaining all other permissions/ clearances that may be required beforehand.

GRADUATE STUDIES

ISO 9001:2008 Certified


Prof. J.O. Agure
DEAN, SCHOOL OF GR



Maseno University

Appendix V: Maseno University Ethics Review Committee Approval



MASENO UNIVERSITY ETHICS REVIEW COMMITTEE

Tel: +254 057 351 622 Ext: 3050

Private Bag — 40105, Maseno, Kenya

Fax: +254 057 351 221

Email: muerc-secretariat@maseno.ac.ke

FROM: Secretary - MUERC

DATE: 30th April, 2020

TO: Mercy Wabomba

REF: MSU/DRPI/MUERC/00771/19

PG/MPH/00001/2012

Department of Public Health

School of Public Health and Community Development

Maseno University

P. O. Box, Private Bag, Maseno, Kenya

RE: Determinants of Contraceptives Use among Women of Reproductive Age in Nambale Sub County, Busia County, Kenya. Proposal Reference Number MSU/DRPI/MUERC/771/19

This is to inform you that the Maseno University Ethics Review Committee (MUERC) determined that the ethics issues raised at the initial review were adequately addressed in the revised proposal. Consequently, the study is granted approval for implementation effective this 30th day of April, 2020 for a period of one (1) year. This is subject to getting approvals from NACOSTI and other relevant authorities.

Please note that authorization to conduct this study will automatically expire on 29th, April 2021.

If you plan to continue with the study beyond this date, please submit an application for continuation approval to the MUERC Secretariat by 15th March, 2021.

Approval for continuation of the study will be subject to successful submission of an annual progress report that is to reach the MUERC Secretariat by 15th March, 2021.

Please note that any unanticipated problems resulting from the conduct of this study must be reported to MUERC. You are required to submit any proposed changes to this study to MUERC

for review and approval prior to initiation. Please advise MUERC when the study is completed or discontinued.

Thank you.




Dr. Bonuke Anyona,
Secretary,

discontinued.

Maseno University Ethics Review Committee.

Cc: Chairman,

Maseno University Ethics Review Committee.

MASENO UNIVERSITY IS ISO 9001:2008 CERTIFIED

