

**EFFECT OF DECISION-MAKING ON CONTRACEPTIVE USE AMONG COUPLES
OF CHILD-BEARING AGE IN KENYA**

BY

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DECLARATION

This research project is my original work and has not been presented for examination in any other academic institution.

Signature Date

Philip Kivati Mutunga
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This research project has been presented for examination with my approval as a University supervisor.

Signature Date

Dr. Wanjiru Gichuhi
Supervisor

DEDICATION

This work is dedicated with humility to my dear wife, Ruth Auma, and sons; Patrick Mutunga and Zandy Kamara.

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ABSTRACT

Due to the patriarchal nature of many African households, men hold power over many decisions, including family planning and family size. Decisions about contraceptive use and childbearing in a couple may be affected by lack of equality in power relations. Research has documented that secret use of contraceptives in Sub-Saharan Africa accounts for less than 20% of all contraceptive use which indicates a problem of women making decisions without involving their spouses. Women's participation in family planning decisions has influence on their reproductive health, overall health, and family balance. In Kenya, a few studies have been conducted on contraceptive use decision-making which made this study necessary. The key objectives of this study were to determine the effect of decision-making on contraceptive use among couples in Kenya and, how the effect of decision-making on contraceptive use was affected by other study variables. KDHS 2014 couples data was used in this study. Descriptive statistics and Logistic Regression were used for analysis of the study. Bivariate logistic results revealed that decision-making was significantly and highly related to contraceptive use at 0.001 level. Couples who had contraceptive decisions being made by the husbands/partners and those engaging in joint decision making were more likely to use contraceptives compared to those that decisions were being made by women alone.

Multivariate logistic results showed that the inclusion of background variables increased the effect of decision-making on contraceptive use. Further, the results revealed that desire for more children and education level of couples significantly influenced contraceptive use at 0.05 level. Wealth index and type of place of residence were highly related to contraceptive use among couples. Surprisingly, the results showed that couples for urban areas were less likely to use contraceptives compared to those from rural areas. The couples from wealthiest quartile (rich) were more likely to use contraceptives compared to those from the poor quartile. The results further showed that the strong and high significant effect of decision-making on contraceptive use was maintained net the effect of other variables. Couples who want more children were more likely to use to use contraceptive compared to those that wanted no more and those with secondary education and higher were more likely to use compared to those with no education. Additionally, given the results of this study, decision-making for contraceptive use stands out as important for family planning uptake. As recommended by ICPD 1994, male involvement remains critical for contraceptive use among couples and policy change in Kenya.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Decision-making is the rational process of choosing an appropriate option from a variety of options. Every aspect of human life revolves around decision-making and, therefore, it is paramount for the process to be carried out efficiently and diligently to forego undesired consequences (Anderson et al., 2017). The process is fundamentally simple and uncomplicated especially when the outcomes affects a single individual. However, in circumstances where the consequences affect more than an individual, decision making can be an arduous task. This could be due to differences in opinion and resistance to changes that might arise from the decisions made. This is common in a marriage situation where couples have to make decisions which affects the other individual (Acharya et al., 2010).

Since a marriage comprises two or more individuals from different cultures and backgrounds, decision making may be difficult bearing in mind the perceived role of the man in a patriarchal society (Bogale et al., 2011). These decisions may include, but not limited to, matters which affect the health of the wife. Lack of decision making capacity in healthcare renders affected adults a vulnerable and voiceless population (Kim & Song, 2018). It has been documented that despite men being more influential than women in household decision-making, there are some domains of decision-making where women have absolute control (Gerrard et al., 1990).

These may be matters pertaining to reproductive health and specifically to family size and fertility desires. According to the KDHS 2014, there was a conspicuous divergence in the ideal number of children for both men and women, recording 3.6 for women aged 15-49 and 3.9 for men (KNBS and ICF Macro, 2015). This indicates married men in Kenya desire more children than their matrimonial partners and may pose a challenge in contraceptive use to achieve their desired number of children. Married women are at the highest risk of conceiving due to the exposure, coital frequency, cultural expectations and patriarchal nature of African homesteads. Although there is inconclusive evidence of the disruption of fertility after discontinuation of contraception use, this still remains a great concern among both users and their partners (Girum & Wasie, 2018).

Maternal mortality accounts for fourteen (14) percent of all deaths in women age 15-49 in Kenya (KNBS and ICF Macro, 2015). Despite registering commendable progress in reducing maternal deaths over time, elimination and reduction of pregnancy-related mortality remains a challenge in most middle and low income countries (Campbell and Graham, 2006). Previous studies have revealed that modern familyplanning methods have been documented to be highly effective in improvement of maternal mortality through prevention of early and/or unintended pregnancies (Mustafa et al., 2015; Kavanaugh & Jerman 2018; Frost & Lindberg 2013).

Generally, it is assumed that the women choose a method and pattern of contraceptive use without external pressure and influence (Ehsanpour, 2010). However, some studies have found out that the decision to adopt contraceptives does not lie solely on the women and a woman's individual persuasion is not satisfactory to guarantee actual contraceptive use. The decision on the number and spacing of children may lie with the spouse or other influential relatives who may oppose the woman's opinion (Eliason et al., 2014). Due to the strong association between empowermentandreproductivehealth benefits, denying this power of women restricts their mobility, access to services and acquiring knowledge on contraception (ALsumri, 2015).

Therefore, this begs the question who makes the decision to adopt contraceptive use in a couple and as such, how this affects the uptake of contraceptiveamong couples of child-bearing age in Kenya. It is the aim of this study to findoutifdecision-making for contraception in the household has any significant effect on contraceptive use. This would be important to inform policy makers and research whether the crusade on improving contraceptive prevalence and lowering fertility rates in a couple setting is being affected by decision-making for contraception use.

1.2 Problem Statement

Research has documented that failure to involve women of reproductive age in household decision-makingincreasestheir chances of notcontrollingfertility (OlaOlorun & Hindin, 2014). Since spouses may have varying reproductive goals, partnerinfluenceremains fundamental and so it is important that partners' influence with regard to contraceptive use be further examined to inform programmes (Ochako et al., 2015).

Couples of child bearing age face a greater risk of experiencing pregnancy due to the coital exposure in comparison to all the other groups of women (Ochako et al., 2016). Sexual and reproductive health relations involve the synergy of both partners in a couple and both should play a part in contraceptive decisions (Plana, 2017). However, decision-making limitations are encountered in ensuring achievement of both partners' participation either as a result of couple power relations or cultural constraints which in most cases are favourable to men (Andrzej, 2008). In most parts of Africa, the recognition of husbands as household heads bequeaths them power in decision-making, extending to reproductive health, making it popular for couples to openly consult on this decision. Despite the fact that a majority of women embrace contraceptive use, permission of their partners could still be required before a certain method is actually adopted (Muanda et al., 2017). But literature shows that men's roles in contraceptive use have been overlooked in the past when designing fertility and family planning research programmes (Oyediran et al., 2002).

In a couple, since they bear the risk of getting pregnant when contraceptives are not used appropriately, women consider birth control as their responsibility and don't trust men to take that responsibility seriously. While men oftenly believe it is the responsibility of women to protect themselves from getting pregnant, women prefer having contraception control themselves (Ankomah et al., 2011). In patriarchal societies, some men may not approve their partners using any contraceptives or veto using particular methods, and this may lead women to use covertly (Lowe, 2002; Picavet et al, 2011). Hence, producing information on family planning decision-making has a paramount importance for designing appropriate programmes. In order to increase contraceptive utilization among couples of reproductive age, the barrier of decision-making role needs to be addressed (Eshete & Adissu 2017). In Kenya, very few studies have been done on decision-making and contraceptive use and little is documented about the relationship. Although women are supposed to make contraceptive decisions without any external influence and they face the greatest risk of getting pregnant, the decision-making may at times be influenced by the partner in a couple. Given the importance of contraceptive use and more so among couples who are at the highest risk of pregnancy due to increased exposure this study emphasizes the need to determine who makes the decision to use contraceptives; and whether the relationship persists when other factors are taken into consideration.

1.3 Research Questions

The study sought to answer the following question:

- i. What is the association between decision-making and contraceptive use and among couples of childbearing age in Kenya?
- ii. Is the effect of decision-making on contraceptive use attenuated by other factors like age, wealth index, education level, desire for more children, religion and place of residence?

1.4 Objectives of the Study

The general objective of this study was to determine if the decision making has any significant effect on contraceptive use among couples in Kenya.

The study had the following specific objectives:

- i. To determine the effect of decision-making on contraceptive use among couples of child-bearing age in Kenya;
- ii. To determine the effect of decision-making on contraceptive use net background characteristics (age, desire for more children, education level, wealth index, religion and place of residence) among couples of childbearing age in Kenya

1.5 Justification

Despite the proliferation and increase in contraceptive use and knowledge campaigns across the world, levels of fertility are relatively higher in Sub-Saharan African countries compared to other regions in the World which has sparked concern of both the government and researchers (Bongaarts, 2017; Okech, 2012). Moreover, it has been established that notwithstanding the intervention policy responses towards adoption of family planning, Total Fertility Rate and unmet need are still relatively high while Contraceptive Prevalence Rate remains very low (Bongaarts, 2017). Despite Kenya being one of the pioneers of Family Planning in Africa and its success widely acknowledged, improving family planning statistics is still challenging in the country.

It was the intention of this study to find out if decision-making affected contraceptive use among couples in Kenya. The findings of this study would be used to come up with recommendations to stakeholders which would increase couples participation in decision-making concerning their reproductive health.

The results would go a long way in fulfilling the aspirations of Sustainable Development Goal (SDG) number five on gender equality which emphasizes women empowerment through decision making. It would also assist in meeting the spirit of the Maputo Protocol Article 14 which recognises women's right to control their fertility, women's right to determine whether to have, the number and spacing of children, and, the right for women to choose any method of contraception without external influence (African Union, 2003).

1.6 Scope and Limitations

The study used couples data collected during the Kenya Demographic and Health Survey, 2014 data from 5,265 women (KNBS and ICF Macro, 2015). Limitations of the couple-level approach are it excludes the views and conduct of men and women who are not in a legal or cohabiting union (Bankole & Singh 1998; APHRC, 2001).

This being a survey means that it did not have universal coverage and the age reporting is subject to both content and coverage errors. The survey used structured interviews which did not delve deeply into the desired area of study and open ended questions were not included (Bankole & Singh, 1998). Some relevant questions in some regions may have been avoided due to cultural reasons which prevented extensive exploration of some of the issues being studied.

The study was limited to variables in the KDHS which comprise contraceptive use, decision maker for using contraception, age, desire for more children, wealth index, religion and type of place of residence. However, it is noted that the stipulated variables will not be the only ones that influence the contraceptive use and this shortcoming will be accepted.

Nevertheless, KDHS is among a set of high quality data collected with technical assistance from measure DHS which has provided such assistance to developing countries to ensure the collection and data analysis meets international standards.

CHAPTER TWO LITERATURE REVIEW

2.1 Introduction

This chapter addresses the theoretical background of the study, and literature review on contraceptive use. The first part addresses theoretical background while the second section discusses literature review of the study based on the study variables. The last section presents the conceptual and operational frameworks and operationalisation of variables.

2.2 Theoretical Background

Family planning is aptly defined as a life style and a premeditation which is voluntarily attitude favoured and is responsible for determination of the number of children per couple and spacing of births (Ehsanpour, et al., 2010). In today's world, family planning services and knowledge are not only considered as drivers to improvement of women and children's health, and population growth, but it is also considered as a rudimentary human right (Rastak, 2005). Although it is proven that most women exposed to the risk of unwanted pregnancies use contraception, there is a corresponding high rate of unintended pregnancy as a consequence of discontinuation and, inconsistent or inappropriate use (Whitaker et al., 2008; Glasier, 2006).

Previous studies have revealed a wide range of benefits accrued from practicing family planning in addition to preventing pregnancy. For instance, a study conducted in the United States found out that without family planning, levels of abortion and unintended pregnancy would have been two-thirds higher (Frost & Lindberg, 2013) although a study in France revealed that effective use of contraceptives was strongly linked to unintended pregnancy rates more than to unwanted abortion or birth rates (Bajos, et al., 2014). Other benefits of family planning were also cited, including but not limited to: improved academic and career outcomes, economic security, and ability to provide better care for the family.

Contraceptive methods were invented so couples and individuals could act on their desires and natural impulses with minimal or no risks of pregnancy (Hubacher, & Trussell, 2015). This study was supported by the economic theory of fertility developed by Gary S. Becker in 1960.

In societies with modest contraception knowledge, parity control could be achieved either through abstinence or abortion, with the former taking the form of postponed marriage and reduced frequency of copulation during marital union. Since there is individual control over these variables, there is also space for decision-making in such societies. However, the allowance for decision-making would be agonizingly modest, considering the ever present social forces impacting the age of marriage, the relative inefficiencies associated with reduction in the frequency of coition, and the cultural and legal restraints against abortion.

For most couples, children produce certain satisfactions, which can be considered as some kind of psychic income, and have a net cost. Every couple is expected to produce its own children since children, like conventional goods, cannot be purchased or sold in the market place, but rather must be produced at home. For this reason, every unpredictability in the production of children, for instance their number and sex, will produce a complementary uncertainty in their utility. Secular changes in religious affiliation, economic attainment, women discrimination, among others, may contribute to a decrease in fertility, and there are presumably other changes than the income growth which increase fertility.

The number of children a couple produces depends not only on the couple's demand but also on its ability to produce or supply them. Some families produce more than they desire while others are unable to produce as many children as they desire. Therefore, actual fertility may deviate appreciably from desired fertility (Becker, 1960). Becker, therefore, argued that couples with satisfactory contraceptive knowledge to control births have decision-making power over their parity.

2.3 Empirical Review

2.3.1 Decision Making and Contraceptive Use

Due to the patriarchal nature of African households, men have authority over household decisions, studies have shown that men can be deterrent or determinant of contraceptive use (Chipeta et al., 2010). As the household heads, men wield power in decision-making on family matters, inclusive of family size and contraceptive use. Thus, women either engage in consultative decision-making with their partners or explicitly lean on their partner's decision regarding their reproductive life. Sometimes, women in developing countries either engage in

decision-making with their partners or entirely depend on the partner's decision regarding issues affecting their reproductive health (Bogale et al., 2011). Other studies revealed that spousal communication is a robust predictor of contraceptive use and that women who had discussed with their husbands are highly favored to use of contraception (Chaudhary et al., 2016).

Proactive male involvement in female healthcare programs due to their decision-making influence should be encouraged at the household level (Sambath et al., 2016). Interactive relationship qualities and dynamics, inclusive of sexual decision-making, have been cited as strong predictors of contraceptive use with perceived partner exclusivity being associated with use of long-term contraceptive methods (Harvey et al., 2018). In Mozambique, notwithstanding the number of children alive, there exists a visible impact of the husband/partner's decision-making power on the healthcare matters related to the wife's intention to use contraceptives, and their participation in the reproductive health decision-making process as likely to have an impression on contraceptive use by women (Mboane & Bhatta, 2015).

In Nepal, a previous study conducted in Nepal has documented a link between women making their own decisions and contraceptive use as one of the strongest aspects of women empowerment (Patrikar et al., 2014). It has, therefore, been recommended that women should be allowed to select a method based solely on personal conviction rather than the choice of a particular method over another being influenced by exogenous factors is a key precept of women-centered reproductive health care.

Poor joint consultation has also been cited as a primary deterrent for adoption of a modern contraceptive method in women willing to adopt a family planning method, and, it was not prevalent for couples to consultatively agree on this decision (Muanda et al., 2017; Adera et al., 2015; Irani et al., 2014). In the minority of cases when a couple consulted on fertility matters, it was out of respect for the women's health or the economic strain of adequately providing food, clothes and education for their children.

Within their household, granting women the power to make decisions enables them to make personal centered decisions regarding their sexual and reproductive health (OlaOlorun & Hindin, 2014). This suggests that when women feel they brought on board by their partners, they acquire boldness to decide about their holistic health, contraceptive use included. It has been

recommended that programmatic interventions should be formulated to better a woman's negotiating power within the household, including her fertility. Although the attitude of men toward contraceptive use by their wives is generally positive, male partners' influence of their wives in the developing countries is doubtless (Adegbola & Habeebu-Adeyemi, 2016; Blackstone & Iwelunmor, 2017; Blackstone et al., 2017).

2.3.2 Other Determinants

i. Education

Education, the most outstanding social indicator, and has been termed as the most appropriate contraceptive, plays a pivotal role on fertility. Education creates self-efficacy which persuades women to use reproductive health services by surmounting and eradicating cultural impediments associated with subservience to men, side effects, large family size norms and side effects on matters related to fertility (Ayiga & Kigozi, 2016; Khraif et al., 2017; Bbaale & Mpuga, 2011). Education affects female autonomy by making women more future oriented. It increases women's knowledge about the availability of and accessibility to methods of contraception by increasing the ability to acquire this information from school based learning or from other sources such as the internet (Andalon et al., 2014).

Research has revealed that better educated women acquire more knowledge on contraceptives and how to access them since they are more willing to engage in ingenious behaviour (Ogboghodo et al., 2017; Ashimi et al., 2017).

Education enfranchises women, enables them more likely to secure employment outside their home environment, and enlightens them of their own and the health of their children. Therefore, one effective way of stimulating the practice of family planning would be increase the literacy levels of women, since educated women are more likely to be married late, adopt contraception, and have smaller family size than are uneducated women.

Research findings have showed that access and actual contraceptive use is positively associated with a couple's education. This was in agreement to studies conducted in Ethiopia which revealed that educated women are highly likely than their less educated counterparts to visit health facilities especially for family planning counseling services, then proceed to use modern

contraceptives, (Abraha et al., 2017; Worku et al., 2015). In Kenya, it was found that adoption was high among women with high postprimary education, and there was a significant relationship between contraceptive awareness and higher education level (Jalang'o et al., 2017; Chicoine, 2012). Increase in education has been shown to immensely influence a woman's fertility decision leading to marriage postponement, sexual activity, and reduced levels of fertility. This has demonstrated the importance of increased schooling and its positive effect on the decisions and choices of women.

A regional comparative study in Kenya on contraceptive use in Nyanza, Coast and Central provinces showed that conducive cultural environment and improved socio-economic status have promoted contraception through the intervention of family planning knowledge and fertility preferences (Kimani et al., 2013). The results suggested that disparities observed in the three provinces could be reduced by increasing literacy levels in Coast and overcoming retrogressive cultures such as large family norms in both Nyanza and Coast.

ii. Desire for More Children

Assuming that fertility intention precisely portends successive reproductive behaviour, the exploration of fertility intentions and preferences can suggest policies that may be helpful to women in meeting their reproductive health aspirations. Owing to the fact that a considerable proportion of women who are no longer interested in bearing more children are not engaged in using contraceptives, it is crucial to identify women who are unlikely to use contraceptives for development of effective family planning programmes (Withers et al., 2010).

It has been revealed that although more than half of the women were not willing to have more children, the contraceptive prevalence rate for this group was low exposing them to the risk of unwanted pregnancy (Azmoode et al., 2017). The desire for children has been cited as a contributor to discontinuation and/or failure to use contraceptive in Patna, India (Shree et al., 2017). Thus, there is a huge need to expand temporary contraceptive use for spacing while increasing husband's participation due to their influence over their wife's reproductive health decision.

Research conducted in Sub-Saharan Africa, inclusive of Kenya, revealed that with regard to fertility preferences, couples mostly agree on whether they want more children or not, that dispute only arise whereby the husband's fertility desires are more than those of the wife and, therefore, that contraception use either for spacing births or controlling family size is likely to be initiated more by wives rather than their husbands and mostly covertly (Bankole & Audam, 2011; O'Regan & Thompson, 2017). Most women indicated that they could not secure approval to use contraceptives from their husbands because they, husbands, wanted more children.

In Uganda, a study found that women's awareness of their spouse's desires with regard to fertility had a significant influence on contraceptive use. However, the study noted that a considerable proportion of the women reported perception of their partners desiring a child while their partners reported on the contrary (Lutalo et al., 2017). In Ethiopia, women without any desire for additional children in the future were found to be highly likely to adopt contraception. In addition, women who engage their husbands in fertility decision-making were highly likely to use contraception compared to other women since being proactive in family and household decisions grants women greater clout over their own destiny (Tekelab et al., 2015; Worku et al., 2015).

In East Africa, there are phenomenal dissimilarities in desired and actual fertility between selected communities in four East African countries. Without significantly trimming down desired or preferred fertility, family planning programs will be rendered ineffective. Therefore, family planning programs should implement a bifocal approach, that is, aim at reducing high desired/preferred fertility while simultaneously meeting family planning needs (Muhoza et al., 2014). In Kenya, women who had three children or are more favoured to use long term contraception methods in comparison to traditional or short-term methods with reference to those who have lower parity. In addition, women who perceived that had already attained their desired fertility goals were, therefore, highly favoured to use long-term methods (Ochako et al, 2016).

iii. Religion

Religious beliefs and faith have been identified as great drivers in contraceptive use across the globe. In Congo and Tanzania, studies investigating influence of religion on contraception revealed that Catholic and protestant women have twice the chance, while Muslim are twice

likely to use contraception than protestant devotees (Matungulu et al., 2017; Kidayi et al., 2015). This disparity in use was associated with theological values that different religions attached to the manifestation of pregnancy with some attributing this occurrence to supernatural will, a potential obstacle to the effective use of contraception. It is a common belief that children are placed in the woman's womb by God and there should be no stopping the process until they are born.

In Northern Nigeria and Northern Ghana, where Islam is principally the predominant religion, current use of contraceptive was lowest amongst Muslim women and were found to be unlikely to adopt contraceptive use compared to those in the South (Obasohan, 2015; Wusu, 2014; Ashimi et al., 2017; Adjei et al., 2014). This was attributed to the fact that Muslims practice polygyny which accepts and encourages large families and, as such, most women perceived that in order to attract the favour and attention of their husbands, they should oftenly get pregnant for them. From studying the interaction of Hindu and Islam it has prominently stood out that apart from theological doctrines, it may be the community interpretation of religion to women which influences their contraceptive use through their decision-making on other facets of their lives how to provide economically to their children and be able to offer the children quality life (Iyer, 2002). Thus, the individual religious observance may be considered secondary to community interpretations of religion when explaining contraceptive use.

However, despite the fact that Islam permits and encourages large families, cautions is given to parents to safeguard the fundamental rights of their children. In this regard, contraceptive use is permitted, not for controlling the number of children but rather for spacing the interval of bearing children.

Regardless of this permissibility, not many Islam faithfuls are unaware of it and, thus, may miss out on the opportunity to use contraceptive even in cases where the situation calls for such action. According to Srikanthan and Reid (2008), Roman Catholicism teaches that procreation within marriage is the primary motive of sexual associations and, therefore, faithful are forbidden from adopting both medical and physical contraceptive methods although natural contraception such as rhythm method and abstinence are permitted. On the other hand, no specific forms of contraception are forbidden among the Protestants. Orthodox Judaism is

pronatalist, which discourages contraceptive use apart from when only used for medical indications. According to Hindu doctrine, there are no explicit religious restrictions against contraception use, but the common truth and belief is women were created to bear children, especially sons. Among the Buddhists and Hindus, cultural factors which favour large families are likely to hinder contraceptive use despite the relative religious permissiveness on contraceptive use.

Despite the fact that religion has proved to be of great relevance in moulding family planning approach, a study found that it is of no relevance among Western Kenya women (Bakibinga et al., 2015). This stresses the fact that reproductive health and fertility related requirements vary contextually, a fact that calls for the operationalisation of contextually understood programs. For instance, in Ethiopia, where people's religiosity remains highly regarded, awareness of natural-contraceptive methods is recommended to help in informing faith based decision-making for religious people (Tigabu et al., 2018).

In another study conducted in Kenya, Muslim adolescents were found to be more favoured to use contraceptives in comparison to Catholics, Protestants and other Christians (Ikamari & Towett, 2007).

In Uasin Gishu, the women resorted to covert use due to the presence of certain discouraging beliefs observed among the Catholics (Kei et al., 2015). Some barriers identified for non-use included failure to agree on contraceptive use, fertility desires and decision-making role of the husband.

iv. Age

The age of women has been proved by research to be a great determinant of contraceptive use (Tehrani et al., 2001). Fairly young women who are new in marriage tend to avoid using contraception either due to unachieved fertility goals or partner related constraints (Solanke, 2017). Women who have attained their reproductive goals also neglect use of contraceptive since they perceive they are out of danger of conception due to their seniority in age. Being old and young are negatively associated with contraceptive use, while spousal age difference is not significantly associated with contraceptive use (Ejembi et al., 2015).

Couples who are older are more likely to have a stable relationships and more children compared to younger ones and, thus, to be more experienced with several contraceptive methods and presumably possess a more valued perspective on the subject (Picavet et al., 2011).

v. Type of Place of Residence

The residential place for a number of women has also been identified as a factor contributing to the uptake of contraception (Tehrani et al., 2001). This can be attributed to the disparities in access to knowledge and services evident in rural and urban settings. Women who are domiciled in urban areas have a comparative advantage with regard to access of knowledge and services compared to their rural counterparts. However, there are studies with a condescending view that women in rural residences are overtaking their urban counterparts in uptake of contraception in some regions of the continent (Aviisah et al., 2018).

Residing in urban dwellings has also been associated with increased contraceptive use since health facilities have variety and are easily accessible from couple's residencies. Further, urban couples are also more likely to be exposed to sensitization messages on family planning than their rural counterparts (Wablembo & Doctor, 2013).

vi. Wealth Index

The economic freedom of women has empowered women to be partakers in major decision making functions of the household. This is attributable to the fact that employment status mostly enables women to stay away from the household and maybe the partner thus giving the woman room as the sole decision maker. This self-reliance on both economic and household decision can make a woman decide on matters affecting her health including contraception (Solanke, 2017).

There were, however, other studies which had contrasting revelations that women from poorer households were more likely to use contraception than women from richer households (Aviisah, et. al., 2018). Poverty, among other factors is associated with high fertility rates. Female autonomy and economic development have been cited to influence of the effect of wealth, education and access to Family Planning information on contraceptive use patterns (Mutombo & Bakibinga, 2014). Couples who are socio-economically endowed are likely to afford modern

contraceptive methods and make important decisions on matters affecting their health (Hameed et al., 2014).

2.4 Summary of Literature Review

It has been shown that men can be deterrents or determinants of contraceptive use (Chipeta et al., 2010; Biddlecon & Fapohunda, 1998) and that women should willingly choose a contraceptive method based solely on personal conviction rather than their selection being influenced by exogenous factors is a fundamental precept of women-oriented reproductive health care. On issues concerning their reproductive and sexual health, women completely rely on the spouse's decision or decision-making is through consensus with their partners.

Spousal consultation concerning contraception also stood out strongly as a precursor of contraceptive use, thus, women who conversed with their partners about contraception were more likely to use contraceptives (Patrikar et al., 2014; Chaudhry et al., 2016; Harvey et al., 2018; Muanda et al., 2017). However, this decision is seldom shared and it is not common for couples to openly discuss the matter (Adera et al., 2015).

Education, the most outstanding social indicator, and has been termed as the most appropriate contraceptive, plays a pivotal role on fertility. Education creates self-efficacy which persuades women to use reproductive health services by surmounting and eradicating cultural impediments associated with subservience to men, side effects, large family size norms and side effects on matters related to fertility (Ayiga, & Kigozi, 2016; Khraif et al., 2017; Bbaale, & Mpuga, 2011). Therefore, one effective way of stimulating the practice of family planning would be increase the literacy levels of women, since educated women are more likely to be married late, adopt contraception, and have smaller family size than are uneducated women.

Religious beliefs and faith has been identified as a great driver in contraceptive use across the globe. Studies investigating influence of religion on contraception revealed that Catholic and protestant women had twice the chance, while Muslim are twice likely to use modern contraception than protestant devotees (Matungulu et al., 2017; Kidayi et al., 2015). It is a common religious belief that children are placed in the woman's womb by God and there should be no stopping the process until they are born.

2.5 Conceptual Framework

The study was anchored on a model of determinants and outcomes of contraceptive decision-making developed by Charles Picavet, Linda van der Leest and Ciel Wijssen in 2011. The framework considers demographic variables, contraceptive and sexual background variables as shown in figure 2.1. This brings together past experiences with contraception, sexual behaviour and fertility desires into one perspective. This clearly proves that contraceptive decision-making is not a single moment phenomenon, but it is an influential process reliant on the dynamic characteristics of age, circumstances and knowledge.

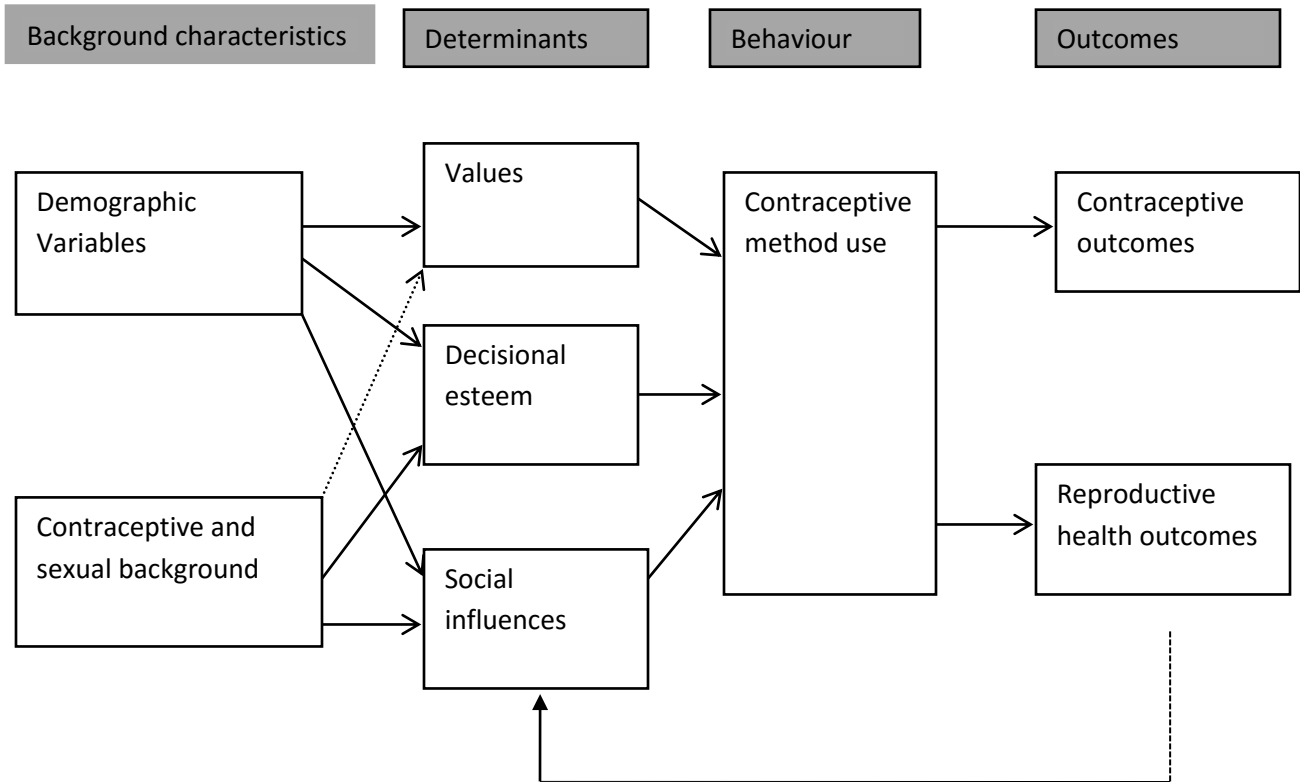
Background characteristics comprise demographic and personal characteristics of a woman. The model outlines how these demographic and personal profile shape a woman's basis of decision-making process. Although age is of great significance, it is oftenly correlated with other numerous characteristics, for instance, the duration and type of relationship, parity and desire for children. It has been shown that due to the ability and tendency to have stable relationships and more children, older couples presumably have more experience with various contraceptive methods and might possess more educated opinions on contraceptive use (Picavet et al, 2011).

According to the authors, religion and ethnicity also play a crucial role since many religions may prohibit the use of modern contraception. Therefore, a strong religious affiliation may result in failure to use or adoption of less effective natural methods. Several other studies have shown educational level to be significantly related to contraceptive use. They further argued that different contraceptive behavioural preferences can be an outcome of focusing on various aspects like protection against HIV/AIDS and venereal diseases, effectiveness, side effects, and health risks.

Decisional esteem, which is, having a specific sense of faith, belief and confidence about one's abilities in the quality of decision-making, has been linked to improved quality of the decision-making process. Although oftenly the woman has the right to make a decision about contraceptive use, she does not make such decisions in an environment devoid of other people and factors like the partner, doctors, sexuality education and environmental constraints which may be crucial to the decision-making process.

Characteristics of the partner, quality and power dynamics of a relationship, attitudes, beliefs and expectations on contraceptives are presumed to impact contraceptive choice and use.

Figure 2. 1: Conceptual Framework



Adapted from: Picavet et al., 2011

In a couple, since they bear the risk of getting pregnant when contraceptives are not used appropriately, women consider birth control as their responsibility and they rarely entrust men to take that responsibility efficiently.

Doctors could be important in contraceptive decision-making since for most birth control methods a prescription is needed, and it can be easily acquired from a trusted and easily accessible doctor. The involvement of the doctor in decision-making boosts consistency in use and access to information on alternative methods. Access to information on available methods is also crucial to the decision making process. This information could be from parents, media, friend and other people in the women’s environment. Environmental constraints like stigmatisation, availability and affordability of facilities are also brought on board when making

decisions for using contraceptives. The quality of contraceptive decision-making is measured by the adoption of a reliable method of contraception. Further, satisfaction with the contraceptive method indicated by continual use after a specified period of time, the ability to use the method according to the prescribed rules, trust in the efficacy of the method are also viewed as indicators of quality contraceptive decision-making.

2.8 Operational Framework

This framework (Figure 2.2) is based on the thought process of how decision making is perceived to influence contraceptive use with the support of background variables. Desire for more children is bound to influence whether a couple will adapt contraceptive use with a desire to have more children influencing contraceptive use negatively.

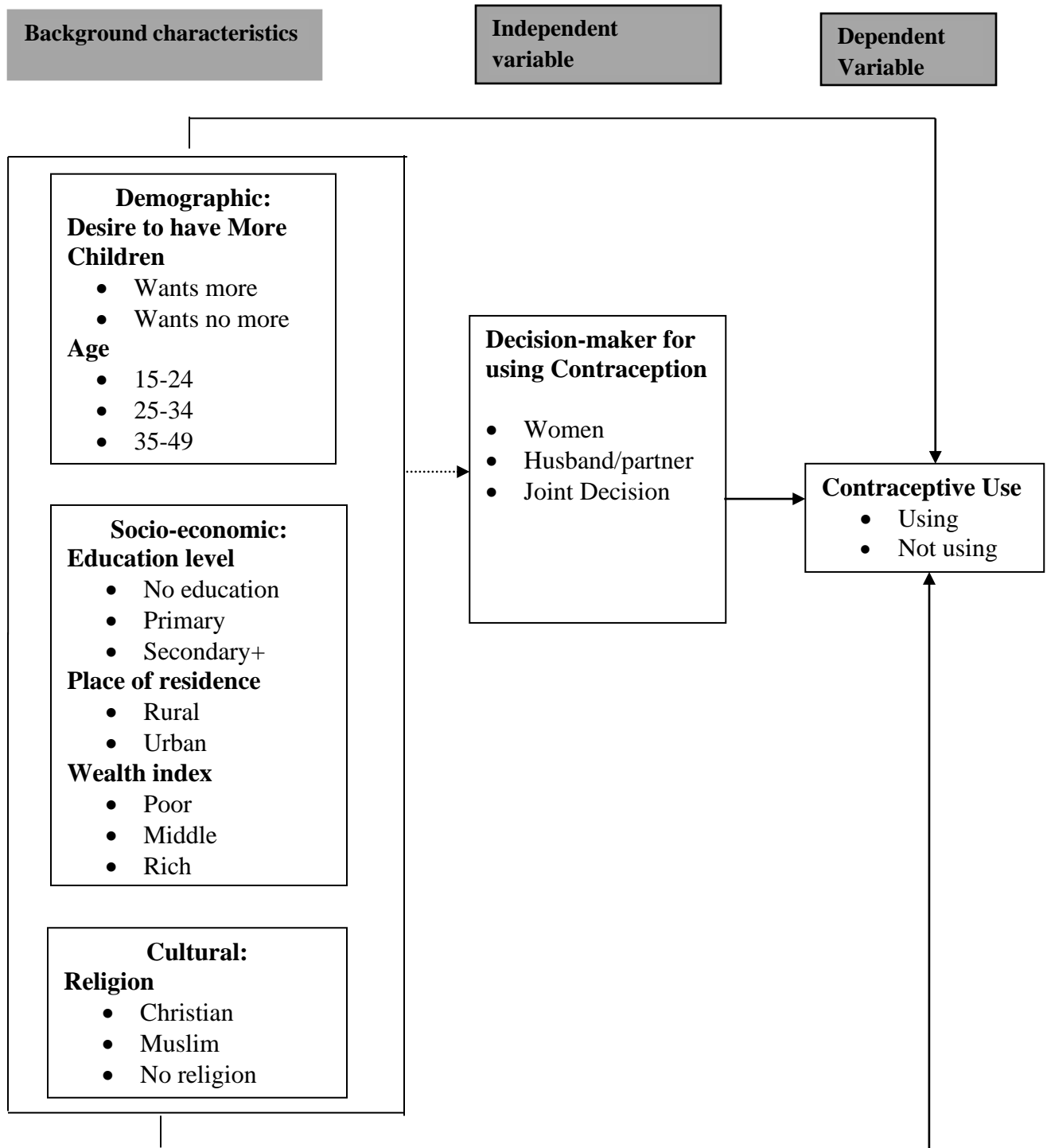
Level of education of the woman is regarded as a strong determinant of contraceptive use with high literacy levels being associated with adoption of contraception. This is due to the overall effect education has on age at first marriage or sexual debut, ability to understand contraceptive information easily and ease of knowing where to access services.

Religion is equally regarded as an influencer of contraception due to the varied religious beliefs affiliated to male-female relationships and the acquisition and termination of pregnancies.

The framework also puts into consideration the age of married women, which may play a huge role due to fecundity, presumed parity and contraception experience. The type of place of residence is included due to the relative disparity in access to knowledge and availability of family planning services in both rural and urban areas of residence.

Wealth index has been incorporated to take care of the effect economic preoccupation on women with higher economic status being associated with more social freedom thus less subservience to men and thus positive contraceptive use and vice-versa.

Figure 2. 2: Operational Framework



2.9 Operationalisation of Variables

This section shows how the various variable to be used in the study were described in terms of their attributes as shown in table 2.1 below:

Table 2. 1: Definition of Variables

SN	VARIABLE NAME	MEASUREMENT
1	Dependent Variable	
	Current Use	1 = Using 0 = Not using
2	Independent Variable	
	Decision Maker for using contraception	1 = Women 2 = Husband/partner 3 = Joint decision
3	Background variables	
	Desire for More Children	1 = Wants more 2 = Wants no more
	Age	1 = 15-24 2 = 25-34 3 = 35-49
	Education Level	0 = No education 1 = Primary 2 = Secondary+
	Wealth Index	1 = Poor 2 = Middle 3 = Rich
	Religion	1 = Christian 2 = Muslim 3 = No religion
	Type of place of residence	1 = Urban 2 = Rural

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter describes the target population, data, variables and methods of data analysis to be used in this study. The first section deals with the source of data to be used in analysis and its origin. The second section highlights the various variables to be used in the study. The third section discusses data manipulation to fit the study model with the last section discussing the methods of analysis for the study.

3.2 Source of Data

The data used in this study is from the 2014 Kenya Demographic and Health Survey (KDHS) with reference to the couple's file. The survey was executed by the Kenya National Bureau of Statistics from May to October, 2014 with partners. The 2014 KDHS was conducted in order to estimate fertility, measure fertility changes and contraceptive prevalence among other demographic indicators.

A total of 5,265 women had responded as coupled while 2,978 had responded to the question on decision maker for using contraception. There were 43.1 percent missing responses in the decision maker for using contraception among coupled women interviewed. Since there were numerous quality checks on the data collection and data entry instruments used in the KDHS 2014, it is without doubt that the data is of acceptable quality for research purposes. The staff charged with the collection and entry were qualified and trained severally both in the field and hands on for quality assurance.

From each sampling stratum, a two-stage sample design was used to independently selected the samples whereby 25 households were selected from each cluster. The interviewers were expected to only visit the preselected households, and during data collection, replacement of the preselected households was not allowed. Both the Woman's and Household Questionnaires were administered in all preselected households, while the Man's Questionnaire was only administered in every second household (KNBS and ICF Macro, 2015).

3.3 Methods of Analysis

The significance of data analysis is to extract a reliable estimation from unprocessed data (Alexopoulos, 2010). The study analysis utilized both descriptive statistics and Logistic regression analyses.

3.3.1 Descriptive Statistics

The descriptive statistics used were frequency distributions and cross-tabulations. A cross-tabulation table provides a means of present the frequency distribution of two or more variables simultaneously. The cross-tabulation table is a contingency table and can either be a bivariate cross-tabulation or a three-variable cross-tabulation. Cross-tabulation is crucial in informing the relationship between values of the two or more variables. It indicates which cross-selection is most favoured by the respondents, and how these cross-classifications differ from each other (Kamakura & Wedel, 1997).

Frequencies were generated to show the distribution of various variables of interest in the study population. Cross tabulations were specifically used to determine the association existing between each of the independent variables with the dependent variable. These would help in getting answers for research question two. Question two was aiming at finding out the association between contraceptive use and independent variables. Chi-square test was used to determine if these associations were statistically significant.

3.3.1 Logistic Regression

Multiple regression is a statistical method which is frequently used for analysing data when there are various independent variables. It is commonly used in the associational approach but it can also be used in place of analysis of variance (ANOVA) (Leech et al., 2003).

Logistic regression analysis was used to establish the statistical significance of decision-making and background variables with regard to the contraceptive use. Logistic regression, which is generally used to obtain odds ratio in the presence of two or more independent variables, is significantly close to multiple linear regression, except that the dependent variable is binomial. The result estimates the influence of each variable on the odds ratio of the outcome of interest. Odds basically gives an estimate of the strength of a relationship between two variables.

The strength of logistic regression is that it avoids confusing effects as a result of by analyzing the association of all variables together (Sperandei, 2014). Binomial Logistic regression is a predictive analysis method which is used if the dependent variable falls in two distinctive categories and is based on one or more independent variables which might either be continuous (interval or ratio) or categorical (nominal or ordinal). Contraceptive use is binomial (using and not using) while decision-making and the background variables are categorical and that was why binomial logistic regression was the most appropriate for analysis.

The binomial logistic model has seven assumptions which must be checked into for appropriate successful analysis. First, the dependent variable must be dichotomous or binary. Second, the independent or predictor variable(s) must be continuous or categorical. Third, there should be independent observation and the response variable must be mutually exhaustive and exclusive. Fourth, any continuous variables must have a linear relationship with the dependent variable logit. Fifth, the error terms do not need to be normally distributed. Sixth, homoscedasticity is not required. Seventh, little or no linearity is required between the independent and dependent variables. The predictor variables (represented by letter x) are combined linearly using weights or coefficient values (represented by the Greek capital letter β).

A general logistic regression equation is presented as:

$$Y = \frac{\exp(\beta_0 + \beta_1 X_1 + \dots + \beta_n X_n)}{1 + \exp(\beta_0 + \beta_1 X_1 + \dots + \beta_n X_n)}$$

Whereby, Y is the outcome to be predicted, β_0 is the intercept/bias term and β_1 is the coefficient for the single input value of the characteristic/predictor X_1 .

For this study, the logistic regression equation will be represented as:

$$C = \frac{\exp(\beta_0 + \beta_1 D + \beta_2 R + \beta_3 T + \beta_4 E + \beta_5 W + \beta_6 A)}{1 + \exp(\beta_0 + \beta_1 D + \beta_2 R + \beta_3 T + \beta_4 E + \beta_5 W + \beta_6 A)}$$

Where:

- C = Current use,
- D = Decision maker for contraceptive use,
- A = Age
- T = Type of place of residence,

R	=	Religion,
E	=	Education level,
W	=	Wealth Index
β_0	=	Intercept/bias term, and
$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$	=	weights/coefficients for the respective predictor variables

The study fitted two (2) logistic regression models. First the bivariate logistic regression (Model I) where decision-making was regressed on contraceptive use. Then a multivariate logistic regression (Model II) was fitted to test whether decision-making effect of contraceptive use was reduced or increased when other variables were controlled for.

CHAPTER FOUR

EFFECT OF DECISION-MAKING ON CONTRACEPTIVE USE

4.1 Introduction

This chapter presents the results of the effect of decision-making on contraceptive use among couples of child-bearing age in Kenya and is sub-divided into three sections. The first section shows how the various variables used in the study are distributed in the study population. The second section focusses on the association between study variables and contraceptive use. The last section presents results of logistic regression analysis and their discussion.

4.2 Descriptive Characteristics of the Study

This section presents the distribution of the various study variables in the selected sample as shown in Table 4.1. Out of 5265 couples 74.8 percent were using contraceptives, that is, three out of every four couples were using while about 25 percent were not using. In regard to decision-making for contraceptive use, about 60 percent of the decisions were made jointly, 29.4 percent made independently by women and 10.9 made by husbands or partners.

In reference to age, 48.8 percent of couples involved in the study were aged between 25 and 34 years followed by those aged 35-39 years at 32.1 percent while those aged 15-24 years comprised 19.1 percent. The data also showed that 54.2 percent of the couples of childbearing age did not want any (more) children while 45.8 percent wanted more children.

Regarding education, 60.6 percent of the couples had primary level of education while those with secondary and higher education were 35.7 percent of the population. Only 3.7 percent of couples in the study did not have any education. 43.4 percent of the couples were from rich households while those from poor households were 33.2 percent. Couples from middle income households made up 23.4 percent of the study population.

Christian couples formed majority of couples in the study at 94.5 percent, Muslim couples made up 4.4 percent while couples professing no religion were 1.1 percent. Majority of couples in the study were residing in the rural areas at 60.3 percent while 39.7 percent were dwelling in urban areas.

Table 4. 1: Distribution of Characteristics of the Study Population

Variable	Frequency (N=2978)	Valid Percent (%)
Current Contraceptive Use		
Not using	750	25.2
Using	2228	74.8
Decision Making for Contraceptive Use		
Women	876	29.4
Husband, partner	326	10.9
Joint decision	1776	59.6
Age		
15-24	568	19.1
25-34	1453	48.8
35-49	957	32.1
Desire for More Children		
Wants more	1363	45.8
Wants no more	1615	54.2
Educational Level		
No education	108	3.7
Primary	1806	60.6
Secondary+	1064	35.7
Wealth Index		
Poor	988	33.2
Middle	697	23.4
Rich	1293	43.4
Religion		
Christian	2815	94.5
Muslim	131	4.4
No religion	32	1.1
Type of Place of Residence		
Urban	1182	39.7
Rural	1796	60.3

4.3 Association between Contraceptive Use and Study Variables

The study sought to find out the association between contraceptive use, decision making and the background variables as shown in table 4.2. This was done in order to establish whether there was any significant association between contraceptive use and each of the variables.

Overall, there was a highly significant association between decision-making and contraceptive use at 0.001 significance level. All the couples were more likely to use than not to use contraceptives. With regard to decision-making, couples whose contraceptive use decisions were made by the husbands/partners had the highest proportions of contraceptive use compared to those whose decisions were made by women alone or were jointly made. Proportions of those that decisions were made jointly followed while couples whose decisions were made by women alone had the lowest proportion of contraceptive use

The association between desire for more children and contraceptive use was significant at 0.01 significance level. Couples who wanted more children were the highest using contraceptives at 77.3 percent while those who wanted no more were at 72.6 percent.

Education level and contraceptive use had a highly significant association at 0.001 level. Couples with secondary and higher education level were the highest users at 74.8 percent while those with primary education level were at 73.1 percent. Couples with no education were the least users at 61.1 percent.

Wealth index was highly associated with contraceptive use at 0.001 significance level. Couples from rich households had the highest proportion of contraceptive users at 79.2 percent followed by couples from middle income households at 72.7 percent. Least users were couples from poor households at 70.5 percent.

Religion had a significant association with contraceptive use at 0.01 level. Christian couples were the highest contraceptive users at 75.5 percent. Muslim couples were the second highest users at 63.4 percent and the least were those not affiliated to any religion at 59.4 percent. It was noted that more than a half of Muslim couples and those of no religion were not using contraceptives.

Table 4. 2: Differentials between Contraceptive Use and Study Variables

Variables	Current use (N=2978)	
	Not Using Percent(n)	Using Percent(n)
Decision Maker for Using Contraceptives		
Women	33.9(297)	66.1(579)
Husband/partner	19.9(65)	80.1(261)
Joint decision	21.8(388)	78.2(1388)
	Pearson Chi-square = 50.610, df = 2, p = 0.000	
Age		
15-24	25.4(144)	74.6(424)
25-34	23.8(346)	76.2(1107)
35-49	27.2(360)	72.8(697)
	Pearson Chi-square = 3.458, df = , p = 0.177	
Desire for more children		
Wants more	22.7(309)	77.3(1054)
Wants no more	27.4(441)	72.6(1166)
	Pearson Chi-square = 8.897, df = 1, p = 0.003	
Education level		
No education	38.8(42)	61.1(66)
Primary	26.9(485)	73.1(1321)
Secondary+	21.1(223)	74.8(2228)
	Pearson Chi-square = 23.524, df = 2, p = 0.000	
Wealth index		
Poor	29.5(291)	70.5(697)
Middle	27.3(190)	72.7(507)
Rich	20.8(269)	79.2(1024)
	Pearson Chi-square = 24.315, df = 2, p = 0.000	
Religion		
Christian	24.5(689)	75.5(2126)
Muslim	36.6(48)	63.4(83)
No religion	40.6(13)	59.4(19)
	Pearson Chi-square = 13.925, df = 2, p = 0.002	
Type of place of residence		
Urban	26.2(310)	73.8(872)
Rural	24.5(440)	75.5(1356)
	Pearson Chi-square = 1.129, df = 1, p = 0.301	

Age of the couples and their type of place of residence were not significantly associated with contraceptive use.

4.4 Logistic Regression of Study Variables on Contraceptive use

The study results for bivariate logistic regression presents the effect of decision-making on contraceptive use as shown in Model I of Table 4.3. Decision-making was shown to have a highly significant relationship with contraceptive use among couples of child-bearing age at a significance level of 0.001. Couples who reported that contraceptive decisions were made by the husbands/partners had the highest likelihood of compared to those that decisions were made by women alone and the odds of use were 2.1 times more. Couples who reported to be making joint decisions for contraceptive use were shown to be 1.8 times more likely to use contraceptives compared to the reference category.

The study further sought to determine if the effect of decision-making on contraceptive use was affected by background variables as shown by multivariate logistic regression results in Model II of Table 4.3. The study results showed that the introduction of background variables into the regression model did not obliterate the effect of decision-making on contraceptive use but it rather increased the effect. Model II showed that decision-making still had a highly significant effect on contraceptive use among couples of child-bearing age in Kenya at 0.001 level.

As per Model II, couples who reported that contraceptive use decisions were made by the husband/partner and those making joint decisions were highly influential to contraceptive use at 0.001 significance level. Couples who reported that the husband/partner made contraceptive use decisions were 2.1 times more likely to use contraceptives compared to couples whose contraceptive use decisions were made by women. Couples who engaged in joint decision making for contraception were 1.8 times more likely to use contraceptives with reference to couples whose contraceptive use decisions were made by women.

Desire for more children had a significant effect on contraceptive use among coupled women of child-bearing age in Kenya. Couples who wanted no more children were 1.3 times more likely to use contraceptives with reference to those who wanted more children.

Table 4. 3: Logistic Regression for the Effect of Study Variables on Contraceptive Use

	Model I			Model II		
	<u>B</u>	<u>S.E.</u>	<u>Exp(B)</u>	<u>B</u>	<u>S.E.</u>	<u>Exp(B)</u>
Intercept	0.668			-.552		
Decision Maker for Using Contraception						
Women©						
Husband, partner	0.723	0.156	2.1***	.753	.158	2.1***
Joint decision	0.607	0.092	1.8***	.595	.093	1.8***
Desire for More Children						
Wants more©						
Wants no more	-	-	-	.229	.102	1.3*
Education Level						
No education©						
Primary	-	-	-	.351	.214	1.4
Secondary+	-	-	-	.531	.227	1.7*
Age						
35-49©						
15-24	-	-	-	-.014	.144	.9
25-34	-	-	-	.125	.105	1.1
Wealth Index						
Poor©						
Middle	-	-	-	.052	.113	1.1
Rich	-	-	-	.504	.114	1.7***
Type of Place of Residence						
Rural©						
Urban	-	-	-	-.377	.098	.7***
Religion						
No religion©						
Christian	-	-	-	.514	.375	1.7
Muslim	-	-	-	-.006	.414	.9

©Reference category *p<0.05, **p<0.01, ***p<0.001

Education level was significant to contraceptive use among couples of child-bearing age in Kenya. Only having secondary and higher level of education was significantly related to contraceptive use among couples of child-bearing age in Kenya with reference to couples having no education at 0.05 significance level. Couples with Primary education were 1.4 times more likely while those with secondary and higher education were 1.7 times more likely to use contraceptives with reference to those with no education at all.

Wealth index was significantly related to contraceptive use among couples in Kenya. Only couples from rich households had significant effect on contraceptive use at 0.001 significance level while couples from middle income households did not have any significant influence with reference to couples from poor households. Couples from middle income and rich households were 1.1 and 1.7 times, respectively, more likely to use contraceptives with reference to couples from poor households.

The type of place of residence had a significant effect on contraceptive use among couples of child-bearing age in Kenya at 0.001 significance level. Couples residing in urban dwellings were 0.7 times less likely to use contraceptives with reference to their counterparts dwelling in the rural residences.

The religion and age of couples of child-bearing age did not have any significant effect on contraceptive use in Kenya.

4.5 Discussion

This section presents interpretation of the results deduced from the study and their implications on both decision-making and contraceptive use. The results will be discussed beginning with the independent variable and then background variables which were found to be significant to contraceptive use.

The study results showed that joint decision-making for using contraceptives was the highest among couples of child-bearing age in Kenya. This contradicted another study conducted in Ethiopia which found out that male-dominated decisions were more than joint decisions and female-dominated ones (Vouking et al., 2014). The results further showed that couples with husband/partner making contraception decisions were 2.1 times more likely while those who

were engaging in joint decision-making were 1.8 times more likely to use contraceptives compared to couples whose contraceptive use decisions were made by women. The study results further revealed that decision-making had a highly significant association and effect with contraceptive use at 0.001 level. This finding was in agreement with a study conducted in Western Ethiopia which revealed that married women who made joint fertility decisions with their spouses were 3.7 times more likely to use contraceptives and that contraceptive use increased with the number of decisions women made jointly with their husbands (Tekelab et al., 2015).

The study results also showed that contraceptive use was highest among couples whose decision for using contraceptives were made by the husbands/partners at 80.1 percent and closely followed by couples who engaged in joint decision making at 78.2 percent. More than half of couples whose decisions for using contraceptives were made by women were found not using contraceptives. This finding agreed with a study done in Bangladesh which concluded that women's unilateral decision-making is unlikely to have a positive influence on contraceptive use (Uddin et al., 2017).

Desire for more children had a significant relationship with contraceptive use at 0.05 significance level. Couples who wanted no more children were 1.3 times more likely to use contraceptives compared to those who wanted more children. The study contradicted a study done in Indonesia which concluded that a significant proportion of women who have no desire to continue childbearing do not, in fact, use contraceptives (Withers et al., 2010).

Education was significantly related to contraceptive use at 0.05 significance level. Couples with secondary and higher levels of education had the highest contraceptive use. Further, the results showed that more than half of married women with no education were not using contraceptives. This concurs with a study done in Kenya which stressed the significance of increased schooling and its positive effect on the choices and decision-making (Jalangó et al, 2017). Couples having secondary and higher level of education was the only category significant to contraceptive use with reference to those having no education. Couples having secondary+ education were 1.7 times more likely to use contraceptives compared to those with no education. This finding was in agreement to a study done in Western Ethiopia (Tekelab et al, 2015). Couples with primary level

of education were 1.4 times more likely to use contraceptives with reference to couples with no education.

With regard to wealth index, couples from rich households were the highest contraceptive users at 79.2 percent. Only couples belonging to rich households was being related to contraceptive use with reference to being from a poor household. Couples from rich households were 1.7 times more likely to use contraceptives compared to those from poor households. Overall, wealth index had a significant effect on contraceptive use among couples of childbearing age in Kenya at 0.001 level. This contradicted a study conducted in Ghana which revealed that women from richest households were 25% less likely to use modern contraceptives compared to women from poorer wealth index households (Aviisah et al., 2018).

With regard to contraceptive use, women in rural areas had the highest proportion using contraceptives at 75.5 percent while the urban dwellers had the highest proportion not using contraceptives at 26.2 percent. Multivariate regression results showed that the place of residence was highly significant to contraceptive use at 0.001 level. Urban dwelling women were shown to be 0.7 times less likely to use contraception with reference to the rural dwellers women. This is in agreement to studies done in Northern Ghana (Adjei et al, 2014) and in Ethiopia (Worku et al, 2015).

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter highlights a summary of major findings, conclusion made from the study and recommendations for further research/policy. The first section presents a summary of the key findings and their implications to the family planning efforts in Kenya. The second section deals with the conclusion drawn from the findings of the study and lastly the study will recommend suggestions for both policy and programmes and, for further research.

5.2 Summary of findings

The study results showed that three in every four couples were using contraceptives. Couples who were engaging in joint decision-making were slightly more than three times using contraceptives while more than half of women making their own decisions were not using contraceptive and had the least usage. Decision-making had a highly significant effect on contraceptive use among couples of child-bearing age in Kenya.

The study also showed that majority of the couples were aged 25 years and above. More than a half of couples did not want to have (more) children compared to those who indicated they wanted (more) children. Couples that wanted (more) children were shown to have the highest percentage use compared to those who did not want (more) children. Desire for more children had a significant effect on contraceptive use among couples of child-bearing age in Kenya. Couples who wanted no more children were 1.3 times more likely to use contraceptives with reference to those who wanted more children.

Education level was significantly related to contraceptive use among couples of child-bearing age in Kenya. More than half of the couples were having primary education while slightly more than a third were having secondary education and higher. Those with no education represented a very small proportion (less than five percent) of the study population. Couples with secondary education and higher were the highest contraceptive users with a proportion of three quarters using.

Couples with Primary education were 1.4 times more likely while those with secondary and higher education were 1.7 times more likely to use contraceptives with reference to those with no education at all.

There were more couples residing in rural dwellings than those residing in urban areas with three in every five couples dwelling in rural areas. Couples residing in rural areas had the highest contraceptive use with more than three in every four using. The type of place of residence had a significant effect on contraceptive use among couples of child-bearing age in Kenya at 0.001 level. Couples residing in urban dwellings were 0.7 times less likely to use contraceptives with reference to their counterparts dwelling in the rural residences.

Almost a half of couples were shown to be from rich households with regard to wealth index while slightly more than a third were poor. Couples from rich households had the highest percentage contraceptive use with four out of every five using. Couples from middle income and rich households were 1.054 and 1.655 times, respectively, more likely to use contraceptives with reference to couples from poor households. Wealth index was significant to contraceptive use among coupled women in Kenya at 0.001 significance level.

5.3 Conclusion

The results of the study confirm that decision-making is crucial for contraceptive use among couples of child-bearing age in Kenya. More than half of couples whose decisions were solely made by women were not using contraceptives. This finding agrees with a study done in Nigeria which revealed that women who agreed that family planning is only women's business, were less likely to have used methods than their counterparts who did not agree (Ankomah et al., 2011). This clearly shows that among couples, making decisions without involving the spouse could lead to failure of contraceptive use. Husband/partner decision-making and decisions made jointly proved to be an important determinant of contraceptive use compared to women making their own decisions.

Education was proven to be significant to contraceptive use when other variables were controlled for as well as having a significant association with contraceptive use. Also, more than half of couples with no education were not using contraceptives.

This shows that literacy improves the capacity of couples to be bold and approach contraceptives matters together and empowers them with respect to fertility related matters which can in turn enable them to practice their reproductive health rights.

Couples who wanted (more) children were shown to have the highest percentage use compared to those who did not want (more) children. This goes against expectations and it places those desiring no more children at a great risk of unintended pregnancies and, therefore, a group of which may have an unmet need for family planning. Couples from rich households had the highest contraceptive use while the poor women were the least using contraceptives. This should be worrying bearing in mind that the poorest women should be in the forefront in lowering fertility due to the relatively low economic comparative advantage.

From the study, it is evident that the participation of the husband/partner is of crucial importance in the contraceptive use of couples with reference to women making contraceptive use decisions. Whether making decisions jointly or husbands/partners making decisions without involving the women, the study proved that couples were more than 1.5 times more likely to use contraceptives compared to when women made contraceptive decisions. This strongly implies that the husband/partner is central to contraceptive use and should not be treated as peripheral to contraceptive matters affecting couples. Therefore, it is important for the husband/partner to be put in consideration when making programmes and policies to increase the uptake of contraceptives among couples in Kenya.

5.4 Recommendations

This section highlights recommendations deduced from the study to both policy makers and for further research.

5.4.1 Recommendations for Policy and Programmes

Decision-making is significantly related to contraceptive use among couples in Kenya and, therefore, the government and family planning stake holders should put concerted efforts to encourage joint decision-making for all genders in both rural and urban areas. Since the study has shown the significance of the husband/partner in contraceptive use, this will ensure sustainability of contraceptive use and discourage covert use.

There may be a need for family planning programming which emphasizes joint responsibility of couples in order to increase contraceptive use in the country.

From a policy perspective, the study findings suggest that encouraging a sense of equality in power relations among couples is visibly more effective than furthering autonomy of women when it comes to increasing contraceptive prevalence. Programs should focus on interventions aimed at improving a woman's capacity within the household to consult and negotiate for joint decision-making with her partner, among others decisions related to her reproductive health and fertility.

Family planning programmes and policies should incorporate decision-making, education level, desire for more children, wealth index and place of residence when developing policy interventions meant for increasing the uptake of contraceptives among couples in Kenya. These variables proved to be highly significant to contraceptive use and their inclusion in efforts to increase contraceptive uptake will be more helpful than not.

5.4.2 Recommendations for Further Research

Although the husband/partner and joint decision-making proved to be highly significant to contraceptive use, it would be crucial to conduct further research on the factors contributing to decision-making for contraceptive use among couples in Kenya. This should be done in order to bring out actual participation of women in the decision making process, whether it was done consensually or it was enforced. The tool used in collecting KDHS data did not have questions on attitude towards contraceptive use, decisions related to children, involvement of both partners in decision-making, decisional support for both partners and decisions related to socio-cultural and family relations which all presumably have an impact on contraceptive decision-making. Therefore, it would be important for additional smaller studies at either the national or county levels to be done in order to fill this crucial gap.

There is also need to investigate factors leading to observed minimal use of contraceptive use among couples who desire no more children. It was against expectations to find couples of childbearing age who did not want more children were not using contraceptive as much as those who wanted more. This will indeed confirm why there seems to be unmet need for contraceptive use among these groups for appropriate interventions to be put in place.

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