

**SCHOOL OF PUBLIC HEALTH
COLLEGE OF HEALTH SCIENCES
UNIVERSITY OF GHANA**



**FACTORS AFFECTING MALES' ACCEPTANCE OF THEIR FEMALE PARTNERS
USE OF MODERN CONTRACEPTIVES IN SEFWI WIAWSO MUNICIPALITY**

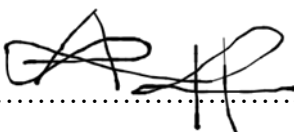
**A DISSERTATION SUBMITTED TO UNIVERSITY OF GHANA, LEGON, IN
PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE
MASTER OF PUBLIC HEALTH DEGREE**

**BY
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DECLARATION

I, Anthony Akpatsu, hereby declare that this dissertation is the result of my independent work. References to other works have been duly acknowledged. I further declare this dissertation has not been submitted for the award of any degree in this institution or universities elsewhere.


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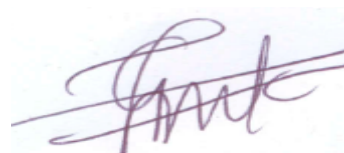
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Supervisor's declaration

I hereby declare that the preparation and presentation of the dissertation were done under my supervision per the guidelines on supervision of the dissertation laid down by the University of Ghana.


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DEDICATION

I dedicate this study to my mother, Elizabeth Akpatsu; and my sister, Agbezudor Theresa. The next dedication goes to my lovely wife (Charity Kpobi) and children (Akorfa, King-David, and Perez) for their support during the period of this study.

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My appreciation would not be complete without extending my warm gratitude to all the faculty members of the Department of Population, Family and Reproductive Health, School of Public Health, University of Ghana.

ABSTRACT

Introduction: Globally, fertility and family planning issues are often female-oriented and men are rarely involved in such discussions especially in Africa. However, understanding men's perspectives concerning the use of family planning services could provide an opportunity to improve modern contraceptive use among women of reproductive age. This study, therefore, sought to determine men's acceptance of modern contraceptive use by their female partners in the Sefwi Wiawso Municipality.

Methods: The study employed a cross-sectional quantitative survey design with a structured questionnaire as data collection instrument. A total of 532 men who were in the union for at least one year with a female partner were sampled to participate in the study. To select participants in the study, a multi-stage sampling design was used. Five sub-municipalities out of seven sub-municipalities in the first stage and four communities each out of five sub-municipalities in the second stage were selected using a simple random sampling method. Twenty-seven men who were in the union for at least one year with a female partner were selected at random in each community to constitute the unit of analysis. The data collected were entered in Microsoft Excel and analyzed using Stata version 15.0. Descriptive analysis and cross-tabulation were conducted to estimate the proportion of men who would accept their female partner's use of modern contraceptive. Bivariate and logistic regression analysis was conducted to determine factors associated with men's acceptance of modern contraceptive use by their female partners.

Results: Awareness of modern contraceptive was high (94.36%) among respondents. The majority (80.26%) of respondents were willing to allow their female partners to use modern contraceptives. After adjusting for other variables, locality, education, religion, and ever use of

modern contraception remained statistically significantly associated with men's acceptance of the partners' use of modern contraceptives ($p < 0.05$).

Conclusion: Males' acceptance of their female partners' use of modern contraceptive in the Sefwi Wiawso Municipality is high. A combination of modifiable and non-modifiable socio-demographic and community-level factors affects men's acceptance of their female partners' use of modern contraceptives. Interventions should be targeted at modifiable factors that influence men's acceptance of their female partners' use of modern contraceptives.

Keywords: Males, modern contraceptive, acceptance, fertility, reproductive age, family planning

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LIST OF ABBREVIATIONS

ERC	-	Ethics Review Committee
FP	-	Family Planning
FHD	-	Ghana Health Division
GHS	-	Ghana Health Service
GSS	-	Ghana Statistical Service
IUD	-	Intrauterine device
MHD	-	Municipal Health Directorate
PI	-	Principal Investigator
WHO	-	World Health Organization

DEFINITION OF TERMS

Reproductive age	All women between the ages of 15 and 49 years.
Contraception	Any concerted action or attempt at preventing pregnancy.
Contraceptive prevalence	The proportion of women of reproductive age who at a given point in time, use or whose partner is using a form of contraception.
Family planning	The willingness of individuals and couples to predict and achieve their ideal number of children and the spacing and timing of their births.
Modern contraceptive methods	Technologically assisted method of birth control.

CHAPTER ONE

INTRODUCTION

1.1 Background

Globally, the rate of fertility has declined from 3.2 births per woman to 2.5 between 1990 and 2019 (United Nations, 2019a). Despite this achievement, the fertility rate for Sub-Saharan Africa (4.6) is more than twice the global estimate (United Nations, 2019a). In 2019, 1.1 billion out of the 1.9 billion women aged 15-49 required family planning (United Nations, 2019a). Of the 1.1 billion women who need family planning, 842 million use modern methods of contraception and 80 million use conventional methods of contraception (United Nations, 2019a). There is still the issue of 190 million women who want to postpone pregnancy but are not using any sort of contraception method (United Nations, 2019a).

Of Sub-Saharan African's 257 billion women, 28.5% of women aged 15-49 use some forms of contraception (United Nations, 2019a).

The fertility rate in Ghana steadily dropped from 6.4 children per woman in 1988 to 4.4 children per woman in 1998, and subsequently decreased to 4.0 in 2008, similar to global fertility trends. (GSS, 2012). However, this trend increased to 4.2 in 2014 as reported by the Ghana Statistical Service (GSS, 2015). In 2017, the trend in fertility declined to 3.9 (GSS, 2017). Three out of ten (31%) Ghana's currently married women aged 15-49 use some form of contraception, and 25% use a modern method of contraception (GSS, 2017).

Family planning gives an individual ability to reach an optimal number of children decide the timing of births. To be able to achieve the number of children and birth spacing, couples would have to use a contraceptive method (Mutombo et al., 2014). The benefit of using modern

contraceptives does not lie only in better health for women but also help them to engage in productive activities (UNFPA, 2012).

Family planning helps women to bear children at the time when they are mentally, physically, social and economically ready for pregnancy (Mutombo et al., 2014). This increase the likelihood of children surviving and remaining healthy (UNFPA, 2012). Couples may be able to plan the number of children they could cater for. Financially, a couple may be able to manage their resources with the preferred family size they agree to have (Mutombo et al., 2014). Indeed, the benefits of using contraception cannot be overemphasized as the prevention of unwanted pregnancies could result in a decrease in maternal morbidity (WHO, 2012). By avoiding unintended pregnancy, contraception could protect mothers and children from dying (WHO, 2018). As a result, women and their current children could improve their health and well-being (UNFPA, 2012). According to the WHO (2018), contraception reduces the need for abortion, particularly for unsafe abortion.

Besides, it also helps in preventing pregnancy-related health complications in women, reducing infant mortality, and preventing HIV/AIDS infection and transmission are other advantages of family planning (UNFPA, 2012). The MATLAB-controlled long-term studies in Ghana and Bangladesh have also shown that better access to contraceptives and usage, decreased fertility, increased birth spacing, participation of women in a paid labour market, earnings and properties, and also improved schooling and body mass indexes of children (Canning&Schulz,2012).

Despite its benefits, family planning issues are often female-oriented and men are rarely involved in such discussions especially in Africa (Kabagenyi et al., 2014). In Africa, not only are men neglected in issues of family planning but also recent research suggests that most men have misconceptions about the use of modern contraceptives by their female partners and may

prevent them from using contraceptives. For instance, a study by Kriel et al. (2019) in South Africa revealed that while the behaviour of men towards the use of family planning methods is changing, most men lacked a clear understanding about family planning and contraception methods, their mechanism of action, and related side effects. In Ghana, less than 50% of men disagree with the statement “women who use contraception may become promiscuous” when they were asked in 2014 Demographic and Health Survey (MacQuarrie, Edmeades & Steinhaus, 2015). Adegbola and Habeebu-Adeyemi (2016) found in a study conducted in Nigeria that, only 50% of the men interviewed were willing to allow their wives to use contraceptives regardless of their socio-demographic characteristics. The above suggests that there are contextual issues affecting men concerning modern contraceptive use. When a man believes that allowing his female partner to use modern contraceptives would promote promiscuity, it will be difficult for the partner to initiate discussions around modern around the subject. Creating the enabling environment for women to freely discuss fertility issues with their male partners could however improve the acceptance rate of modern contraceptive (Kriel et al., 2019). This highlights a need to involve men in decision making concerning contraceptive use. As Kabagenyi et al. (2014) concluded, joint decision-making on reproductive health between couples that do not ignore the added value of the participation of men is urgently needed. Targeting men for effective promotion of modern contraceptive use may increase utilization (Zambou et al., 2014). It is for this reason that this study examined men’s acceptance of their female partner’s use of modern contraceptives in Ghana.

1.2 Problem Statement

In West Africa, the use of modern contraceptives among women remains a problem. According to the 2017 highlights from the World Family Planning report, contraceptive use was below 25% in Central and West Africa compared to middle and high-income countries, of above 70% (United Nations, 2017). According to the Ghana Demographic and Health Survey (GDHS), married or sexually active fecund females who want to delay their next birth for two or more years or who want to avoid childbearing but do not use a contraceptive method are considered to have an unmet need for family planning (GSS, 2015). Pregnant women are deemed to have an unmet need to space or limit their pregnancy (GSS, 2015). Similarly, amenorrhoeic women who do not use family planning and whose last birth has been mistimed are considered to have an unmet need for spacing, limit (GSS, 2015). The high levels of unmet needs highlight the importance of understanding factors that hinder the utilization of contraceptives fecund or sexually active women (Mutumba et al., 2018).

In this context, there will be a need to examine the contextual issues confronting the use of modern contraceptives. In Africa however, much of existing research has not focused on men. Literature shows that the promotion of male participation in family planning programs faces several obstacles. (Zambou et al, 2014).

From the Ghana Maternal Health Survey Report (2017), about 32.3% of women in the Western Region of Ghana had a non-medical abortion (GMHS, 2017). Prevalence of modern contraceptive use in the Western Region was about 27%. The commonly used modern contraceptive method is injectable, which constituted about 8.9%. Of interest is the percentage of women who are not currently using any method of contraceptives, which hovered around

67.7% in the region (GSS & GHS, 2018). According to the Sefwi Wiawso Municipal Health Directorate's Annual Report (2018), the uptake of family planning services is as low as 25.8%. While growing evidence shows that involving men in family planning will increase the contraceptive uptake of their female partner (Kabagenyi et al., 2014), empirical research on men's acceptance of their female partner's use of modern contraceptives in both Ghana and Sefwi Wiawso Municipality is limited. To fill the knowledge gap created by non-availability of information on this topic, and as well improve family planning correct rate in Ghana and Sefwi Wiawso, there is a need to examine how men view their female partners' use of modern contraceptives and the factors that affect their acceptance of female partners' use of modern contraceptives. This study, therefore, sought to determine men's acceptance of modern contraceptive use by their female partners in the Sefwi Wiawso Municipality. Also, to determine factors that are associated with their acceptance of their female partners to use modern contraceptives.

1.3 Research Objectives

1.3.1 General Objective

The general objective of the study was to determine men's awareness, and factors associated with their acceptance of modern contraceptive use by their female partners, in the Sefwi Wiawso Municipality.

1.3.2 Specific Objectives

The specific objectives of the study were to:

1. Assess men's awareness about modern contraceptive methods in the Sefwi Wiawso Municipality.

2. Estimate the prevalence of males' acceptance of modern contraceptive use by their female partners in the Sefwi Wiawso Municipality.

3. Examine factors associated with males' acceptance of modern contraceptives use by their female partners in the Sefwi Wiawso Municipality.

1.4 Research Questions

To achieve the research objectives, the following research questions were examined:

1. What is the level of men's awareness about modern contraceptive in Sefwi Wiawso Municipality?
2. What proportion of males would accept modern contraceptive use by their female partners in Sefwi Wiawso Municipality?
3. What factors are associated with males' acceptance of modern contraceptive use by their female partners in the Sefwi Wiawso Municipality?

1.5 Justification

Majority of studies that inform our understanding of contraceptive use among fecund or sexually active women have concentrated on individual and institutional level factors at the expense of involving or viewing the man as a client and important agent. It is therefore imperative to understand the contextual issues that would influence a man's decision to accept or refuse his female partner's use of modern contraceptives. The results from this study could help to generate evidence for understanding the factors that influence males' acceptance of their female partners' use of modern contraceptives. Understanding these factors could help the Ministry of Health in Ghana and other reproductive health stakeholders to develop programmes towards promoting greater uptake of modern contraceptives. Furthermore, understanding these challenges from the male partner's side may help to unearth some of the core FP programme

bottlenecks. Also, this research would add to the limited body of literature on men's acceptance of their female partners use of modern contraceptives in Ghana and beyond.

1.6 Chapter summary and research outline

This introductory chapter provided a background to the research and articulated the research objectives, questions and justification. The rest of the dissertation has been organized as follows. Chapter two looks at the literature review, focusing on the concept of modern contraception, types and trends in modern contraception use and the factors associated with men's acceptance of modern contraceptive use by their female partners. Chapter three provides details on methods for the study. Chapter four presents the results of the study while the findings of the study are discussed in Chapter five, taking into consideration the relationships between the current findings and other research works done on the subject in other places. The last chapter (chapter six) concludes with relevant recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews relevant literature on modern contraceptive use. The literature is reviewed under themes in line with the objectives of the study. Specifically, the review covers the concept of contraception and the history, types of modern contraceptives, trends in modern contraception use, trends in modern contraceptive use in Sub-Saharan Africa, trends in modern contraceptive use in Ghana, men's awareness about modern contraceptives, men's attitude towards modern contraceptives use, men's acceptance of their partners use of modern contraceptives and determinants of men's acceptance of their partner's contraceptive use. The chapter also outlines a conceptual framework for the study.

2.1 Concept of Contraception

Contraception could be understood as a deliberate action or attempt to prevent pregnancy (Hubacher & Trussell, 2015). The term also refers to a birth control mechanism that allows women to have control over birth spacing (Cleland et al., 2012). The use of family planning methods helps to avoid conception by averting the fusion of male and female gametes to form an embryo (Cleland et al., 2012). It mainly keeps the egg of the woman from the sperm, stops the production of eggs or stops fertilization of eggs (American College of Obstetricians and Gynecologists, 2014)

According to Knowles (2012), contraceptives have been used in different forms for thousands of years. Family planning has always been practiced widely among ancient people, even in societies that were dominated by social, political, or religious codes that frowned upon it (Quarini, 2005; Knowles, 2012). Some of the contraceptive methods used in ancient times were

celibacy, sexual taboos, abstinence, withdrawal(coitus interruptus), prolonged breastfeeding, and induced abortion (Quarini, 2005; Knowles, 2012).

They also used honey, palasha tree seeds and clarified butter as means of birth control (Knowles, 2012). Elephant dung and crocodile dung were reported to have been used by women of ancient Egypt and these substances were mixed with sweetened honey to control birth spacing (Knowles, 2012).

In the 19th Century, intrauterine devices emerged as an attempt to blocking the cervix by a scientist with metal pessaries (Quarini, 2005). Though they broke sometimes, it was still a successful contraceptive method (Quarini, 2005). The scientific foundation for all modern methods of family planning was instituted by the end of the First World War when the demand for family planning was strong as a result of changing social and family life (Quarini, 2005).

2.2 Types of contraceptives

2.2.1 Modern Contraceptives

Modern contraceptive methods are medical procedures or products designed to interfere with the reproductive system to prevent pregnancy (Hubacher & Trussell, 2015). Modern contraception methods are classified into two main domains: hormonal and non-hormonal methods. The hormonal methods are made up of two types of artificial hormones, namely estrogen and progestin formulations to interfere with the normal healthy functioning of a woman's fertility cycle. Some common characteristics or functions of hormonal contraception methods are averting the release of an egg from the ovary into the fallopian tube; preventing attachment of the fertilized egg into the endometrium, and thickening and altering cervical

mucus to prevent sperm migration (Trussell & Raymond, 2008). Examples of hormonal contraception methods are oral contraceptives, injectable progestin, skin patch, vaginal ring, progesterone intrauterine contraception, implantable form (Sivanandy, Israel, Medical, Thacker, & Clinic, 2014; ASRM, 2018).

Non-hormonal contraceptive methods are hormone-free methods, which include barrier methods and fertility awareness methods (Monson, 2012). A non-hormonal method of contraception protects against pregnancy without inducing a woman's usual hormones (Kaye, 2019; Smith, 2019). One characteristic of non-hormonal contraception is that it can be used together with hormonal methods to further assure protection. For example, condoms can be used together with a hormonal method to further protect against pregnancy and reduce the risk of exposure to sexually transmitted infections (Monson, 2012). What generally distinguishes between hormonal and non-hormonal methods of contraception is the unnatural interference with the natural hormones of a woman by the former (Visser et al., 2013). The intrauterine device (IUD), cervical cap, sponge, fertility awareness, male and female condoms, spermicides, diaphragm, male and female sterilization and coitus interruptus (withdrawal methods) are examples of non-hormonal contraceptive methods (Knowles, 2012; Monson, 2012; United Nations, 2019). The rest of this section discusses specific examples of modern contraceptive methods

2.2.2 Male condom

This is a thin case or sheath of latex, natural animal membrane, polyurethane, silicone, or any other synthetic substance worn over an erected penis

During ejaculation, the semen from the penis is averted from being deposited into the vagina and cervix (Monson, 2012). There is a small pouch at the tip of the condom which collects

semen and holds it until the condom is unfolded over the penis. The risk of unintended pregnancy for male condom use is 18% (Trussell, 2011).

The advantages of male condom include easy accessibility, very easy to use, readily available at every drug store, and its potentials to reduce the risk of STIs transmission, including HIV (Monson, 2012). However, there are some disadvantages of male condoms, which include occasional slippage and breakage, has to be used every time of intercourse, needs the cooperation of the male partner, and male sensation is reduced (Monson, 2012).

2.2.3 Female condom

This is a sheath of polyurethane or nitrile with a flexible closed ring at one end and an open ring at the other end (Monson, 2012). The female condom is coated with a silicone-based lubricant to lubricate the inside and outside of the condom (Monson, 2012). During ejaculation, the condom collects semen from the male partner thereby preventing it from entering the vagina and cervix (Knowles, 2012; Monson, 2012).

The closed end of the female condom is inserted into the vagina and positioned between the posterior fornix and the pubic bone (Monson, 2012). The exposed end lies outside the opening of the vagina.

The risk of unintended pregnancy for female condom is 21% (Trussell, 2011). The following are some of the advantages of female condoms. It is the only method of modern contraception for the women that have the potential of reducing the risk STIs transmission with HIV inclusive (Hubacher & Trussell, 2015; Monson, 2012). It is available over-the-counter; it is easily reversible; it could be inserted prior to intercourse to avoid interruption during sex; and it could even be used during menstruation (Hubacher & Trussell, 2015; Monson, 2012). Female

condoms are not without disadvantages. Vaginal discomfort, penile irritation, occasional breakage/slippage, and the fact that it is needed at every act of intercourse, are some of the known disadvantages of female condoms (Monson, 2012).

2.2.4 Male sterilization

Male sterilization, also known as vasectomy, is a permanent form of birth control (Monson, 2012). Its approach is extremely successful with 0.15 per cent rate of failure. (Trussell, 2011). The associated risk of male sterilization could include the possibility of reactions to local anaesthesia although reports say it is rare (Hubacher & Trussell, 2015), short-term tenderness and some bruising could occur, and the fact that it does not protect against sexually transmitted infections (STIs). Advantages of vasectomy include the following: it is a permanent contraception method and does not require any further action once done; it is unnoticeable or discreet; it has a low risk of side effects; the cost is paid once or up-front, hence no maintenance cost; it does not affect natural hormones; it is very effective, and recovery after the procedure is faster (Knowles, 2012; Monson, 2012).

2.2.5 Female sterilization

This method involves blocking the fallopian tubes of the female with either clips or rings, or cauterization (Monson, 2012). It is a surgical sterilization process of blocking the fallopian tubes (occlusion) and been in use for several years; it is considered safe and extremely effective with a low risk of complication (Monson, 2012). Its advantages include low risk of side effects, paid only once with no ongoing maintenance cost, non-interference with the hormonal milieu of the woman, and a long-term contraception method. Nevertheless, there are possible complications related to anaesthesia and surgery. Other disadvantages include the fact that it does not protect against STIs (Knowles, 2012; Monson, 2012).

2.2.6 Diaphragm

This is a flexible fluid or silicone dome-shaped device, which is inserted into the upper vagina layer of the cervix with filled spermicide (Monson, 2012; Stewart et al., 2013). It acts as a spermicidal barrier at the entrance of the cervix (Stewart et al., 2013). The size of the diaphragm ranges from 50 to 95 mm diameter and requires a prescription for the correct size to be fixed (Knowles, 2012; Monson, 2012). There are also disadvantages associated with diaphragm. It increases the risk of STIs and other vaginal infections, it requires a prescription from a healthcare provider; and it needs to be used in every act of intercourse (Monson, 2012; Stewart et al., 2013).

2.2.7 Spermicides

These are chemicals that are lethal to the sperm. They come in different forms such as suppositories, creams, gels, and foams (Monson, 2012). This method could be used alone or together with other barrier methods such as condoms. There is risk associated with spermicides. According to Monson (2012), the injury to the mucosa membrane of the vagina and the cervix may be associated with the use of spermicides with high or prolonged exposure (Monson, 2012). Also, there is a reported 28% risk of unintended pregnancy with spermicides (Trussell, 2011). Advantages of spermicides include their ready availability over-the-counter, easy application or use and a woman can stop using when she wants to get pregnant (Stewart et al., 2013). However, there are reported disadvantages associated with the use of spermicides such as lower efficacy compared with most other family planning procedures, increased risk of vaginal irritation and infection when it is used for a longer period, and the fact that it does not protect against STIs (Stewart et al., 2013; WHO, 2019).

2.2.8 Vaginal Sponge

The vaginal sponge is made of polyurethane containing 1 gram of spermicide nonoxynol-9 (Monson, 2012). On one hand, the sponge has a dent that fits over the cervix and a loop for removal on the other side (Monson, 2012; Stewart et al., 2013). Before using it, it has to be moistened with tap water, squeezed once to spread the spermicide uniformly, and inserted into the vagina with the dented side fitting against the cervix (Stewart et al., 2013). Some women experience vaginal dryness with the use of a sponge (Monson, 2012). Advantages of using the vaginal sponge include its relatively discreet nature, and a woman can easily stop using it when she wants to become pregnant (Monson, 2012; Stewart et al., 2013). Disadvantages associated with this method include increased risk of yeast infection, does not protect against STIs, and it has lower efficacy compared to some other methods (Monson, 2012; Stewart et al., 2013).

2.2.9 Cervical cap

The cervical cap is a small, bowl-shaped device with a strap for easy removal that fits over the cervix (Monson, 2012; Stewart et al., 2013; WHO, 2019). It creates or serves a dual purpose by creating both physical and spermicidal blockade at the opening of the cervix (Knowles, 2012; Monson, 2012). It has increased risk of bacterial vaginosis and vaginal candidiasis (Gupta, Hillier, Hooton, & Roberts, 2000). Advantages of the cervical cap include the fact that it is relatively unnoticeable and can be inserted ahead of intercourse and easy reversibility (Knowles, 2012; Monson, 2012; Stewart et al., 2013). Disadvantages include the fact that it requires a prescription; it may cause pain or discomfort during intercourse; it has to be used with every act of intercourse; and it has lower efficacy in women who have had a vaginal delivery (Stewart et al., 2013; Allison Linton, 2017)

2.2.10 Implant

Implant (etonogestrel subdermal implant) is a single rod progestin-releasing contraceptive which is placed under the skin to prevent pregnancy (Mark et al., 2013). The implant is inserted and removed by a trained provider, and it is effective for up to 3 years before you can remove it (American Society for Reproductive Medicine, 2018; Knowles, 2012). The hormones from the tubes block sperm from reaching the egg and prevent the release of the egg.

Advantages include the fact that it requires no further action or maintenance after insertion. Disadvantages of implants include possible changes in monthly bleeding, irregular bleeding, spotting, heavier bleeding or no monthly bleeding (Knowles, 2012; Stewart et al., 2013).

2.2.11 Oral contraceptives

Oral contraceptives are also referred to as birth control pills. They are safe and reliable for pregnancy prevention (Jin, 2014). Some different formulations and doses can be modified to suit different needs. Most of them contain a mixture of estrogen and progestin (Stewart et al., 2013; Jin, 2014). Oral contraceptives have some advantages, which include the following: it is highly effective, easily reversible and does not interfere with intercourse; it may reduce or eliminate menstrual flow and cramps, regulates the menstrual cycle, and decreases premenstrual symptoms (Stewart et al., 2013). Disadvantages include the fact that it may cause intermittent bleeding or spotting; it has to be taken every day and at the same period; other medications may reduce the effectiveness of the drug; it may cause breast tenderness, nausea, or headaches; and it does not protect against STIs (Knowles, 2012; Stewart et al., 2013; Jin, 2014;).

2.2.12 Injectable progestin

Injectable contraceptives contain progestin that is given as a shot every 12 weeks to prevent pregnancy (Knowles, 2012). It may take up to 12 months for a woman to start ovulating again after stopping (Knowles, 2012; Stewart et al., 2013; American Society for Reproductive Medicine, 2018). Advantages of injectable progestin include the fact that progestin may be suitable for women who react to estrogen; it may be appropriate for breastfeeding women, and maybe suitable for women over 35 years' old who smoke. Disadvantages include the fact that some women may have hormonal side effects as well as headaches, acne, change in bleeding pattern, breast sensitivity, unwanted hair growth, and mood issues (Knowles, 2012; Stewart et al., 2013; Veisi & Zangeneh, 2013).

2.2.13 Skin Patch

The skin patch contains a form of estrogen and progestin administered weekly for 3 weeks, followed by a patch-free week to avoid pregnancy (Knowles, 2012; Rafie et al., 2017; Stewart et al., 2013). Estrogen levels could be higher in women taking the patch than taking pills (American Society for Reproductive Medicine, 2018). The disadvantages of the method are that skin patch may cause blood clots and does not protect against STIs (Knowles, 2012; Stewart et al., 2013).

2.2.14 Vaginal Ring

The vaginal ring is a flexible, small ring containing both estrogen and progestin to prevent pregnancy (Knowles, 2012; Roumen, 2017). It is consistently used for 3 weeks, followed by a week without a vaginal ring (Roumen, 2017). It can be removed for a brief period for sexual intercourse (Knowles, 2012; Roumen, 2017). Advantages of using vaginal ring include its convenience to use because it requires the user to change it once every month; risk of

intermenstrual or irregular bleeding is minimized; and dysmenorrhea and menorrhagia are improved (Thomas, 2019). Disadvantages associated with the use of vaginal ring include severe headache, fatigue, mild tenderness of breast, and mild fluctuations of mood (Stewart et al., 2013; B. L. Thomas, 2019).

2.2.15 Intrauterine device (IUD)

The Intrauterine device is a small device that the doctor puts in the uterine cavity containing progestin to prevent pregnancy (Knowles, 2012; Stewart et al., 2013). It can be used for up to five years or withdrawn earlier (Knowles, 2012). IUD is inserted or removed by a trained healthcare provider. It can be put in right after a woman has a baby as well as at other times. It also does not require any additional action or maintenance after insertion. Its disadvantages include possible cramping and heavy monthly bleeding during the first few months of use; and it does not protect against STIs (RHRs, 2009; Stewart et al., 2013).

2.2.16 Traditional methods

Traditional methods of birth control are not associated with the use of an artificial or chemical substance. Examples of traditional methods of contraception are lactational amenorrhea, rhythm and coitus interruptus (Knowles, 2012; Stewart et al., 2013). These are discussed further below.

2.2.17 Breastfeeding method/Lactational Amenorrhea (LAM)

Women around the world have used lactational amenorrhea to space their pregnancies since the beginning of history (Knowles, 2012). Lactational amenorrhea prevents the release of an egg when a woman breastfeeds often, day and night (breastfeed fully or nearly fully) and gives no other food or liquids to the baby (Stewart et al., 2013). It is safe with no side-effects. However, less breastfeeding may initiate monthly bleeding and failure (Stewart et al., 2013).

2.2.18 Fertility awareness-based Method /Rhythm method

Fertility awareness-based methods, which are often referred to as “natural or rhythm” methods of family planning, are methods a woman uses to identify when she is fertile to abstain from sexual intercourse in her menstrual cycle (Burkhart et al., 2000). Advantages of fertility awareness-based methods include no side effect (no hormone or use of device needed), it has no health risk and it is inexpensive. However, it requires the support of the partner, it has a high failure rate, and does not protect against STIs (Thomas, 2019).

2.2.19 Coitus interruptus

This method is also known as “withdrawal”, where the male partner withdraws the penis from the vagina before ejaculation occurs (WHO, 2019). This approach allows a man to be able to identify when he is about to ejaculate and therefore remove his penis from the vagina or the external genitals of a woman in time. This method requires the man to be able to recognize when he is about to ejaculate and hence withdraw the penis from the vagina or the woman’s external genitalia in time (Jones & Lopez, 2014). Advantages of coitus interruptus include no associated cost, no need for planning, and above all, it is readily available (Monson, 2012). Disadvantages include the fact that it needs cooperation and self-control on the side of the man; it has lower efficacy with typical use compared to some other methods; it has to be repeated consciously with every act of intercourse; and it does not protect against STIs (Rogow et al, 1995).

2.3 Trends in modern contraceptive use

Global trends in modern contraceptive use have seen an increase in many parts of the world, particularly in Asia and Latin America (United Nations, 2019). Currently, 842 million women

use modern contraceptive methods out of the 1.9 billion women of reproductive age (United Nations, 2019). According to WHO (2018), globally, the use of modern contraception has risen slightly, from 54% in 1990 to 57.4% in 2015. In Asia, it has increased to some extent from 60% to 61.8%. Despite the above increment in Asia, the trend was different from Latin America and the Caribbean where it rather remained stable at 66% (WHO, 2018).

Recent data also shows that globally, 58% of married or in-union women of reproductive age were using a modern method of family planning (United Nations, 2017). Women who married or in-union were the most users of modern contraceptive (64%) in almost all regions of the world (United Nations, 2015). The use of modern contraceptives by men is a comparatively small subset of global contraceptive users. This is partly because modern contraceptive methods for men are limited to male condoms and sterilization (vasectomy) (Handelsman, 2019).

2.4 Trends in modern contraceptive use in Sub-Saharan Africa.

Modern contraceptive use has seen an improvement in sub-Sahara Africa comparing data from countries with five or more DHS rounds (Tsui, Brown & Qingfeng, 2017). The prevalence of use of any contraceptive method in Sub-Saharan Africa is 28.5% among women of reproductive age (15-49) (United Nations, 2019). The trend in modern contraceptives is expected to rise to 29% by 2030 (United Nations, 2017). However, trends in contraception use in neighboring countries such as Mali have not changed much between 1995 (5.0%) and 2012 (9.6%) among all women. There are similar progress made in Tanzania, Kenya and Uganda (Tsui, Brown & Qingfeng, 2017). Nevertheless, the increased use of modern contraceptives over the past thirty years may be due to changes in behavior in line with ongoing family

planning interventions (Bietsch & Bietsch, 2015). Despite this increase, modern contraceptive use in Africa remains the lowest compared to all other regions (United Nations, 2017).

2.5 Trends in modern contraceptive use in Ghana

According to the 2014 GDHS report, fertility over the past twenty-six years has seen a drop of two birth per woman (from 6.4 children per woman in the 1988 GDHS to 4.2 in the 2014 GDHS) (GSS et al., 2015). Despite this improvement, the desire for more children for both males and females still abound for adult Ghanaians. The preference for a big family size among all women and all men stood at 4.3 and 4.5 respectively among those aged 15-49 (GSS et al, 2015). The desire to have a big family size may thwart efforts being made through the implementation of reproductive health programmes. Unmet needs of women who are not using any form of contraception but would want to delay pregnancy are high in Ghana (GSS, 2015a). It is estimated that about 30% of currently married women have an unmet need for family planning services with 17% having an unmet need for birth spacing and 13% having an unmet need for limiting (GSS et.,2015; Guure et.,2019). According to the 2014 GDHS report, about 27.1% of women were using any method of contraception and 23.3% were using any modern method in the Western Region of Ghana (GSS, 2015b).

2.6 Men's awareness and knowledge about modern contraceptives

The need to involve men in contraception use by their partners cannot be overemphasized. Men's awareness and knowledge about modern contraception methods may improve the acceptance rate by their female partners (Ezeanolue et al., 2015). In a study conducted in Uganda, it was found that men received information about family planning from a wide range of sources: mass media, healthcare providers and their partners (Thummalachetty et al., 2017). The same study found that misconception about contraceptives was very common among men,

which may hinder their use by their female partners (Ibid). In another study, almost all the men (91%) reported that they have ever heard of a family planning method (Dougherty et al., 2018). In the same study, about 49% of men reported hearing about some side effects of family planning method. In a study conducted in Ethiopia by Berhane et al. (2011), all the men interviewed had ever heard of family planning and 56% of them knew about the side effects of family planning methods (Berhane, et al., 2011). There may be the possibility that, if men become aware of the various methods and possible discomfort associated with contraception methods, they may approve the use of modern contraception by their female partners.

2.7 Awareness about modern contraception among men in Ghana

Awareness about modern contraception is generally high among men in Ghana. In a study conducted in Dunkwao-on-offin District in the Central region, all the men interviewed had heard about contraceptives (Ossou, 2008). A study conducted in the Ho Municipality in the Volta region found that 96.3% of the men interviewed had ever heard of modern contraceptive (Sunnu & Adatara, 2016). A study conducted in the Anomabu community in Cape Coast also established that 89.9% of the men interviewed had ever heard of a contraceptive method (Armah-Ansah, 2018). Another study conducted in Kintampo in the Bono East region reported 97.7% awareness of any contraception method among men (Nuamah et al, 2015). Almost all the studies identified radio, television, social events, friends, shops, and magazines as the medium through which males heard about contraceptives (Atuahene et al., 2016; Grindlay et al., 2018; Nuamah et al., 2015).

2.8 Men's attitudes towards modern contraceptives use

The attitudes of men towards the use of modern contraceptive vary in context. In some countries, many men still believe that contraception would make women promiscuous

(MacQuarrie, Edmeades, and Steinhaus, 2015). However, a study conducted among women and men in Iran showed that 84.1% of the men interviewed had a positive attitude towards family planning programmes and hence recorded a 66.6% participation rate among men (Bani et al., 2014). Another study conducted in Egypt reported 54.9% positive attitude among husbands in El-Mansheah ElKobra village, El-Qusiya District, Assiut Governorate (Hamed et al., 2018). A study in Jordan reported that 73.3% of men disagreed that, having more children is proof of fertility for women (Hamed et al., 2018). The results from the study also revealed that 75% of the men included in the study disagreed that masculinity does mean having more children (Hamed et al., 2018). In another study conducted in Nigeria, 68.1% of the men interviewed felt that decision on the use of contraception should be the sole responsibility of men (Fleming et al., 2019).

2.9 Attitudes of men towards modern contraceptives use in Ghana

The result of a study conducted in the Volta Region of Ghana showed that 45% of men perceived that contraceptive is harmful to the womb (Sunnu & Adatara, 2016), and 35.5% believed that contraceptive would increase the weight of women and could make women infertile respectively (Sunnu & Adatara, 2016). From the same study, about 30.3% of men also perceived that contraception is against the will of God. In another study in the Greater Accra Region of Ghana, 53.5% of men thought that women who use contraceptives could become promiscuous, and another 54% assumed that contraceptives were harmful to women's health (Grindlay et al., 2018). On the contrary, results from a study conducted in the Anomabu community in Cape Coast reported that 52.6% of men believed that contraceptive improved health and care for children (Armah-Ansah, 2018). The study also reported that 40.6% of the men interviewed believed that contraceptive was meant for birth control, and a few others

believed that contraceptives prevent disease and pregnancies (Armah-Ansah, 2018). Overall, the attitude of men towards modern contraceptive use in Ghana is generally negative, which may have policy implication for reproductive health.

2.10 Men's acceptance of their partners use of modern contraceptives

Much research has not been done to assess men's acceptance of modern contraception use by their female partners across the globe. A study conducted in Nigeria by Kabagenyi et al. (2014) sought to find out how many men would allow their female partners to use modern contraceptives. The study found that about 50% of males were willing to allow their female partners to use modern contraception (Kabagenyi et al., 2014). The other 50% who did not allow their partners to use modern contraceptive were of the view that their women will become younger and nice and because of that, they would be taken away by some young men. Others were of the view that their women would become promiscuous especially when they stop giving birth and hence become nice (Kabagenyi et al., 2014). However, in another study conducted in Ethiopia, about 80.9% of men approved the use of family planning methods (Berhane et al, 2011). In the same study, 33% of the respondents reported that they were the sole decision-makers in their families (Ibid).

To increase male acceptance of contraceptive uptake by their female partners, there is a need to assess men's belief and perceptions about modern contraceptives. According to Ezeanolue et al. (2015), focusing on men's attitudes could potentially increase the opportunity to: 1) explore ways to increase uptake and continuation of family planning methods; 2) increase or decrease the proportion of pregnancies that are intended; 3) reduce maternal and infant morbidity and

mortality associated with unintended pregnancy; and 4) prevent mother-to-child transmission of HIV while also improving health outcomes of women of reproductive age.

2.11 Men's acceptance of modern contraceptive use by their female partners in Ghana.

The literature on men's acceptance of contraceptive use by their female partners in Ghana is scanty and mostly solicited from women rather than men themselves. In a study conducted by Asiedu et al. (2019) among married women in Ashaiman, about 64.5% of the women said their partners or husbands decided the use of modern contraception. Another study conducted by Coomson and Manu (2019) among postpartum mothers in Tema municipality found that postpartum women whose partners approved of the use of modern contraception had an 18.1 higher odds of using contraceptive compared to women whose partners' did not [AOR=18.1(95% CI:6.3-51.6)] (Coomson & Manu, 2019). On the contrary, a study conducted in the Asuogyaman district of Ghana found that only 18% of women reported that their husbands or partners approve of modern contraceptive use (Teye, 2013) (June & Teye, 2018). From the same study, 65.8% did not know whether their husbands or partners approve of the use of modern contraceptive. This suggests a lack of spousal communication among those women (Teye, 2013).

2.12 Factors associated with male's acceptance of modern contraception use

The literature on independent factors that may influence men's acceptance of modern contraceptive use by their female partners is rarely available. Most of the reviewed literature on modern contraception and its associated determinants of use and approval comes from female partners. On this note, this review is handicapped in terms of reviewing factors associated with

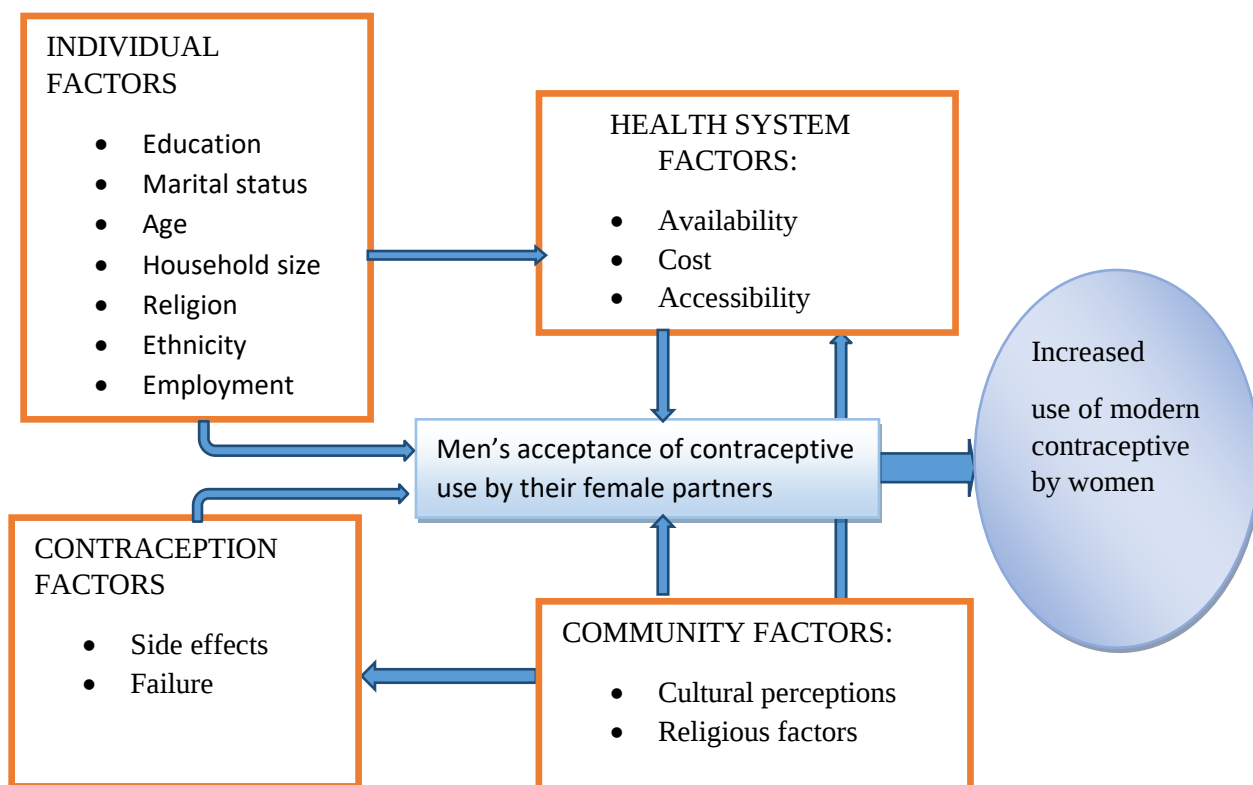
men's acceptance of modern contraception use by their female partners. Therefore, the review is highly dependent on determinants of modern contraceptive use by men as a proxy for acceptance of modern contraceptive by female partners.

A study conducted in Kenya reported that fertility preference of men, the number of sexual partners, place of residence, marital status of men, wealth, religion and access to information through the media were factors that were associated with the use of modern contraceptives among sexually active men (Ochako et al., 2017). Furthermore, Kabagenyi et al. (2014) found an association between use of modern contraceptive by men and education, wealth index, age, number of surviving children, fertility preference and region or place of residence. Having discussions on family planning with a healthcare provider was also found to be associated with the use of modern contraceptives by men as reported by (Kabagenyi et al., 2014). In Kenya, similar results were obtained by (Ochako et al., 2017), where men who were having more than one sexual partner were more likely to report using modern contraceptives compared to those who had one. Marital status and access to media were also found to be associated with the use of modern contraceptives (Ochako et al., 2017).

In Ghana, a study reported that education and multiple sexual partners have a significant association with modern contraceptive use among men (Butame, 2019). In the same study, men who reported having any form of education were more likely to use modern contraceptives compared to those with no education. Understanding the factors that influence the use of modern contraceptive may have positive impacts on the design and the implementation of reproductive health programmes.

2.13 Conceptual Framework

Figure 1 shows the conceptual framework of the study. It illustrates the relationship between the outcome variable (i.e. men's acceptance of modern contraceptive use by their female partner) and the independent variables. This framework is the researcher's construct of how the independent variables could influence men's acceptance of modern contraceptive use by their female partners. Due to the gap in the literature on the subject, the author had to conceptualize possible factors that may predict the outcome. The independent variables are grouped into individual factors, contraceptive factors, health system factors, and community factors as demonstrated in Figure 1 and discussed below.



Author's construct, 2020
Figure 1. Conceptual framework

2.13.1 Individual factors

The individual factors are made up of the socio-demographic characteristics of respondents. Some of these factors include education, marital status, age, household size, religion, ethnicity, and employment status. For example, the marital status of a man could influence his acceptance level of modern contraceptive use by the partner. The length of the union or relationship of a couple is more likely to affect how soon a couple may want to have children. As the number of children increases, they are less likely to continue having more babies. For couples who are cohabiting, there is a high tendency to delay or avoid pregnancy.

The age of a man could also influence their decision to accept the use of modern contraceptives. The likelihood of a young man between the ages of 18 to 30 accepting his female partner's use of modern contraceptive may be challenged by the number of children they each anticipate. However, young men are more likely to be exposed to contraception information through the media and may know when and how best to use them. Older men may be less likely to accept their partners' use of modern contraception because they may have limited information about them. Also, the desire for more children or large household size could influence a man's decision to accept or refuse the use of modern contraceptive by his female partner. Household size may be a good predictor of whether or not a man would accept that his female partner uses a modern contraceptive. This is more likely to be evident in rural areas where childbearing is deemed prestigious (Ware, 1978; Behjati-Ardakani, Navabakhsh, & Hosseini, 2017).

The religion of a man may be a good determinant of whether he would allow his female partner to use modern contraceptives. Many religious sects in Ghana tend to shape their followers. There are certain principles and values embedded in certain religions that prohibit certain aspect of contraception use. Religion has been documented to have an influence on contraception and some men are reported to believe that contraception would make their partners promiscuous (Srikanthan & Reid, 2008; Sundararajan et al., 2019). The relative importance of religion in influencing men's acceptance of modern contraception use by their female partners makes it an important variable to be studied.

Ethnicity could influence one's decision to accept or refuse to accept the use of modern contraceptive (Obasohan, 2014; Lahren, 2016). Ethnic groups may have a different orientation towards contraception and it is, therefore, necessary to investigate whether it affects the acceptance of men to allow their partners to use modern contraceptives. This would help FP programmers to develop interventions to specifically serve the needs of a particular group of people or society.

Finally, the employment status of a man could influence his decision to either accept or refuse the use of modern contraceptives by his female partner. Many studies found an association between the employment status of women and contraceptive use (Ali et al., 2004; Islam, 2016). The current study aims to find out if this is the case for men.

2.13.2 Health system factors

The health system of a country could be an influential factor in the assessment of family planning or contraceptive programs in the country. Several factors may affect the free

implementation of contraception programs. The six building blocks of the health system could promote or retard the progress of programs targeted at improving the lives of people especially women. For instance, the availability of modern contraceptive commodities could influence a man's decision to allow or refuse the use of modern contraceptive by their female partners. If contraceptive commodities are readily available and in constant supply, the tendency for utilization may be enhanced.

In addition, the cost of contraceptive commodities may be a good predictor of acceptance of modern contraceptive use. Willingness to pay may hinder the use of modern contraceptive: at what price are subscribers willing to pay for a contraceptive method? The lower the cost of a commodity, the more likely usage may improve.

Besides availability and cost, how accessible contraceptive commodities are could affect whether a man would accept or refuse his female partner's use of modern contraceptives. Many family planning programs are promoting the use of modern contraceptives, but how are these commodities or consumables accessed? Could other factors such as distance affect or influence a man's decision to allow his female partner to use modern contraceptive?

2.13.3 Contraception factors

The different methods of contraception may also have their pros and cons and could determine whether a man would accept or refuse his female partner's use of modern contraceptive methods. For instance, it has been reported by Adelekan et al. (2014) that, the side effects of contraception hinder the uptake of modern contraceptives. Most men according to literature, do

not allow their female partners to use modern contraceptive due to its side effect (Adelekan et al., 2014).

Failure of a particular contraceptive method may affect the acceptance of modern contraceptive use by couples (Ali et al., 2004; Islam, 2016). When couples depend on a particular method of contraception and it fails them, they may not be willing to continue to use it. Contraception failure has been reported to contribute to unintended pregnancies (Ali & Cleland, 2012).

2.13.4 Community factors

Community-level factors such as exposure to mass media may influence men's acceptance of modern contraceptive use by their female partners (Mutumba et al., 2018). In particular, community cultural perceptions may affect a man's decision to accept or refuse the use of modern contraceptive by their female partners. Similarly, taboos that conflict with the promotion and use of modern contraceptives could have negative effects on the acceptance and utilization of modern contraceptive use.

In conclusion, the individual factors outlined above may influence the health system factors in the sense that, one's educational level may influence their health-seeking behaviour. Again, employment status, age and marital status may also influence one's approach towards the health system (Ali et al., 2004; Islam, 2016). If the person or the household is having limited resources, they may not be able to access healthcare when they are in need.

Community factors such as cultural norms may also influence the health system (Obasohan, 2014; Mulat, Alem, Woyraw, & Temesgen, 2019). Some religious bodies may have different orientations toward the use of contraception by their members. This may affect the uptake of contraception. Cultural demands of people may also affect the health system since society is governed by norms and taboos which may conflict with contraception.

Furthermore, community factors may also affect contraception factors. Certain norms or taboos may be strictly against the use of contraceptives. Contraception failure and side effect may also affect ones' intention to accept or not to accept the use of modern contraceptive by his wife or female partner. This may increase use of modern contraceptive by women.

2.14 Chapter summary and gaps in the literature

The concept of contraception, types, associated advantages and disadvantages have been reviewed in this chapter. Furthermore, global and local trends of contraceptive use have been reviewed. The review identified insufficient literature on men's acceptance of their female partners' use of modern contraceptives and its associated factors not only in Ghana but across the world. Other gaps were knowledge of side effects of modern contraceptive among men and male targeted family planning programs. There is, therefore, a need to examine the factors that are associated with men's acceptance of modern contraceptive use by their female partners.

CHAPTER THREE

METHODS

3.0 Introduction

This chapter is devoted to describing the methods and procedures used in carrying out this study. The study design, location, sampling, data collection and analysis methods and ethical issues are discussed in this chapter.

3.1 Study design

The study employed a cross-sectional quantitative survey design. This design was ideal for the study since it allowed both the exposure and outcome variables to be measured at a single point in time. Moreover, it was relatively inexpensive and faster to be conducted compared to the others.

3.2 Study location/Area

The study was conducted in the Sefwi Wiawso Municipality in the Western North Region of Ghana. The municipality lies in the North-Eastern part of the Western North Region between latitudes 6°N and 6° 30'N and Longitudes 2° 45'W and 2° 15'W and covers a total land area of 1,1011.6 sq. km (see figure 2) (Ghana Statistical Service, 2013). The total population of Sefwi Wiawso Municipality reported by the Ghana Statistical Service during the 2010 Population and Housing Census (PHC) was 139,200. The 2010 PHC shows the male population as 50.1% (69,753) and the female's to be 49.9% (69,477), which are slightly higher than the regional average for both males and females. The sex ratio for the municipality is 104 males per 100 females. The municipality has a total household size of 4.5 persons per household (Ghana Statistical Service, 2013).

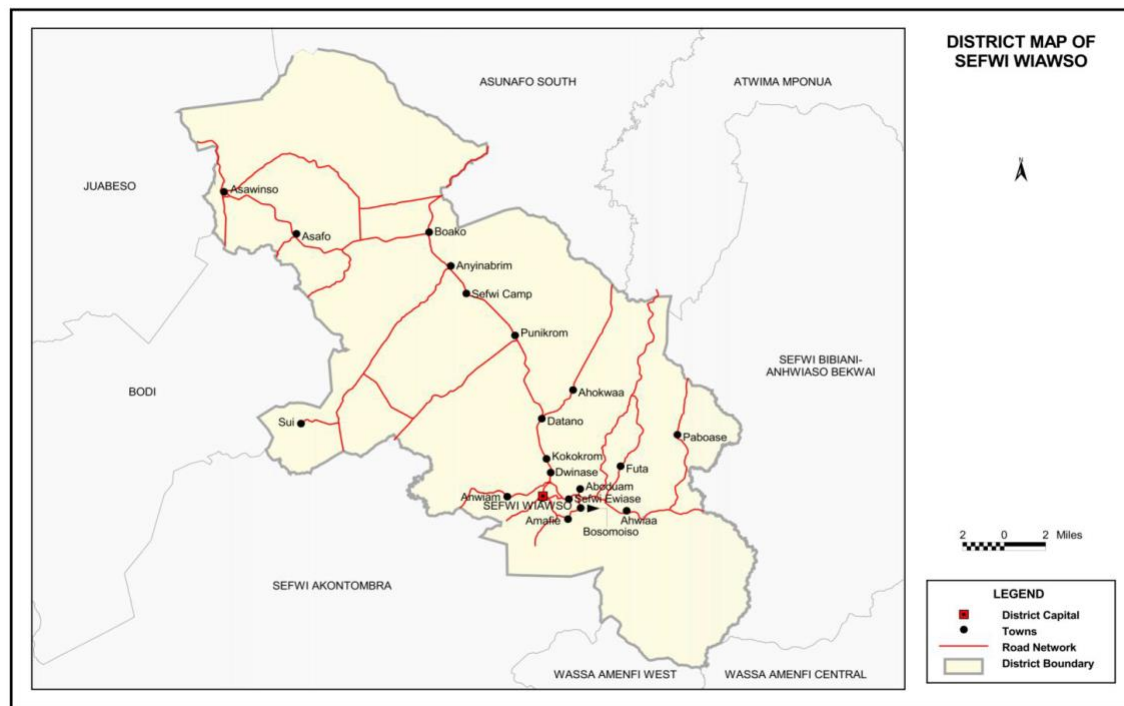


Figure 2: Map of Sefwi Wiawso Municipal area

Source: Ghana Statistical Service, October, (2014)

About 48.4% of the population are married and a little above 40% have never been married.

About 6% are either separated or divorced (Ghana Statistical Service, 2013).

The dominant occupations of the area are trading, agriculture, forestry, and fishery (67.1%).

About 3.6% of the remaining working-class are professionals who mainly serve as managers and office clerks (Ghana Statistical Service, 2013).

The municipality has a total fertility rate of 3.7, suggesting an average of 4 children per a fecund woman aged 15-49 years.

In terms of health, there are 45 functional Community-Based Health Planning and services (CHPS) compounds in the municipality and three Hospitals, which serve the municipality.

3.3 Study population

The study population for this research were men in union with a female partner within the Sefwi Wiawso Municipality. Men in union with a female partner refer to men who were married or cohabiting in a formal or informal relationship and were sexually active.

3.3.1 Inclusion criteria

- Men who were 18 years or above and in a union for at least one year with a female partner within the Sefwi Wiawso Municipality. All men aged 18 years and above who were in a union for at least one year with a female partner.

3.3.2 Exclusion criteria

- Men who were eligible to be included in the study but were either sick at the time of or were not mentally capable of giving informed consent were excluded from the study.

3.4 Sample Size Determination

The sample size was estimated using Cochran's formula (Cochrane, 1977) for estimating sample size for a single population. The formula is denoted as follows:

$$n = Z^2 pq / e^2$$

where:

e = the desired level of precision (i.e margin of error =0.05)

p = the (estimated) proportion of the population which has the attribute in question. In this study, it was assumed that 50% of men will accept their female partners' use of modern contraceptive as found in a study by Adegbola and Habeebu-Adeyemi (2016) in Nigeria.

$$q = 1 - p$$

Substituting the assumptions above into the equation;

$$n=1.96^2*0.50*0.62/0.05^2$$

$$n=3.84*0.50*0.62/0.25$$

$$n=476$$

To cater for non-response, 10% upward adjustment was made to the estimated sample size. The final sample size was thus 532.

3.5 Sampling procedure

The multi-stage sampling design was employed to select the participants. Five sub-municipalities out of the seven existing sub-municipalities were randomly sampled at the first stage (Sefwi wiawso main town was considered as urban whiles the communities under the sub-municipalities were considered rural for the purposes of this study based on the population. To do this, the names of all the seven sub-municipals were written on pieces of paper and put in a box. An independent person then picked five names at random without replacement.

Four communities each were selected from each of the five sub-municipals using simple random sampling method in the second stage. The names of all communities in the selected sub-municipalities were again written on pieces of paper and shuffled in a box, and an independent person then picked at random four communities.

After selecting the 20 communities across all five sub-municipalities, the total sample size of 532 was divided equally among the 20 communities. This gave an average of 27 respondents in each community. Following this, a simple random sampling technique was applied to select houses, households and individual respondents. First, houses in each community were sequentially given special numbers (e.g. H1 = the first house, and H(n) = the last house). Following this numbering of houses in each community, a computer-based number generator software was used to randomly select 27 houses from each community. The selected houses

were then identified through the support of research assistants and community informants. Where a selected compound (a compound is a habitable place where people live) had only one household (a household is a group of people who see themselves as one, who refer to one of them a leader who usually is responsible for them, share common sleeping and eating arrangements (eats from the same pot), and could be either related by blood or not) with only one male who met the inclusion criteria, that household was included in the study. But, if there were more than one man in the selected household, a simple random sampling technique was used to select only one man. This is done by giving each man a number (e.g. 1- 3). These numbers were written on pieces of paper, folded and kept in a bowl. At random, one piece of paper was chosen and the man corresponding to the selected number was invited to participate in the study. Second, where there was more than one household with men who met the inclusion criteria, a simple random technique was used to select one household out of the total number of households within the selected house which had adult males who met the study's inclusion criteria. Finally, if no male adult in the selected house met the inclusion criteria, the house was replaced with the next house.

3.6 Data Collection Techniques/Methods and Tools

A structured questionnaire was designed and used to collect the data. Trained research assistants were engaged to conduct face-to-face interviews. The questionnaire was developed in English and explained to the participants in the local languages (*Twi or Sefwi*) which are widely spoken within the municipality (the translation was written and practiced among the researchers to ensure that interviews communicate the same information). The data collection was paper-based.

3.7 Data collection instrument

The data collection instrument was adapted from the Demographic and Health Survey (DHS) standard questionnaire for a reproductive health survey. Few modifications were made to the adapted set of questions to suit the context of this study. The instrument was made up of seven sections: socio-demographic characteristics of respondents, awareness about modern contraception, modern contraceptive use among men, access to contraceptive & attitude of men towards modern contraception, factors influencing men's acceptance of modern contraceptive use by their female partners, preferred family size, male support for contraception and family planning, and health system factors.

3.8 Quality Control

To ensure data quality, the following quality assurance measures were implemented.

3.8.1 Training of field staff

Four research assistants were trained to collect data. The data was collected by nursing training students who had completed their programme. The training lasted for three days. The training was facilitated by the Principal Investigator (PI) under the guidance of the academic supervisor (Dr John K. Ganle), who has vast experience in the conduct of research in the area of contraception. The training equipped the research assistants with the requisite skills in data collection and interview techniques.

3.8.2 Pre-testing of data collection tools

To ensure the study's tool was appropriate for use in collecting the needed information, the data collection instrument was pre-tested. The pre-testing took place at Asawinso, a suburb of the central business municipality of Sefwi Wiawso, which has similar characteristics as the rest of the sampled communities. The area was excluded from the final sampling frame. The feedback

obtained from the pre-testing exercise was used to revised the questionnaire for easy understanding by all categories of respondents. Newly identified questions of interest were considered and added to the existing questions.

3.8.3 Supervision of fieldwork

Before the commencement of the data collection, all research assistants were informed that their work would be monitored. The PI followed research assistants in the first two days of the data collection period. This was to ensure that research assistants adhered to laid down rules that govern the data collection. After the first two days, the data collection team met every two days to submit and report issues/problems. Frequent phone calls were made to provide support to research assistants. The supervision was structured this way to ensure the effectiveness of the data collection process. The PI ensured that the field workers followed the procedures and techniques in which they were trained. Ethical standards were kept to ensure that participants were not coerced into participating.

3.8.4 Data entry

The data was double-entered into Microsoft excel template. The data entering screen was password protected. Range and consistency checks were run to ensure that data quality was assured. Generated queries were sent back to the field for rectification.

3.9 Data Processing and management

The data collected was processed and managed by a data manager. Restrictions and skip patterns were applied in the design of the data entry screen to ensure that, the right information was entered. Wrong information entered at wrong fields were rejected as a query for resolution.

The data were managed using Microsoft FoxPro version 9. The data was cleaned before exporting into STATA version 15.0 for analysis.

3.10 Study Variables

3.10.1 Dependent variable

Men's acceptance of modern contraception use by their female partners is the dependent variable. One main question was asked to determine whether or not a male partner would accept his female partner's use of modern contraception. This was coded as a binary outcome variable where 1 equal to 'Yes' for those who said that they will accept their female partner's use of modern contraception, and 2 equals to 'No' for those who said they will not accept their wives to use modern contraceptive methods.

3.10.2 Independent variable

Socio-demographic and economic characteristics of the respondent (age, residence, ethnicity, education level, marital status, religion, size of household, the preferred number of children, wealth status, years married/relationship and employment status); respondents' knowledge on modern contraceptive, and use; cultural and religious perceptions; side effects of contraception; health system (availability, cost, and accessibility), number of sexual partners in the last twelve months, the attitude of providers, ever discussed contraception with a partner, ever received education about contraception by a health worker, and Household wealth (Household wealth was computed using household assets such ownership of Television, radio, car, tractor, motorcycle, fridge, cupboard, mattress, building infrastructure and material use, and farming both animal and crop) were the independent variables that were considered in this study.

3.11 Data Analysis/Statistical Methods

Both descriptive and inferential statistical analysis of the data was performed. For the descriptive statistics, it consisted mainly of frequencies and cross-tabulations to describe important characteristics of respondents. For the inferential analysis, chi-square test and multivariate logistic regression analysis were performed. All variables that were significant at the bivariate level were adjusted for in multivariate logistic regression analysis at a statistical significance level of 0.05 at 95%.

3.12 Ethical Issues

3.12.1 Ethical approval

Ethical clearance was obtained from the Ethics Review Committee of the Ghana Health Service (GHS-ERC 075/03/20). In addition, administrative approval was sought from the Traditional leaders of the area and the Municipal Director at the Municipal Health Directorate before respondents were selected and interviewed.

3.12.2 Informed consent

Written informed consent was obtained from each respondent prior to the interview. The informed consent form contained names and telephone numbers of the PI and the administrator of the Ghana Health Service Ethics Review Committee. There was a consistent review of the informed consent form with respondents by the interviewer before all interviews. Respondents were asked to sign or thumbprint the informed consent form before any interviews were conducted. Respondents were informed of the rationale of the study, the procedures, and length of the interview. All information was in a language that respondents comprehended. For respondents who were not able to read or write, a third person who was known to the respondent served as a witness. This was done to ensure that, respondents were not coerced into

accepting to be part of the study. Both English and Sefwi of the people were used in the consenting process. A copy of the signed consent form was given to each respondent and another copy kept by the lead investigator for future reference.

3.12.3 Confidentiality

The confidentiality of all respondents was protected. Respondents names were not identified on any survey questionnaire or any other documentation. All study records were kept under lock and key. Respondents' names were omitted from the report and possible publications that may result from data collected in this study.

3.12.4 Privacy

The privacy of all the respondents was ensured. Interviews were conducted in a secure environment to assure maximum privacy of respondents in addition to being convenient to every member. Neither the name or address of respondents was used to identify them.

3.12.5 Benefits

The respondents were told that there would be no direct benefits from participation in this study. However, they were made aware that, the information that they provided may help improve men's acceptance of their female partners use of modern contraceptives.

3.12.6 Risks

No biological samples were collected, and for that matter, respondents were not exposed to any physical danger apart from the time they spent answering the questions.

3.12.7 Right to withdrawal

Participation in the study was purely voluntary, and respondents were made aware of their right to choose not to take part in the study, withdraw consent at any time, and refuse to any question in the process of the interview if they so wish. They were informed that their decision not to participate in the study will not affect them in any way.

3.12.8 Data management and protection

Data from this research were entered into access-controlled and password-protected computers. No names or anything that can be used to identify respondents were written on any documents. Apart from the PI, his academic supervisor and members of the Ghana Health Service Ethics committee (based upon request), no third party had access to the data.

3.12.9 Compensation

Respondents were not given money for their participation in this research.

3.13 Chapter summary

The methods used for this study have been described in this chapter. Data management processes and how the outcome variable was measured. The type of statistical analysis and the analytical tool used for the analysis have also been discussed. The next chapter discusses the results.

CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter presents the results of the study which covers the socio-demographic characteristics of respondents, men's awareness about modern contraceptives, the prevalence of men's acceptance of their female partners' use of modern contraceptives, and the factors associated with men's acceptance of their female partners' use of modern contraceptives.

The chapter concludes with a summary of key findings.

4.1 Background characteristics of respondents

All the 532 respondents completed the questionnaire. Table 1 shows the background characteristics of the respondents surveyed. Respondents between age 31-40 years formed 42.29% making them the highest bracket of. On education, 31.2% of respondents had attained Junior High School education, followed by Senior High School (29.1%). Approximately 10.9% of the respondents did not have formal education.

Majority of the respondents were from rural localities (79.89%) and associated themselves with Christianity (77.63%) followed by Islam (11.47%). Akans formed the majority (69.36%). Majority of the respondents were married (69.36%), while 29.51 per cents were co-habiting. In terms of occupation, the majority (53.95%) of the respondents were either farmers, labourers or domestic workers.

As regards household size, the majority (50.94%) of the respondents had seven or more household members. In terms of wealth, 20.11% of the respondents fell within the first quintile (i.e. the poorest), while 19.92% fell within the richest wealth quintiles.

Table 1: Background characteristics of the respondents

Characteristic	Frequency (N=532)	Per cent (%)
Age		
19-30	155	29.14
31-40	225	42.29
41-49	152	28.57
Education		
None	58	10.9
Primary	58	10.9
Junior High School	166	31.2
Senior High School	155	29.14
Tertiary	95	17.86
Locality		
Rural	425	79.89
Urban	107	20.11
Religion		
Christian	413	77.63
Moslem	62	11.65
Traditionalist	51	9.59
Other	6	1.13
Ethnicity		
Akan	369	69.36
Ewe	61	11.47
Ga	41	7.71
Guan	38	7.14
Dagarti/Kusaase	18	3.38
Other	5	0.94
Marital Status		
Married	375	70.49
Co-habiting/Living together	157	29.51
Occupation		
Professional/Civil servant	86	16.17
Businessman / tradesman	159	29.89

Farmer/labourer/domestic worker	287	53.95
Household Size		
1-3 members	105	19.74
4-6 members	156	29.32
7+ members	271	50.94
Wealth Status		
Poorest	107	20.11
Poor	106	19.92
Medium	107	20.11
Rich	106	19.92
Richest	106	19.92

4.2 Men's awareness of modern contraceptives

Figure 3 shows data on men's awareness of modern contraceptives. The majority (94.36%) of the respondents have heard about at least one modern contraceptive method.

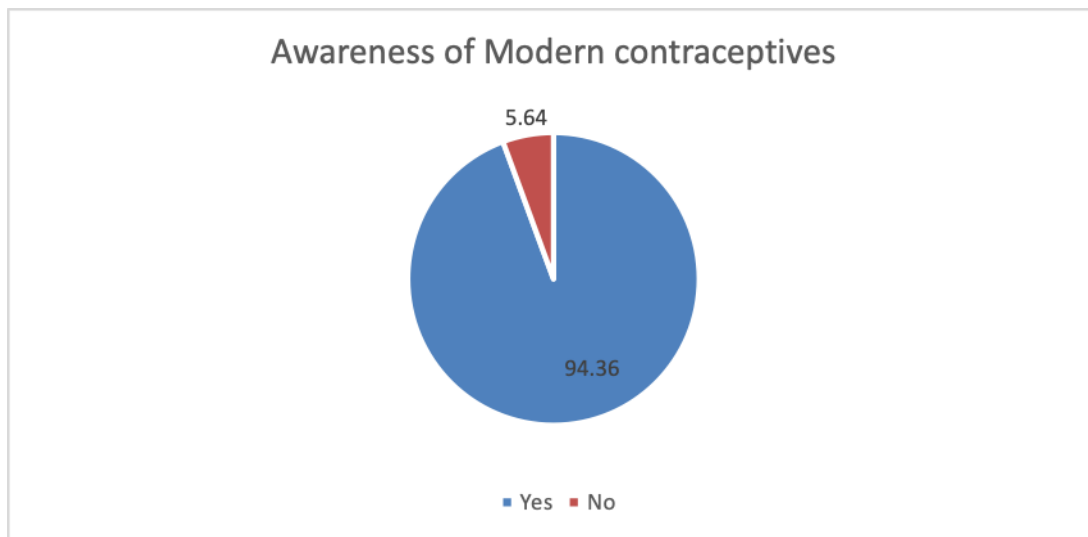


Figure 3: Men's awareness of modern contraceptive

4.2.1 Men's awareness about modern contraceptives by socio-demographic background

Pearson Chi-square test was employed to explore the relationship between respondents' socio-demographic characteristics and awareness of modern contraceptive. Table 2 shows men's awareness about modern contraceptives by socio-demographic background. The majority (42.3%) of the respondents who were aware of modern contraceptive were aged 31-40. In terms of education, respondents who attained Junior High School education (31.2%) were more aware of modern contraception. Majority of Christians heard (77.6%) about modern contraception when compared to the other religious group. Similarly, the majority (69.4) of the respondents who were Akan's were aware of modern contraceptive compared to the other ethnic groups. Most (53.9%) of the respondents who were aware of modern contraceptives were farmers/domestic workers. Additionally, the majority (69.4%) of the respondents who were aware of modern contraceptive were married.

Table 1: Men's awareness about modern contraceptives by socio-demographic background

Characteristic	Awareness of Modern contraceptives			χ^2	p-value
	No, n (%)	Yes, n (%)	Total, n (%)		
Age category					
19-30	24 (15.5)	131 (84.5)	155 (29.1)	2.623	0.269
31-40	47 (20.9)	178 (79.1)	225 (42.3)		
41-49	34 (22.4)	118 (77.6)	152 (28.6)		
Locality					
Rural	25 (5.9)	400 (94.21)	425 (79.9)	0.235	0.628
Urban	5 (4.7)	102 (95.3)	107 (20.1)		
Education					
No formal education	8 (13.8)	50 (86.2)	58 (10.9)	16.630	0.002**
Primary	7 (12.1)	51 (87.9)	58 (10.9)		
Junior High School	8 (4.8)	158 (95.2)	166 (31.2)		
Senior High School	6 (3.9)	149 (96.1)	155 (29.1)		
Tertiary	1 (1.1)	94 (98.9)	95 (17.9)		
Religion					
Christian	15 (3.6)	398 (96.4)	413 (77.6)	28.893	0.001***
Moslem	3 (4.8)	59 (95.2)	62 (11.7)		
Traditionalist	11(21.6)	40 (78.4)	51 (9.6)		
Other	1 (16.7)	5 (83.3)	6 (1.1)		
Ethnicity					
Akan	76 (20.6)	293 (79.4)	369 (69.4)	7.760	0.170
Ewe	6 (9.8)	55 (90.2)	61 (11.5)		
Ga	6 (14.6)	35 (85.4)	41 (7.7)		
Guan	10 (26.3)	28 (73.7)	38 (7.1)		
Dagarti/Kusaase	6 (33.3)	12 (66.7)	18 (3.4)		
Other	1 (20.0)	4 (80.0)	5 (0.9)		
Occupation					
Professional/Civil servant	16 (18.6)	70 (81.4)	86 (16.2)	2.876	0.237
Businessmen/tradesmen	25 (15.7)	134 (84.3)	159 (29.9)		
Farmers/domestics worker	64 (22.3)	223 (77.7)	287 (53.9)		
Marital status					
Married	14 (3.8)	354 (95.9)	369 (69.4)	1.960	0.161
Cohabitation	7 (4.3)	156 (95.7)	163 (30.6)		
Wealth status					
Poorest	20 (18.5)	88 (81.5)	108 (20.3)	4.251	0.373
Poor	17 (15.7)	91 (84.3)	108 (20.3)		
Medium	19 (17.8)	88 (82.2)	107 (20.1)		
Rich	22 (20.8)	84 (79.2)	106 (19.9)		
Richest	27 (26.2)	76 (73.8)	103 (19.4)		

4.3 Sources of information on modern contraceptives

Of those who were aware of modern contraceptives, their sources of information were further accessed. Figure 4 shows data on sources of information on modern contraceptives among men who had heard about modern contraceptives. The majority (39.84%) heard information on modern contraceptives from friends. Radio was also reported by 26.10% of the respondents as their source of information. Only 3.19% of the respondents said they heard about modern contraceptives from a healthcare worker.

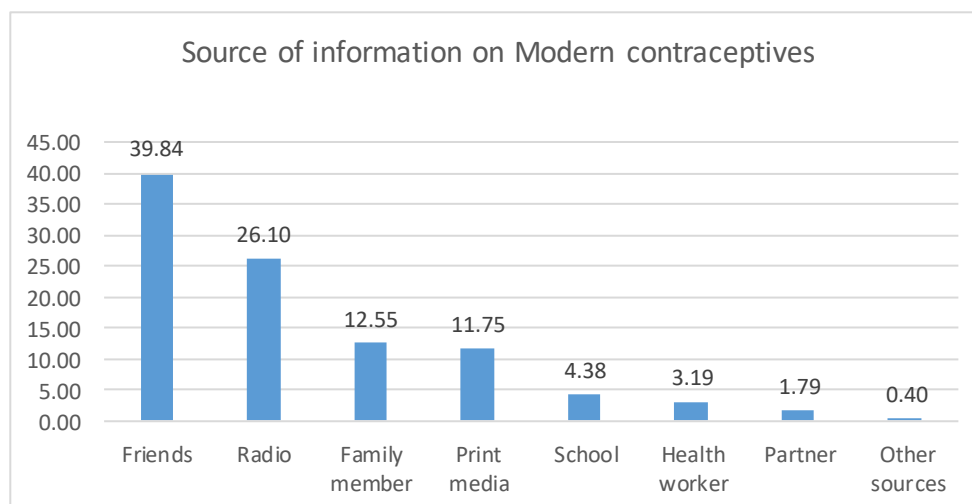


Figure 4: Sources of information on modern contraceptives

4.4 Types of contraceptives methods men heard about.

Among the respondents who were aware of modern contraceptives, they were made to spontaneously mention the types of contraceptives that they have ever heard about. The majority (79.28%) mentioned male condom which was followed by pills (49.00%) and injectables (42.43%). Figure 5 shows the contraceptive methods that respondents said they have ever heard.

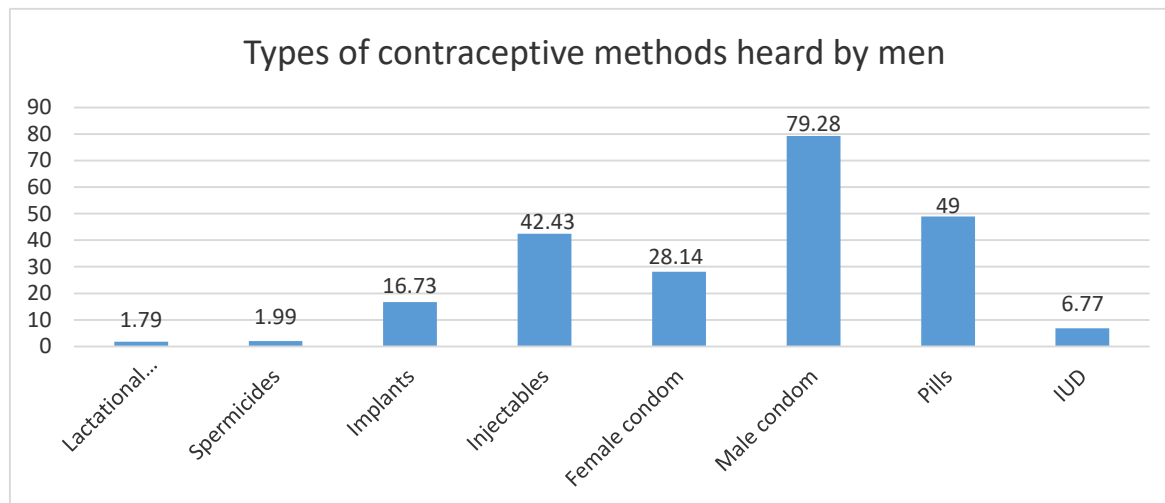


Figure 5: Contraceptive methods heard by men

4.5 Men's use of modern contraceptives

Among men who were aware of modern contraceptives, the majority (77.29%) of them said that they have ever used a contraception method before. The majority (65.74%) of the respondents again said they were currently using a contraceptive.

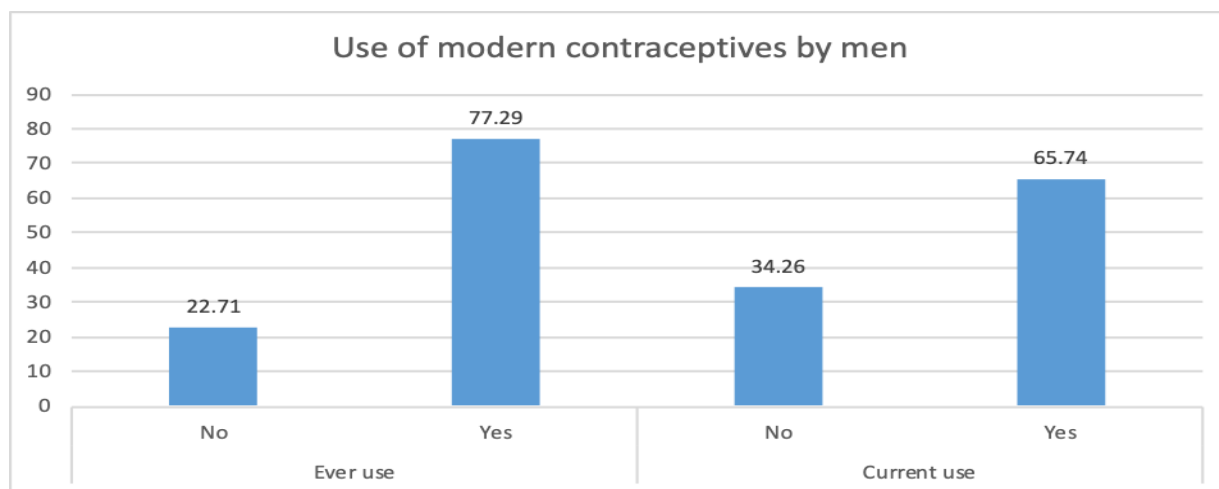


Figure 6: Use of modern contraceptive by men

4.6 Men's acceptance of their female partners' use of modern contraceptives.

Figure 8 shows data on men's acceptance of modern contraceptive use by their female partners. The majority (82.47%) of the respondents who were aware of modern contraceptives accepted that they would allow their female partners to use modern contraceptives.

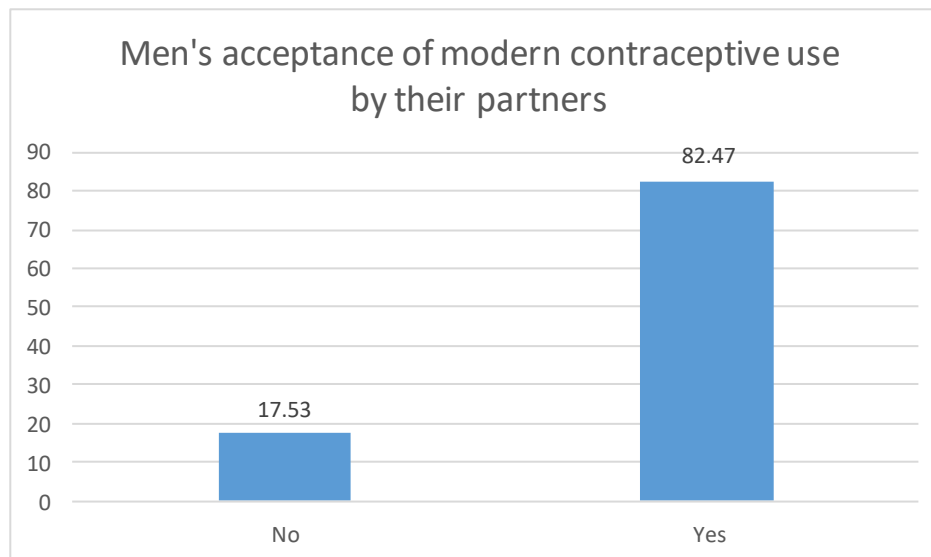


Figure 7: Men's acceptance of their female partners' use of modern contraceptives

4.7 Factors associated with men's acceptance of their female partners' use of modern contraceptives

4.7.1 Bivariate analysis

Pearson's chi-square test was used to assess the relationship between some independent variables and men's acceptance of their female partner's use of modern contraceptives. Among the observed characteristics as shown in Table 3, locality, education, religion, number of children, ever use of modern contraceptives, ever received education about modern contraceptive from a health worker, Religion, and Number of sexual partners had in the last 12

months showed significant statistical association with men's acceptance of their female partners' use of modern contraceptive (p <0.05).

Table 3: Factors associated with men's acceptance of modern contraceptive use by their female partners

Characteristic	Would you accept your female partner to use Modern contraceptives			X ²	P-value
	No, n(%)	Yes, n(%)	Total, n(%)		
Age					
19-30	18 (12.2)	130 (87.8)	148 (29.5)	4.183	0.123
31-40	42 (19.8)	170 (80.2)	212 (42.2)		
41-49	28 (19.7)	114 (80.3)	142 (28.3)		
Locality					
Rural	54 (13.5)	346 (86.5)	400 (79.7)	22.114	0.001***
Urban	34 (33.3)	68 (66.7)	102 (20.3)		
Education					
None	21 (42.0)	29 (58.0)	50 (10.0)	24.378	0.001***
Primary	6 (11.8)	45 (88.2)	51 (10.2)		
Junior High School	26 (16.5)	132 (83.5)	158 (31.5)		
Senior High School	19 (12.8)	130 (87.2)	149 (29.7)		
Tertiary	16 (17.0)	78 (83.0)	94 (18.7)		
Religion					
Christian	61 (15.3)	340 (84.70)	398 (79.0)	12.443	0.006**
Moslem	11 (18.6)	48 (81.4)	59 (11.8)		
Traditionalist	15 (37.5)	25 (62.5)	40 (8.0)		
Other	1 (20.0)	4 (80.0)	5 (1.0)		
Marital status					
Married	67 (19.1)	284 (80.9)	351 (69.9)	1.960	0.161
Cohabitation	21 (13.9)	130 (86.1)	151 (30.1)		
Marital years					
1-2	15 (16.0)	79 (84.0)	94 (18.7)	5.310	0.070
3-4	21 (12.7)	144 (87.3)	165 (32.9)		
5+	52 (21.4)	191 (78.6)	243 (48.4)		
Number of children					
None	12 (16.7)	60 (83.3)	72 (14.3)	9.103	0.011*
1-3	31 (12.8)	211 (87.2)	242 (48.2)		
4+	45 (23.9)	143 (76.1)	188 (37.5)		

Household size					
1-3	16 (16.2)	83 (83.8)	99 (19.7)	1.953	0.377
4-6	21 (12.8)	124 (85.5)	145 (28.9)		
7+	51 (19.8)	207 (80.2)	258 (51.4)		
Occupation					
Professional/Civil servant	15 (17.6)	70 (82.4)	85 (16.9)	3.459	0.177
Businessmen/tradesmen	19 (12.8)	129 (87.2)	148 (29.5)		
Farmer/domestic worker	54 (20.1)	215 (79.9)	269 (53.6)		
Wealth status					
Poorest	20 (20.2)	79 (79.8)	99 (19.7)	6.069	0.194
Poor	11 (10.8)	91 (89.2)	102 (20.3)		
Medium	15 (14.9)	86 (85.1)	101 (20.1)		
Rich	20 (19.8)	81 (80.2)	101 (20.1)		
Richest	22 (22.2)	77 (77.8)	99 (19.7)		
Distance to the source of modern contraception					
Less than 30 minutes	42 (14.9)	239 (85.1)	281 (56.0)	3.201	0.202
Between 30m and 1 hour	39 (20.3)	153 (79.7)	192 (38.2)		
Above 1hour	7 (24.1)	22 (75.9)	29 (5.8)		
Ever used modern contraception					
No	51 (44.7)	63 (55.3)	114 (22.7)	75.520	0.001***
Yes	37 (9.5)	351 (90.5)	388 (77.3)		
Ever discussed the desired number of children with partner					
No	60 (16.0)	314 (84.0)	374 (74.5)	2.244	0.134
Yes	28 (21.9)	100 (78.1)	128 (25.5)		
Ever received education on contraceptive from a health worker					
No	32 (32.0)	68 (68.0)	100 (19.9)	18.086	0.001***
Yes	56 (13.9)	346 (86.1)	402 (80.1)		
Ever received counselling on contraception					
No	80 (16.8)	396 (83.2)	476 (94.8)	3.325	0.068
Yes	8 (30.8)	18 (69.2)	26 (5.2)		
Cost of contraception is expensive					
No	79 (18.3)	352 (81.7)	431 (85.9)	1.348	0.246
Yes	9 (12.7)	62 (87.3)	71 (14.1)		
Difficult to get preferred contraceptive method					
No	81 (17.0)	396 (83.0)	477 (95.0)	1.995	0.158
Yes	7 (28.0)	18 (72.0)	25 (5.0)		
Number of sexual partners in the last 12 months					
1	7 (41.2)	10 (58.8)	17 (3.4)	6.864	0.032*
2-3	79 (16.8)	392 (83.2)	471 (93.8)		
4+	2 (14.3)	12 (85.7)	14 (2.8)		

*:p-value<0.05, **:p-value<0.01, ***:p-value<0.001

The variables that were significant in the bivariate analysis were further explored in a multivariate logistic regression model. In this model, locality, education, religion, number of children, ever use of modern contraceptive, ever received education about modern contraception, religion, and number of sexual partners had in the last 12 months were put in the model.

After the adjustments, locality, education, religion, and ever use of modern contraception remained statistically significant ($p < 0.05$). Specifically, when compared to men who live in rural localities, men who live in urban localities were less likely to accept their female partner's use of modern contraceptives after potential covariates were adjusted for (aOR=0.36, CI=0.18-0.74; $p=0.005$). Also, those who had any form of formal education were more likely to say they would accept their female partner's use of modern contraceptive compared with those who had no formal education.

However, after adjusting for potential confounders, men who attained primary education were 3.59 times more likely to accept their partner's use of modern contraceptive method compared to those who did not have formal education (aOR=3.59, CI=1.1-11.77, $p=0.035$). Additionally, men who ever used modern contraceptive were 5.16 times more likely to allow their partners to use modern contraceptives compared to those who never used contraceptives before (aOR=5.16 CI 2.92 - 9.13 $P=0.001$). Finally, the odds of men accepting their female partner's modern contraceptive use were much lower for all religious groups when compared to Christians. However, being a Muslim significantly reduced the odds of accepting their partner's use of modern contraceptive compared to Christian (aOR=0.27 CI 0.11-0.63 $p=0.002$).

Table 4: Multivariate logistic regression of factors associated with men's acceptance of their female partners to use modern contraceptives.

Characteristics	Crude	P-value	Adjusted	P-value
	COR [95% Conf.]		AOR [95% Conf.]	
Locality				
Rural	1		1	
Urban	0.31(0.19 - 0.51)	0.001***	0.36(0.18- 0.74)	0.005**
Education				
No formal education	1		1	
Primary	5.43(1.96 - 15.07)	0.001**	3.59(1.10- 11.77)	0.035*
Junior High School	3.68(1.82 - 7.42)	0.001***	1.85(0.79- 4.35)	0.156
Senior High School	4.95(2.36 - 10.38)	0.001***	2.05(0.82- 5.10)	0.124
Tertiary	3.53(1.62 - 7.69)	0.001**	1.77(0.64- 4.86)	0.269
Religion				
Christian	1		1	
Moslem	0.79(0.38 - 1.61)	0.515	0.62(0.26- 1.48)	0.281
Traditionalist	0.30(0.15 - 0.60)	0.001**	0.27(0.11- 0.63)	0.002**
Other	0.72(0.08 - 6.59)	0.774	0.47(0.03- 6.36)	0.571
Number of Children				
None	1		1	
1-3	1.36(0.66 - 2.81)	0.405	2.04(0.88 - 4.73)	0.096
4+	0.64(0.31 - 1.29)	0.207	0.97(0.41 - 2.29)	0.941
Ever used Modern Contraceptive				
No	1		1	
Yes	7.68(4.65 - 12.67)	0.001***	5.16(2.92 - 9.13)	0.001***
Ever received education on contraceptive from a health worker				
No	1		1	
Yes	2.91(1.75 - 4.82)	0.001***	1.53(0.83 - 2.85)	0.176
Sexual partners had in the last 12 months				
1	1		1	
2-3	3.47(1.28 - 9.40)	0.014**	1.76(0.50 -6.21)	0.378
4+	4.20(0.71 - 24.94)	0.114	1.69(0.21 -13.25)	0.619

*:p-value<0.05, **:p-value<0.01, ***: p-value<0.001

4.8 Chapter summary

This chapter presents the results of the study. The results showed that men's awareness of modern contraception was high (94.4%). Men's acceptance of modern contraceptive use by their female partners was similarly high (82.5%) among those who were aware of modern contraception. The next chapter discusses these results.

CHAPTER FIVE

DISCUSSION

5.0 Introduction

This chapter discusses the findings of the study. The chapter is organized into the followings headings: summary of key findings, consistency of major findings with existing research, explanation of the findings and their implications for policy and research, limitations and strengths of the study, and chapter summary.

5.1 Summary of key findings

The aim of the study was to determine males' acceptance of modern contraceptive use by their female partners in the Sefwi Wiawso Municipality. Results showed that the majority of the respondents were aged 31- 40 (42.3%). Findings also revealed that majority of the respondents were aware of modern contraceptive (94%). The study also showed that males' acceptance of modern contraceptive use by their female partners was high (82.5%). It was also noted that males who have ever used a modern method of contraception were more likely to allow their partners to use same.

5.2 Consistency with previous research

The study found that awareness of modern contraceptive among the men interviewed was very high (94.36%). This finding is similar to a study by Girum et al. (2017) where they recorded a high prevalence (96%) of awareness among married men in South West Ethiopia. The result from this current study similar to a study conducted by Adegbola & Habeebu-Adeyemi (2016), 89.5% married men in Lagos, Nigeria, were aware of modern contraception.

The study also found that among the 94.36% of men who were aware of modern contraceptives, the majority (39.84%) indicated that their sources of information were through friends. This finding contradicts findings from Adegbola & Habeebu-Adeyemi (2016), where a lower percentage (19.3%) of men reported getting their information from friends.

This current study also found a lower percentage (3.19%) of the participants who identified a healthcare worker as their source of information on contraceptives compared to the study conducted by Adegbola & Habeebu-Adeyemi (2016), where a higher percentage (34%) of participants reported getting their information from a health worker. A study by Girum et al. (2017) revealed that 83.9% of the men who were interviewed identified radio as their source of information on modern contraception which is higher than what was recorded in the current study (26.10). On the contrary, Girum et al. (2017) identified health worker as the second highest (61.2%) source of information on modern contraception while the current study recorded as low as 3.19%.

For the types of contraceptives methods men have heard about, findings from this study showed that the majority (79.28%) of the respondents surveyed had heard about the male condom. This was followed by pills (49%) and injectables (42.43%). The current study reported a higher percentage of awareness about male condom compared to a study by Tuloro, Deressa, Ali, & Davey (2009), who reported men's awareness about condoms to be 65.6% in Southern Ethiopia. The finding in this study contrast with a study conducted by Hamdan-Mansour, Malkawi, Sato, Hamaideh, & Hanounah (2016), where 28.8% of the men mentioned male condoms.

Findings also revealed that majority of the respondents have ever used a modern contraceptive method. The current study recorded a higher prevalence of ever use of modern contraception among men compared to a study conducted by Tuloro et al. (2009) who recorded only a 15% prevalence.

With respect to current use of modern contraceptives in this study, majority of the respondents were currently using a contraception method. This finding is in contrast with a study conducted by Hamed et al. (2018) who recorded contraceptive prevalence of only 6.2% among husbands in El- Mansheah El-Kobra, Assiut Governorate in Egypt (Hamed et al., 2018).

The study found that males' acceptance of their female partners' use of modern contraceptives in the Sefwi Wiawso Municipality was generally high, which may be perfectly in line with high awareness of modern contraceptives in the municipality. The finding is however similar to a study conducted by Tuloro et al. (2009) where 90% of the men surveyed were willing to allow their female partners to use modern contraceptive in Southern Ethiopia. Also, the current study is similar to a study that was conducted by Girum et al. (2017), where 77.5% of the men interviewed approved the use of contraceptive by their partner. However, the current finding is in contrast with a study that was conducted by Adelekan et al. (2014) where only 45.8% of the males said that they would allow their partners to use modern contraceptives (Adelekan et al., 2014).

With respect to factors associated with men's acceptance of their female partners' use of modern contraceptives, locality, religion, education, and ever use of modern contraception remained statistically significantly associated with men's acceptance of their female partners' use of modern contraceptives after adjusting for covariates. For the locality, the study found differences in male's acceptance of their female partner's use of modern contraceptives.

Findings also showed a relationship between education and men's acceptance of their female partners' use of modern contraceptives: the odds of men who attained a primary education were 3.59 times more likely to accept their female partner to use modern contraceptives compared to those who did not. This result is similar to a study by Ijadunola et al. (2010), where men who attained a primary level of education had 16% lower odds of deciding on the adoption of family planning.

Additionally, findings from the study show that men who ever used modern contraceptives were 5.16 times more likely to allow their partners to do same compared to those who have not used contraceptives before. This is to be expected because males who ever used modern contraceptives are more likely to accept and ensure that they support their female partners to do the same.

5.3 Explanation of findings and implications

The study found that awareness of modern contraceptive was very high (94.36%) among participants. This could be as a result of extensive education on modern contraceptive use in the municipality by the Municipal Health Directorate. The high awareness about modern contraceptive among men in the municipality could also be as a result of activities of NGOs such as UNSAID that regularly train the staff across all health facilities on reproductive health issues including modern contraceptive usage. In addition, the ubiquitous availability of community information centres and radio stations could have contributed to the high awareness about modern contraceptive among men as it emerged as the second major source of information for most respondents.

Findings that emerged from the current study showed that contraceptive usage among the respondents was high. This result could be a direct manifestation of the high awareness about modern contraceptives that is observed in this study.

Finally, findings from this study clearly show that majority of males are willing and ready to accept their female partners to use modern contraceptives. This could be explained in terms of high awareness about modern contraceptives among men in this study. Also, this could be due to the activities of NGOs and international organizations such as Marie Stopes International, which have been involved in creating awareness about reproductive health issues in the rural areas of the municipality.

In terms of policy implications, the findings in this study suggest that including men in family planning and contraception issues may foster the use of modern contraception among women in general. This finding may have a positive outcome on the effort to resolve the unmet needs of fecund women.

Finally, and related to the conceptual framework used to guide the conduct of this study, cultural beliefs did not have much influence on men's acceptance of modern contraceptive use by their partners as envisaged in the framework. Similarly, health system factors which were captured within the conceptual framework did not have an influence on men's acceptance of their female partners' use of modern contraception.

5.4 Strength and limitation of the study

This current study adds to the scanty literature on factors affecting men's acceptance of their female partners' use of modern contraceptive in Ghana. Due to the scanty nature of literature on

the subject matter, this current study has the strength to serve as a baseline in understanding the factors that influence men's behaviour and choice in terms of accepting modern contraceptive use by their female partners. However, the study admits that adding a qualitative aspect of the survey would have provided the opportunity to understand the contextual issues affecting men's acceptance of modern contraceptive. Additionally, the responses from the participants may have been affected by recall bias since some events may have occurred long before this study.

5.5 Chapter Summary

In summary, this chapter discussed the findings of the study. The results from the discussion revealed that majority of the respondents were aware of modern contraceptive in Sefwi Wiawso Municipality. The findings from the discussion also show that a high percentage of men in the area shows their willingness to allow their female partners to use modern contraception. It was also noted that males who have ever used a modern method of contraception were more likely to allow their partners to use modern contraception. The highlights from the discussion, however, reflect on the needs to actively involves men in family planning programmes to help reduce unmet needs of fecund women who want to avoid pregnancy but are not using any form of modern contraceptives. For these reasons, the next chapter would be devoted to specific recommendations.

CHAPTER SIX

CONCLUSION

6.1 Conclusion

The aim of the study was to determine men's acceptance of modern contraceptive use by their female partners in Sefwi Wiawso Municipality. Results revealed that the majority of the respondents were aware of modern contraceptive (94%). The findings further showed that men's acceptance of modern contraception use by their female partners was high (82.5%). Factors that were significantly associated with men's acceptance of the partners' use of contraceptives after covariates were controlled for in multivariate logistic regression analysis included locality, religion, education, and ever use of modern contraception.

Based on the above, it could be concluded that men's acceptance of their female partners' use of modern contraceptive in the Sefwi Wiawso municipality is high and that a combination of modifiable and non-modifiable socio-demographic and community-level factors affect men's acceptance of their female partners' use of modern contraceptives. Therefore, interventions should be targeted at these modifiable factors (e.g. education and contraceptive use) that influence men's acceptance of their female partners' use of modern contraceptives. In this regard, specific recommendations are made below.

6.2 Recommendation

Based on the findings from this study, the following recommendations are made:

1. In order to improve modern contraceptive use among women, there should be a deliberate attempt by the Sefwi Wiawso Municipal Health Directorate to involve men in family planning programmes, which would enable the men to further understand issues concerning family planning to effectively support their female partners rather than concentrating only on women.

Involving men in family planning programmes would promote use among both men and women

2. In partnership with community leaders, the Municipal Health Management Team should coordinate educational campaigns within the communities to educate community members, particularly males, on the need and benefits of male participation in family planning issues to help reduce the unmet needs of fecund women who do not want pregnancy now but are not using any method.
3. This study shows that majority of the respondent sourced their information about modern contraceptives from friends rather than a health worker. This could mean that the health workers are not readily accessible by the respondents or the poor attitudes of health care providers towards the men. Most of these friends may end up misinforming the colleagues and others about family planning. It is therefore recommended that regular re-training of staff across all facilities in the municipality should be done by Ghana Health Service.
4. Further research should be conducted using qualitative methods to explore the contextual issues that may influence men's decision to accept their female partners' use modern contraceptives.

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APPENDIX I: PARTICIPANTS INFORMATION SHEET FOR CONSENT

UNIVERSITY OF GHANA, LEGON

COLLEGE OF HEALTH SCIENCE: SCHOOL OF PUBLIC HEALTH

TITLE OF THE STUDY: men's acceptance of their female partners use of modern contraceptives in Sefwi Wiawso Municipality of Ghana

INTRODUCTION

I am Akpatsu Anthony a student from the University of Ghana offering Master of Public Health (MPH), I can be contacted through the following: Address; Nursing Training College, P O. Box 37, Sefwi Wiawso. Phone numbers; 0249397656/0200167334 and email; allabbaman2@gmail.com.

I work at Nursing Training College, Sefwi Wiawso as a Health Tutor. The name of my supervisor is Dr John K. Ganle, School of Public Health, and the University of Ghana with phone number: 0249957505 and email: jganle@ug.edu.gh

Nature of research

More studies need to be conducted on the men's acceptance of their female partner's use of modern contraceptive. More focus is on the women accepting the use of modern contraceptive, leaving the men out of this fight. The study is therefore focused on the men, whether they would accept their female partners to use these modern contraceptives. The study will involve men who are in a union for at least one year and are between the reproductive ages, 15 – 49 years will qualify to be part. It will be done in Sefwi Wiawso Municipality.

Participant's involvement

Duration

We are to ask you some few questions on sociodemographic, health system factors, individual factors which relate to men's acceptance of modern contraceptives use by their female partners.

The interview will take about 25 minutes of your time if only you can spur us.

Potential Risks

No biological samples will be collected, and respondents will not be exposed to any physical danger when they take part in the study apart from the time, they will spend answering the questions.

Benefits

The respondents will be told that there are no direct benefits from participation in this study. However, refreshment (soft drinks and biscuits) will be provided to them when there is the need. Finally, the information that respondents will provide may help improve men's acceptance of their female partner's use of modern contraception.

Compensation

Respondents will not be paid for their participation in this research. However, where a respondent has to travel to participate in the research, the researcher will pay for all travelling expenses.

Measures to reduce the spread of Coronavirus (COVID – 19)

The principal investigator would follow strictly the laid down preventive measures as directed by the President of Ghana, the Ministry of Health, and the Ghana Health Service Ethics Review Committee guidelines for researchers during the covid-19 pandemic.

Social distancing would be strictly be adhered to during the cause of the interview, to ensure this, participants would sit 6 feet away from the interviewer. The questions would be asked loudly to allow audibility and comprehension of the questions by the respondent without compromising on confidentiality.

All participants and interviewers would undergo handwashing with soap and running water or sanitize their hands with alcohol-based hand sanitisers before and after the interviews. All respondents would wear or be advised to wear a face mask during the interview section. To ensure the above, the study team would provide face masks at no cost to respondents with no face masks. Interviewers would compulsorily wear face mask upon entering the community or compounds and during all interview sections.

Participants would be taught how to wear, remove and care for the reusable facemasks.

All researchers must ensure adequate protection by practising good personal hygiene through regular hand washing, the use of sanitisers, protective gloves and wearing facemasks.

Confidentiality

The confidentiality of all respondents will be protected. Respondents will not be identified by name on any survey questionnaire or any other documentation. All study records will be kept

under lock and key. Respondents will not be reported by name in any report or publication resulting from data collected in this study.

Voluntary participation/ withdrawal

Participation in the study will be purely voluntary, and respondents can choose not to take part in the study, withdraw consent at any time, and refuse to answer any question in the process of the interview if they so wish. They will also be informed that their decision not to participate in the study will not affect them negatively in any way.

The outcome and feedback

The study outcomes will provide insight into how men can help support their female partners in the use of modern contraceptive in Sefwi Wiawso municipality and Ghana as a whole. Finding from the study will be communicated to the Municipal Health Directorate and health policy maker in Ghana Health Service to implement any findings from this study. Moreover, the results will be published in academic journals.

Feedback to participants

They will not be any direct feedback to participants on the findings but will only get responses from the study when stakeholders implement any recommendation made by the study

Protocol funding information

The research will be funded by the Principal Investigator

Data management and protection

Data from this research will be entered into access-controlled and password-protected databases.

No names or any identifying details of respondents will be written on any

Privacy

The privacy of all respondents will be ensured. Interviews will be conducted in a secure environment to assure maximum privacy of respondents in addition to being convenient to every member. Neither the name/address of respondents will be used to identify them.

Who to Contact

For Further Clarifications and Questions, contact Principal Investigator (PI))-Anthony

Akpatsu through the following: Address; Nursing Training college, P O. Box 37, Sefwi Wiawso.

Phone numbers; 0249397656/0200167334 and email; allabbaman2@gmail.com.

You can also contact my Supervisor Dr John K. Ganle, School of Public Health, and the University of Ghana with phone number: 0249957505 and email: jganle@ug.edu.gh for any further clarification if the need be.

For further clarification on ethical issues and rights to participation, contact

The administrator, Ghana Health Service- Ethical Review Committee (GHS-ERC) Nana Abena Apatu on Telephone number 0503539896 and email; ethics.research@ghsml.org

APPENDIX II: CONSENT FORM

Study Title: MEN'S ACCEPTANCE OF THEIR FEMALE PARTNERS USE OF
MODERN CONTRACEPTIVES IN SEFWI WIAWSO MUNICIPALITY

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the Participants' Information Sheet read and satisfactorily explained to me in a language I understand (English, Sefwi and Twi). I fully understand the contents and any potential implications as well as my right to change my mind (ie withdraw from the research) even after I have signed this form.

I voluntarily agree to be part of this research.

Name or Initials of Participant..... ID Code

Participants' SignatureOR Thumb Print.....

Date:.....

INTERPRETERS' STATEMENT (where applicable)

I interpreted the purpose and contents of the Participants' Information Sheet to the aforementioned participant to the best of my ability in the (English, Sefwi and Twi) language to his proper understanding.

All questions, appropriate clarifications sort by the participant and answers were also duly interpreted to his/her satisfaction.

Name of Interpreter.....

Signature of Interpreter.....

Date:.....

Contact Details

STATEMENT OF WITNESS (where applicable)

I was present when the purpose and contents of the Participant Information Sheet was read and explained satisfactorily to the participant in the language he/she understood (English, Sefwi and Twi)

I confirm that he/she was allowed to ask questions/seek clarifications and the same were duly answered to his/her satisfaction before voluntarily agreeing to be part of the research.

Name:.....

Signature..... OR Thumb Print

Date:.....

INVESTIGATOR STATEMENT AND SIGNATURE

I certify that the participant has been given ample time to read and learn about the study. All questions and clarifications raised by the participant have been addressed.

Researcher's name.....

Signature

Date.....

APPENDIX III: STUDY QUESTIONNAIRE

TOPIC: MEN'S ACCEPTANCE OF THEIR FEMALE PARTNERS USE OF MODERN CONTRACEPTIVES IN SEFWI WIAWSO MUNICIPALITY

I am a Master's student of the University of Ghana, School of Public Health Legon writing a protocol on “Men's acceptance of their female partners uses of modern contraceptives in Sefwi Wiawso municipality” as part of my master of public health degree. The finding of this research will be presented to the Department of Population, Family and Reproductive health in the form of a thesis.

The data will be confidential and used for statistical purpose only and your identity will not be disclosed. I would, therefore, be very grateful if you could spare some time to respond to this questionnaire.

PARTICIPANTS' INSTRUCTIONS

Do not write your name; tick only one correct response and multiple responses where applicable. Only Men who are in union with a female partner are eligible for this study.

SECTION A. SOCIO-DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

	QUESTIONS	RESPONSE						CODE
SQ.a	Sub-Municipal code							
SQ.b	Name of Sub-Municipality							
SQ.c	Community Name							
SQ.d	Community code							
SQ.e	Participant ID							
SQ.f	Compound Number							
SQ.g	Form Number							

SQ1	How old are you?		
SQ2	Highest level of education	None ☐	1
		Primary ☐	2
		JHS ☐	3
		Secondary ☐	4
		Tertiary ☐	5
SQ3	Religious affiliation	Christianity ☐	1
		Islamic ☐	2
		Traditional ☐	3
		Other ☐	4
SQ4	What is your Ethnicity	Akan ☐	1
		Ewe ☐	2
		Ga ☐	3
		Guan ☐	4
		Other	5
SQ5	Place of residence	Rural ☐	1
		Urban ☐	2
SQ6	Marital status	Married ☐	1
		Co-habiting ☐	2
		Separated ☐	3
		Other specify.....	
SQ7	If Q6 is 1. Married, how long have you been married?	a. 1 year ☐	1
		b. 2 years ☐	2
		3 years ☐	3
		4 years ☐	4

		5 years and above ☐	5
SQ8	If Q6 is 2, Co-habiting how long have you been in this relationship?	1 year ☐	1
		2 years ☐	2
		3 years ☐	3
		4 years ☐	4
		5 years and above ☐	5
SQ9	Do you have a regular cash income or salaried job?	Professional – teacher, nurse, accounts, administrator, etc ☐	1
		Clerical /secretarial ☐	2
		Trader /businessman/driver with own car etc. ☐	3
		Employed tradesman, a driver without their own car, builder, etc. ☐	4
		Farmer/labourer/domestic worker ☐	5
		Other : Specify.....	
SQ10	Do you or any member of your household do farming?.....	Yes ☐	1
		No ☐	2
SQ11	Do you or any member of your household own a farm?.....	Yes ☐	1
		No ☐	2
SQ12	What do/(household member) you grow?	Food items mainly for home consumption ☐	1
		Food items, mainly for sale ☐	2

		NA	☐	8	
SQ13	How many acres do your household have (combine all farms own by the household)?	Up to 1 acre	☐	1	
		2 to 4Acres	☐	2	
		5 to 9 acres	☐	3	
		10 to 14 acres	☐	4	
		15 to 19 acres	☐	5	
		20 + acres	☐	6	
		NA	☐	7	
SQ14	Do you grow any cash crop such as cashew, cocoa, tobacco, etc?	Yes	☐	1	
		No	☐	2	
		NA	☐	3	
SQ15	What is the total number of acres for the cash crop mentioned above?	Less than 10 acres	☐	1	
		10 to 19 acres	☐	2	
		20 to 29 acres	☐	3	
		30 to 39 acres	☐	4	
		40 to 49 acres	☐	5	
		50 to 59 acres	☐	6	
		60 to 69 acres	☐	7	
		70 to 79 acres	☐	8	
		80 to 89 acres	☐	9	
		90 to 99 acres	☐	10	
		100 + acres	☐	11	
		NA	☐	12	
SQ16	Do you have any of the following:	Chicken/ducks?....	☐	☐	☐
		Cattle?....	☐	☐	☐
		Sheep/goats?.....	☐	☐	☐
		Pigs?.....	☐	☐	☐

		Other animals?.....		
		Table?.....		
		‘Mattress’ / ‘foam’?.....		
		‘Cupboard’, ‘wardrobe’, ‘room divider’?.....		
		Mosquito net?.....		
		Sewing machine?.....		
		Bicycle?.....		
		Radio?.....		
		TV?.....		
		Electric fan?		
		Gas or electric cooker?.....		
		Fridge or freezer?.....		
		Motorcycle?.....		
		Car (Private)?.....		
		Taxi/Bus/Minibus/Lorry etc. (Commercial)?.....		
		Mobile phones?		
		Satellite TV?		
		Computers?		
		Motor-king?.....		
SQ17	Do you have electricity?.....	Yes []	1	
		No []	2	
SQ18	Where do you obtain your drinking water?	Piped into Dwelling/yard/plot []	1	
		Public tap []	2	
		Handpum/closed bore hole []	3	

		Closed well []	4
		Open well []	5
		Stream/river []	6
		Lake/dam/pond []	7
		Water Trucks []	8
		Rainwater []	9
		Sachet water “pure water” []	10
		Bottled water []	11
		Other:	
SQ19	Where do you obtain water for doing house chores?	Pipe into dwelling/ yard /plot []	1
		Public tap []	2
		Handpump/closed Borehole []	3
		Closed well []	4
		Open well []	5
		Stream/river []	6
		Lake/dam/pond []	7
		Water trucks []	8
		Rainwater []	9
		Sachet water “pure water” []	10
		Bottled water []	11
		Other: specify.....	12
SQ20	Type of toilet facility?	Flush latrine/WC []	1
		Ventilated improved Pit /VIP/KVIP []	2
		Other pit latrine []	3

		Open fields ☐	4
		Defaecate in house, faeces transferred elsewhere/bucket latrine ☐	5
		Other specify.....	
SQ21	Do you share the toilet facility with other households)?	Not Shared (used by my household alone) ☐	1
		Share with other households in the compound ☐	2
		Shared with the public ☐	3
		NA (Open fields) ☐	4
SQ22	How many sleeping rooms do you have? Code 88 for Not known		
SQ23	How many people slept in those rooms last night? 88=NK		
SQ24	Type of ownership?	Sole ownership ☐	1
			2
		Joint ownership ☐	
		Renting ☐	3
		Family/relation's house ☐	4
		House provided rent-free ☐	5
		Perching ☐	6
		Other: ☐	7
	NK ☐	8	
MATERIALS USED IN THE CONSTRUCTION OF THE HOUSE(OBSERVE)			
SQ25	The floor of the sleeping room	Cement ☐	1
		Mud/clay ☐	2
		Tiles/Terrazzo ☐	3
		Other: ☐	4
		Don't know ☐	5

SQ26	Roofing	Metal/asbestos []	1
		Thatch/mud []	2
		Other: []	3
SQ27	Wall	Cement []	1
		Mud []	2
		Other: []	3
SQ28	Do you have a separate roofed room for cooking	Yes []	1
		No []	2
SQ29	Do you have a separate room for children?	Yes []	1
		No []	2
SQ30	Do you have a paid house help or someone who lives with you for a reward	Yes []	1
		No []	2

SECTION B. Awareness and Knowledge of contraceptives

	QUESTIONS	RESPONSE	CODE
AQ1	Have you ever heard about contraception?	Yes []	1
		No []	2
AQ2	If yes, how did you hear about it?	Radio []	1
		Teacher []	2
		Health worker []	3
		Family member []	4
		Friends []	5
		Partner []	6
		Print media []	7
		NA []	8

		Others specify.....	
AQ3	Contraception is any method or procedures used to prevent pregnancy?	Yes ☐	1
		No ☐	2
		Don't know ☐	3
AQ4	Have you ever heard of any contraceptive methods before?	Yes ☐	1
		No ☐	2
		If No skip to question UQ 23	
AQ5	Have you heard of modern contraceptives?	Yes ☐	1
		No ☐	2
AQ6	If AQ5 is Yes, mention the methods that you know	IUD ☐	1
		Injectable ☐	2
		Implants ☐	3
		Pills ☐	4
		Female condom ☐	5
		Male condom ☐	6
		Diaphragm ☐	7
		Lactational Amenorrhea Method ☐	9
			8
		NA ☐	10
		Others (specify) ☐	11
8AQ7	Where did you hear of this contraceptive(s) you have mentioned in 18 above?	Radio ☐	1
		Family member ☐	2
		Friends ☐	3

	If AQ5 is No Skip choose 8 NA	Partner []	4
		Print media []	5
		Teacher []	6
		Health worker []	7
		NA []	8
		Others state.....	9

SECTION C. Modern Contraceptive use among men in union

UQ.1a	Have you used any contraceptive before?	Yes []	1
		No []	2
		If no,skip to	
UQ.1b	How old were you when you first had a sexual encounter?		Don't know
UQ.2	Did you use condom or any contraceptives the first time you had sexual intercourse?	Yes []	1
		No []	2
		Not applicable []	3
UQ.3	Have you ever used any modern method of contraceptive before?	Yes []	1
		No []	2
UQ.4	Which of the methods have you ever used?	Vasectomy []	1
		Injectable []	2
		Pills []	3
		Foaming tablets []	4
		Male condom []	5
		Spermicides []	6

		Others (specify) ☐	7
		Coitus interruptus ☐	9
		NA ☐	8
UQ.5	Are you currently using any modern method of contraceptive?	Yes ☐	1
		No ☐	2
		Not applicable ☐	3
UQ.6	Which of the methods are you currently using?	Condom (female& male) ☐	1
		Injectables ☐	2
		Pills ☐	3
		Spermicides ☐	4
		Male sterilization ☐	5
		Others (specify)	
		NA ☐	8
UQ.7	Where do you get this modern contraceptive in the municipality from?	Hospital/clinic ☐	1
		Pharmacy /drug store ☐	2
		Health provider ☐	3
		Family planning / ☐	4
		PPAG Clinic ☐	
		Other specify	
UQ.8	What are your reasons for using modern contraceptives?	To space children ☐	1
		Cannot afford to look after many children ☐	2
		To stop having children ☐	3
		Other (specify).....	

		NA []	8
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UQ.9	How long have you been using modern contraceptives?	One month and above []	1
		One to two years []	2
		Three to five years []	3
		Six to 10years []	4
		Six to 10years []	5
		Others (specify)	
		NA []	8
UQ.10	How often do you use any of the methods?	Every time []	1
		Once a while []	2
		Not at all []	3
		Others(specify)	
		NA []	8
UQ.11	Who in your opinion should use modern contraceptives?	Married couples only []	1
		All sexually active persons []	2
		Adults only []	3
		Other specify	
UQ.12	When was the last time you had sexual intercourse?	Days	1
		Weeks	2
		Months	3
		Years	4
		Don't know	
UQ.13	The last time you had sex did you or your partner use any contraceptive?	Yes []	1
		No []	2
		Not applicable []	8

UQ.14	Which method(s) of contraceptive did you use? Which type? Tick as appropriate	Female sterilization	☐	1			
		Condom(female& male)	☐	2			
		Implants	☐	3			
		Injectables	☐	4			
		Pills	☐	5			
		IUCD	☐	6			
		Spermicides	☐	7			
		Diaphragm	☐	9			
		Lactational amenorrhea	☐	10			
		Male sterilization	☐	11			
		Other specify		12			
				NA		8	
UQ.16a	The last time you used a contraceptive, who decided on what to use?	Influence	☐	1			
		You	☐	2			
		Friend	☐	3			
		Partner	☐	4			
		Parent	☐	5			
		Others specify					
		NA	☐	8			
UQ 16.b	How much did you pay for the method you used stated in UQ.14						
UQ.17	Do family relations know that you are using family planning?	Yes	☐	1			
		No	☐	2			
		if No skip to UQ.20					
UQ.18	What was their response?						

UQ.19	How did you take it?		
UQ.20	Do friends know about it?	Yes ☐ No ☐ if No skip to UQ.23	
UQ.21	What was their response?		
UQ.22	How did you take?		
UQ.23	Would you accept your partner to use modern contraceptive?	Yes ☐ no ☐	1 2
UQ.24	If Yes what is the reason why you would accept your partner to use modern contraceptive?	To space children ☐ Cannot afford to look after many children ☐ To stop having children ☐ Other (specify)..... NA ☐	1 2 3 4 8
UQ.25	If Q23 is No, Reason why you would not accept your partner to use modern contraceptive?	Want more babies ☐ Possible promiscuous behaviour by partner ☐ Religious reasons ☐ Cultural reasons ☐ Side effect ☐ Expensive/high cost of contraception ☐	1 2 3 4 5 6 7

		Other, specify.....	
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SECTION D: ACCESS TO CONTRACEPTIVE & ATTITUDE OF MEN TOWARDS MODERN CONTRACEPTION

	QUESTIONS	RESPONSE	CODE
MQ1	Do you know a place in your community where you can get a modern contraceptive?	Yes []	1
		No []	2
MQ2	If yes, where?		1
		Hospital/clinic []	2
		Pharmacy/drug store []	3
		Health provider []	
		Family planning /PPAG/clinic []	4
		Friend []	5
		Other specify	
MQ3	Do you think that using modern contraceptive during sex provides 100% protection from pregnancy?	Yes []	1
		No []	2
		Don't know []	3
		Other specify	
	Do you agree or disagree with the following statement?		
MQ4	Overall, do you think contraception is a woman's business and man should not have to worry about it?	Yes []	1
		No []	2
MQ5	That women's who use contraception may become promiscuous?	Agree []	1
		Disagree []	2

MQ6	Approve of couples using contraception to avoid getting pregnant?	Agree ☐	1
		Disagree ☐	2
MQ7	It is better not to have more children than you can take care of?	Yes ☐	1
		No ☐	2
MQ8	Children in smaller families are more likely to succeed in life?	Yes ☐	1
		No ☐	2
MQ9	The use of contraception is harmful to the health of women?	Agree ☐	1
		Disagree ☐	2
MQ10	Contraceptive use can make you infertile?	Agree ☐	1
		Disagree ☐	2
MQ11	Contraceptive use is against the will of God?	Agree ☐	1
		Disagree ☐	2

MQ12	How many sexual partners (girlfriend) have you had in your lifetime?		
MQ13	Within the last 12 months, how many sexual partners have you had?		
MQ14	Do you feel any pressure from others to have unprotected sexual intercourse?	Yes ☐	1
		No ☐	2
MQ15	If yes to question MQ14, from whom do you feel the pressure?	Friends ☐	1
		Relatives ☐	2
		Partner ☐	3
		My partner ☐	4
		Other specify	
MQ16		Yes ☐	1

	Do you think sex education can influence men to accept the use of modern contraceptive by their female partners?	No []	2
MQ17	Did you get education on sex in school?	Yes []	1
		No []	2
		Don't know []	3
		Not applicable []	4
MQ18	Did you get education on sex in the house?	Yes []	1
		No []	2
		Don't know []	3

SECTION E. Factors Influencing men acceptance of their female partners to use Modern Contraceptives

FQ.1	Are there any cultural beliefs and practices that prevent men from accepting their female partners to use of modern contraceptives in your community?	Yes []	1
		No []	2
		Don't know []	3
		If No skip to question FQ3	
FQ.2	If yes to question FQ1, can you mention them		
FQ.3	Are there any religious beliefs and practices that prevent men from accepting their female partners to use of modern contraceptives in your community?	Yes []	
		No []	
		Don't know []	
		If No, skip to question FQ.5	
FQ.4	If yes to question FQ3 can you mention them		
FQ.5	What will you say are	Religious beliefs []	1

the reasons why men who are in a union will not accept the use of modern contraceptives by their partners? (Can tick more than one)	Distance to acquisition of contraceptives []	2
	Attitude of the contraceptive providers []	3
	Partner or family members opposed to using []	4
	Side effects []	5
	Lack of knowledge []	6
	Infrequent sex []	7
	Hard to get the preferred methods []	8
	Too costly []	9
	Counselling received about contraceptives []	10
	Cultural or traditional beliefs []	11
	Other, specify	

SECTION F: PREFERRED FAMILY SIZE

PQ.1	Do you have any child or children?	Yes []			1
		No []			2
PQ.1a	How many people are in this household?			NA	
PQ.1b	How many children under five?			NA	
PQ.1c	How many adult males including you?			NA	
PQ.1d	How many adult females are in this household			NA	
PQ.2	How many biological children do you have?			NA	

PQ.2a	How many of them in living with you?			NA	
PQ.2b	How many of them are living elsewhere?			NA	
PQ.3	Before you gave birth to your child/children, how many children would you have like to give birth to?			NA	
PQ.4	How many of these children would you like to be boys?			NA	
PQ.5	How many would you like to be girls?			NA	
PQ.6	What is the reason for the preferred sex of children				
PQ.7	Have you ever discussed with your partner the number of children you may want to give birth to?	Yes	☐		1
		No	☐		2
PQ.8	If No explain				
PQ.9	Have you ever been pressed by your parents/ in-laws/ relations to have more children?	Yes	☐		1
		No	☐		2
PQ.10	If yes give reasons.	Children are of one particular sex	☐		1
		Being an only child	☐		2
		Not having many children in the extended family	☐		3
		Other (specify).....			

SECTION G: MALE SUPPORT IN THE USE OF CONTRACEPTIVES AND FAMILY PLANNING.

MQ.1	How were you introduced to contraceptives?	At the clinic/CHPS/Hospital ☐	1
		At the workplace ☐	2
		Through a friend/relative ☐	3
		Church/Mosque ☐	4
		Other(specify).....	5
		NA	8
MQ.2	Has your partner ever used any contraception before?	Yes ☐	1
		No ☐	2
		Don't know ☐	3
MQ.3	Has your partner ever used any modern method of contraception before?	Yes ☐	1
		No ☐	2
		Don't know ☐	3
MQ.4	Which of these family planning methods has your partner ever used? (tick as many)	Female sterilization ☐	1
		Condom (female& male) ☐	2
		Implants ☐	3
		Injectables ☐	4
		Pills ☐	5
		IUCD ☐	6
		Spermicides ☐	7
		Diaphragm ☐	9
		Lactational amenorrhea ☐	10
		Male sterilization ☐	11

		Other specify	
		NA ☐	8
MQ.5	Is your partner currently using modern contraception?	Yse ☐	1
		No ☐	2
		Don't know ☐	3
MQ.6	Which one is your partner using now?	Female sterilization ☐	1
		Condom (female & male) ☐	2
		Implants ☐	3
		Injectables ☐	4
		Pills ☐	5
		IUCD ☐	6
		Spermicides ☐	7
		Diaphragm ☐	8
		Lactational amenorrhea ☐	9
		Male sterilization ☐	10
		Other specify	
MQ.7	In your own opinion, why did your partner decide to use family planning?	To space children ☐	1
		Cannot afford to look after many children ☐	2
		To stop having children ☐	3
		Other (specify).....	4
MQ.8	Did you and your partner discuss	Yes ☐	1

	the choice of the contraceptive before using it?	No ☐	2
MQ.9	How often do you accompany your partner to the family planning clinic?	Just once ☐	1
		Every time ☐	2
		Sometimes ☐	3
		Other (specify).....	
		Never	4
MQ.10	What is the reason for accompanying her?		
MQ.11	Who usually pays for the services?	Myself ☐	1
		My partner ☐	2
		NA ☐	3
MQ.12	How long has she been using it?	0-1 month ☐	1
		1-2 months ☐	2
		2-3 months ☐	3
		3-4 months ☐	4
		Other (specify).....	
MQ.13	Who decides on family planning?	Myself	1

		The woman	2
		Both	3

SECTION H: HEALTH FACILITY FACTORS

HQ.1	Have you ever received contraceptive education from a health worker before?	Yes []	1
		No []	2
		NA []	8
HQ.2	Have you ever received information about the side effects of modern contraceptives from a health worker/family planning service before?	Yes []	1
		No []	2
		NA []	8
HQ.3	How long will it take you from your compound to the nearest health facility where you could access modern contraception?		
	Minutes....., []		
	Hours.....[]		
HQ.4	Have you heard of any side effect associated with modern contraceptive use?	Yes []	1
		No []	2
HQ.5	If HQ.4 is Yes...mention the side effect		
HQ.5a			
HQ.5b			
HQ.5c			
HQ.6	Which of the side effects have you ever experienced?		
HQ.7	Which of the side effects has your partner ever experienced?		

THANK YOU

APPENDIX IV: ETHICAL APPROVAL LETTER

*In case of reply the
number and date of this
Letter should be quoted.*

MyRef: GHS/RDD/ERC/Admin/App 120/105
Your Ref. No.

Anthony Akpatsu
Nursing Training College
P. O. Box 37
Sefwi Wiawso
Western North Region

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE



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Ghana Health Service
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13th March, 2020

The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation of your Study Protocol.

GHS-ERC Number	GHS-ERC 075/03/20
Project Title	Men's Acceptance of their Female Partners Use of Modern Contraceptives in Sefwi Wiawso Municipality
Approval Date	13 th March, 2020
Expiry Date	12 th March, 2021
GHS-ERC Decision	Approved

This approval requires the following from the Principal Investigator

- Submission of yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report after completion of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.
- Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and after implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol

SIGNED.....

Dr. Cynthia Bannerman
(GHS-ERC Chairperson)

Cc: The Director, Research & Development Division, Ghana Health Service, Accra