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DETERMINANTS OF MODERN CONTRACEPTIVE USE AMONG MARKET WOMEN OF THE ASHAIMAN MARKET IN THE GREATER ACCRA REGION, GHANA

BY

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DECLARATION

I, Agnes Asiedu do hereby declare that, apart from references made to works done by other authors which have been duly acknowledged, this work was done by me under supervision. I further declare that this work has not been submitted for the award of degree in this university or any other university.

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(STUDENT)	**SIGNATURE**	**DATE**

DR.JOHN KUUMUORI GANLE	**…**	**…**	**…24/07/2017**
(ACADEMIC SUPERVISOR)	**SIGNATURE**		**DATE**

DEDICATION

I dedicate this dissertation to the Almighty God who knows all things and to my daughters especially Amma Sika who had to go through the emotional pain of having to live with two different people in the space of 11 months while I was studying.

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To the most High God be glory and honour for His goodness and wonderful love in all He has done for me and the greater things He is yet to do.

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ABSTRACT

Background: The use of modern contraceptive methods still remains low in sub-Saharan Africa despite the enormous benefits that could be derived from their use. Modern contraceptive use has played a key role in reducing the world's total fertility rate, especially in developing countries, including Ghana. However, few empirical studies have been done in the Ashaiman Municipal Area of Ghana- a place where fertility rate is high-to identify the factors influencing the uptake of modern contraceptives. This study therefore aimed to identifying the determinants of modern contraceptive use among market women in the Ashaiman municipality.

Methods: The study employed a cross sectional design. A structured questionnaire was used in gathering data from a total of 290 market women of reproductive age (18-49 years) just for the purpose of study in the Ashaiman market. Descriptive, bivariate and logistic regression analysis techniques were used to analyze the data.

Results: The study found that there was a universal awareness of modern contraceptives among the respondents. However the use of contraceptive was relatively low (37%). Socio-demographic factors such as the age and educational status of women were not significantly associated with use of modern contraceptives. A significant proportion (68.4%) of women who thought using modern contraceptives was bad were not using modern contraceptive ($p<0.020$). Fear of the side effects ($p<0.021$), the cost of the service ($p<0.030$) were also found to be associated with the use of modern contraceptive among the market women.

Conclusions: Based on these findings, the study recommends educational programmes to address real and perceived side effects, as well as to ensure that women know what to expect when using modern contraceptive methods.

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CHPS- Community-based health planning and services

DHS- Demographic Health Survey

EC- Emergency Contraceptive

GSS- Ghana Statistical Service

IUD- Intra-Uterine Device

LARC- Long Acting Reversible Contraceptive

MCE- Municipal Chief Executive

MOH- Ministry of Health

NGO- Non-governmental Organization

PHC- Population and Housing Census

SDG- Sustainable Development Goals

DEFINITION OF TERMS

Attitude towards modern contraceptives: This is what the respondents feel about modern methods of contraceptives and their willingness to use them

Availability: This is how easy respondents say modern contraceptives are to them.

Cultural beliefs: These are the beliefs of the respondents about modern contraceptives

Knowledge of modern contraceptive: This is what the respondents know about the different types of modern contraceptives and how they are used.

Modern Contraceptives: These are devices used to prevent pregnancy occurrence.

Side effects: These are negative experiences respondents have about modern contraceptives

Use of modern contraceptive: This is the consistent use of modern contraceptive to prevent pregnancy

CHAPTER ONE

INTRODUCTION

1.1. Background to the study

The introduction of modern contraceptive methods has been acknowledged as an important tool towards national development and is seen as a viable solution to control fast growing populations. It is also a cost-effective strategy in enhancing socio-economic wellness especially in countries that are poorly developed (Alemayehu, Belachew, & Tilahun, 2012). In addition to enabling spacing and limiting the number of children to families, modern contraceptive use helps to improve maternal and child health, empower women and enhances economic development (Mekonnen & Worku, 2011).

The United Nations Sustainable Development Goal (SDG) three seeks among other things to eliminate maternal and child mortality and improve health for all by 2030. The use of modern contraceptives is recognized as an important intervention towards achieving this target (Apanga & Adam, 2015). Evidence from research indicates that modern contraceptive use by couples to space childbirth by at least two years has the potential to avert 35% of maternal deaths and 13% of child mortalities while 25% of deaths occurring in children below five could be prevented from happening had birth intervals were minimum of three years apart (Eliason, Awoonor-williams, Eliason, Nonvignon, Nonvignon & Aikins., 2014).

Promoting modern contraceptive use has always been tagged as being of national importance in the governance of Ghana for some years as a key tool in population control related issues. It is therefore documented in the national development agenda Development Agenda II: 2014-2017 (GSS, 2014). Among the major sectors requiring urgent attention is the health sector with emphasis on reproductive health and the related commodities such as condoms Security Strategy (2011-2016).

With all these efforts, Ghana still records low modern contraceptive use of (23%). As it pertains in other West African countries, Ghana may miss its desired contraceptive prevalence target of 50% by the year 2020 (Adjei, Laar, Narh, et al., 2015).

The low uptake of modern contraceptive methods is affected by the interplay between various factors such as geographic differences yet little is understood as why they exist. A study has cited individual and household factors to account for some of these variations in modern contraceptive use (Stephenson, Baschieri, Clements, Hennink, & Madise, 2007). Existing community sense of belonging to one another with binding factors such as cultural beliefs, the presence and quality of reproductive health services, the physical characteristics of the area, income earning activities of a given human settlement and the presence of transportation routes have all been found as elements of the geographical variations in modern contraceptive use (Stephenson et al., 2007).

Also, it has been observed that awareness of the availability of modern contraceptive services has a great influence on the uptake of the services. Even though 98% of Ghanaian women are aware of the availability of modern contraceptives, they are not properly informed about the various forms of modern contraceptive methods and how they work (GSS et al., 2015). Additionally, inadequate counseling on the side effects of some of the modern contraceptive methods, access to modern contraceptive services, and religious inclination have been noted to be major determinants of the uptake of modern contraceptives (Apanga & Adam, 2015). This means that the determinants of modern contraceptive uptake are varied. Thus, the need to explore factors that prevail in different areas in order to adopt relevant measures aimed at promoting the uptake of modern contraceptives.

1.2. Problem statement

The number of women who use modern contraceptive methods still remains low among dwellers in Sub-Saharan Africa despite the enormous benefits that could be derived from contraceptive use. Modern contraceptive use has been known to have helped reduce the total fertility rate worldwide and to a larger extent in less developed countries (Mehra, Agardh & Petterson., 2012). Unfortunately, low use of modern contraceptives is the reason for the several unintended pregnancies, unplanned deliveries, and unsafe abortions and maternal deaths in sub-Saharan Africa, including Ghana (Eliason, Awoonor-Williams, Eliason, Nonvignon, Nonvignon & Aikens 2014).

Further, a woman who does not want to have another child becomes greatly bothered if it does happen. Unplanned pregnancies pose a growing concern for public health attention especially, in less endowed nations (Apanga & Adam, 2015). All over the world, out of the estimated 210 million pregnancies that occur every year, 80 million (38%) are unplanned and 46 million (22%) end up as abortions (Apanga & Adam, 2015). Using modern contraceptive methods is reported as a plausible solution towards addressing this public health challenge (Apanga &Adam, 2015).

Promoting the use of modern contraceptives in sub-Saharan Africa has been a major challenge. Ghana, like the rest of West African countries still records low prevalence of modern contraceptive use despite numerous efforts made by the state her development partners to improve the uptake of modern methods of contraception (Hiddin, Mcgough & Adanu., 2014). Only 22% of married women are using modern contraceptives while about 24% use any method including traditional family planning methods (Hindin et al., 2014).

The Ashaiman municipality is one of the urban centres situated in Ghana's capital region, Accra where its general fertility rate is so high at 77.5/1000 live birth. This rate is a little

above the regional average of 75.7 per thousand women aged 15-49 years (GSS, 2014). According to the Ashaiman District Health Information Management System report (ADHIMS, 2015) for the Ashaiman municipality, 18% of modern contraceptive use was reported in 2015 which was below the 22 % national prevalence of modern contraceptive use.

While anecdotal evidence indicate that modern contraceptive use is low and the number of abortion cases in the Ashaiman Municipal Area (ADHIMS, 2015) is on the rise, no known specific study has been done to understand the factors influencing the use of contraceptives among market women. This knowledge gap could potentially hamper effective planning and delivery of sexual and reproductive healthcare services. Acquiring knowledge about the reasons behind facility based family methods preferred by market women could therefore constitute an important step towards effective delivery of family planning and modern contraceptive services to women. This study therefore seeks to fill this lacuna by identifying the reasons for choosing to use modern contraceptives by women in the Ashaiman Market.

1.3. Objectives

1.3.1. General objective

The general objective of the study is to assess the determinants of modern contraceptive use among market women in the Ashaiman municipality of the Greater Accra Region.

1.3.2. Specific objectives

The specific objectives of this study are to:

1. Determine the current modern contraceptive prevalence among market women in the Ashaiman Market

2. Identify the preferred modern contraceptive method among women in the Ashaiman Market

3. Examine the factors determining modern contraceptive use among market women of the Ashaiman market.

1.4. Research Questions

To achieve the research objectives above the following research questions were investigated.

1 What is the current modern contraceptive prevalence among market women of the Ashaiman market?

2 What are the preferred modern contraceptive methods among Ashaiman market women?

3 What are the determinants of modern contraceptives among Ashaiman market women?

1.5. Justification

The results of this could be used in planning reproductive health services especially in respect of increasing modern contraceptives use among market women. This could enable women to have fewer and healthier children and allow for financial plans for better care of every child they bear regarding education and overall development. Moreover, identifying and addressing the bases of contemporary practice of contraceptive amidst market women in the Ashaiman market would contribute towards combating population growth in the Ashaiman municipality through reduction in fertility rates, reducing maternal and child mortality as well as saving a lot of commitments could have been spent on treating life

threatening complications that often arise from unintended pregnancies (Ekorinyang, 2015). Also, the findings of the study would be considered at the level for policy makers and interventionists when addressing the reproductive life goals of one of the vulnerable women groups such as market women relative to modern contraceptive use.

1.6 Organization of the Dissertation

This study is prearranged into six chapters, chapter one looks at the background, statement of the problem, the justification for the study, objectives of the study and research questions. Chapter two reviews relevant literature and the conceptual framework for the study, chapter three describes the study design, target population, sample size, sampling procedure, the research instruments, data and sources, data processing and analysis, and the ethical issues arising from the research. Chapter four presents the study results while the results are discussed in chapter five. Finally, chapter six gives out the conclusions and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter reviewed existing studies in relation to modern contraceptive prevalence and the factors associated with use. The review focused on the concept of contraception, types of modern contraceptives, awareness and knowledge of modern contraceptives among women, and factors determining use of modern contraceptives among women. The conceptual framework of the study is also discussed.

2.2. The concept of contraception

Contraception is the use of birth control methods to determine the number of children a family would have and even after those children are born (Andi, Wamala, Ocaya, & Kabagenyi, 2014). The human race has long sought to control births through contraception. Abstinence, withdrawal, and abortion are age-old techniques, sanctioned by many ancient societies (Seltzer, 2002). The barrier methods such as vaginal sponges and cervical caps were commonly used in some Asia countries such as Turkey thousands of years before Christ (Andi et al., 2014). In the seventeenth- and eighteenth-century Europe, condoms (made of linen or dried sheep gut), vaginal sponges, and pessaries were available in some countries (Seltzer, 2002). In 1843 the vulcanization process allowed the production of more reliable rubber contraceptive devices, and the diaphragm, or "Dutch cap," which gained great popularity in the Netherlands in the late nineteenth century. Intra Uterine Devices (IUD) and spermicides were also used in Europe at the time (Seltzer, 2002).

The first major public advocates of birth control were the English radical neo-Malthusians. Although, Malthus had warned of the dire consequences of rapid population growth, he had

opposed contraception in principle and had deployed his arguments mainly to justify the wide gap between rich and poor in late-eighteenth Century Britain (Seltzer, 2002). According to him, welfare measures such as England's Poor Laws only led to further impoverishment, since they enabled the poor to breed more (Seltzer, 2002). The radical neo-Malthusians, by contrast, viewed overpopulation as a cause of poverty and believed that contraception use by the poor to have fewer children, could help to alleviate poverty and improve the condition of the working class (Seltzer, 2002). Hence modern contraceptives are viewed as ways through which rapid population growth can be controlled and also to promote maternal and child health. Modern contraceptives are further seen as an effective strategy towards improving the socio-economic development of countries worldwide (Apanga & Adam, 2015).

Modern contraceptives and reproductive health issues continue to gain attention in many health care settings across the globe in view of their important role in population growth and maternal and child mortality, especially in developing countries (Appiah-Agyekum & Kayi, 2013). Studies have shown that the modern contraceptive use rate of a country correlates with its maternal deaths, and further proven that less developed countries sadly also have low contraceptive prevalence and hence the high numbers of women dying with pregnancy and childbirth related causes (Egede, Onoh, Umeora, Iyoke, Djimesi & Lawani 2015).

Being one of the nations in the sub region to endorse family planning as a population control policy much earlier, Ghana is yet to attain its modern contraceptive target of 50% by the year 2020 (Osei & Harding, 2014). Even though, over the years, some efforts have been made by the Government of Ghana and non-governmental organizations towards improving the coverage of modern contraceptive services in the country, recent data suggest that unmet need for modern contraceptive still remains high (GSS, 2014; Apanga & Adam, 2015).

2.3 Types of contraceptives

There are many contraceptive drugs and devices that can be used for contraception which been categorized for ease of understanding and are discussed along five main classifications as follows; hormonal methods, Intrauterine Contraceptive Device (IUCD), mechanical barriers, emergency contraception and others known as natural methods.

2.3.1 Hormonal methods

These are comprised of the oral pill which comes in two forms, the combined oral contraceptive (COC), progestogen-only pill (POP) also called "the pill", transdermal combined hormonal patch (the patch), combined hormonal vaginal pessaries, combined hormonal injectable and progestogen-only methods (Obstetricians and Gynaecology,2004). Progestogen-only method of contraceptives comprising of injectable and implants. Their mechanism of action is mainly to thicken the cervical mucus just to slow down the movement of the spermatozoa and also make the uterine lining unsuitable for embedding. The oral pills are recommended to be swallowed daily around the same time every day for its efficacy to be achieved (Obstetricians and Gynaecology, 2004). Implants are rubber capsules containing progestogen and requires minor procedure by a skillfully trained provider to place it under the skin of the woman's arm that she uses less frequently under local anesthesia (Obstetricians and Gynaecology, 2004). The hormone is released into the body steadily into the blood stream to offer a highly effective contraception that is also easily reversible (Melles, 2007). Combined Oral Contraceptive (COC) methods contain synthetic steroidal combination of oestrogen and progestogen in small amounts and it works by stopping the release of the female egg. The benefits of COCs include effectiveness, client -controlled, easily reversible with no need of any procedure and no risk of over dose (Obstetricians and Gynaecology, 2004). However, the most significant unwanted effects are the changes in the bleeding pattern and the body weight (Melles, 2007).

2.3.2 Intrauterine Contraceptives Device (IUCD)

Intrauterine contraceptives device (IUCD) are inserted into the uterus when the provider is reasonably sure the woman is not pregnant. IUCDs work by making the uterine lining uncomfortable for implantation. Advantages of copper IUDs include safety, effectiveness, high continuation rates, and reversibility. Potential negative or unwanted effects however include expulsion, perforation, malpositioning, pain and bleeding (Melles, 2007).

2.3.3 Barrier methods

These methods provides mechanical barrier to stop the sperm from coming into contact with the female egg. The common examples are the male and female condoms, diaphragms and cervical cap. They have the advantage of being easily available, do not require provider presence before they can be used and provides protection against sexually transmitted diseases, very safe and at a reasonable cost (Melles, 2007).Vaginal film is a thin sheet containing a minimal dosage of hormone placed on the cervix turning into a gel just before intercourse. The vaginal sponge is a barrier method of preventing pregnancy. It mechanically blocks the cervix and is very effective when used by young women who have never given birth (Melles, 2007).

2.3.4 Post-coital contraception

Post-coital contraception commonly known as emergency contraception. Melles (2007) described the types of emergency contraception as combined oral emergency contraceptives, progestogen-only contraceptives swallowed within 72 hours of unprotected vaginal sex and insertion of a copper IUD within 5 days of unprotected sex before implantation (Melles, 2007). Other varieties like the vaginal ring, the contraceptive sponge and the transdermal patch is not available in Ghana.

2.3.5 Natural methods

These methods of family planning are based on observing a woman's own body and changes in her menstrual cycle to determine when she is safe for intercourse without getting herself pregnant when she does not want it but would time herself if she desires to achieve conception. Practicing natural methods offers the gains such as the absence of any known side effects and no scheduled appointment to visit the facility. The method requires some level of discipline and daily recordings. Some of the widely known natural methods are observing changes in the cervical mucus, daily recording of a woman's body temperature and calendar or rhythm method (Clottey, 2012).

2.4. Awareness and knowledge of modern contraceptives among women

A good knowledge of the different types or methods of modern contraceptives and how they function will clear a lot of misperceptions associated with modern contraceptives. This will make users better informed and more confident in deciding which method to use. For instance, in industrialized countries with high knowledge level, virtually all married women use one form of modern contraceptive at some time in their reproductive lives (Morgan, 2014). The picture in developing countries is different as modern contraceptive use is extremely low (Egede et al., 2015).

Studies in Ghana have found low knowledge of how various modern contraceptive methods work and therefore act as a barrier to modern contraceptive use in Ghana (Hindin, Mcgough & Adanu, 2014). Meanwhile, the current knowledge of any family planning method in Ghana among women is almost hundred percent (98%) (Amalba, Mogre, Appiah, & Mumuni, 2014). In addition, studies have found an association between knowledge of long acting reversible contraceptives (LARC) method and use (Anguzu, Tweheyo, Sakendi, Zalwango, Muhumuza & Serwadda, 2014). But another study in Sikkim in India revealed

that knowledge level of modern contraceptives did not lead to the use of contraceptives and so it is necessary to focus on other factors determining modern contraceptive use aside creation of knowledge about the methods (Prachi et al., 2008).

It is thus obvious that although knowledge of modern contraceptives is important in promoting use of modern contraceptives, there is the need to explore other factors that determine modern contraceptive use in order to holistically tackle the issue of low modern contraceptive use. In Ghana, modern contraceptive knowledge is acquired through several platforms such as schools, both print and electronic media which carry advertisements and educational messages aimed at sensitizing the public about modern contraceptives in order to create knowledge and awareness. This is expected to result in usage of modern contraceptives (Hindin, Mcgough & Adanu, 2014). Mostly, these educative programmes are undertaken by the Ghana Health Service and development partners and non-governmental organizations. Other studies in Ghana have reported other means of knowledge creation of modern contraceptive methods through the use of communication channels such as conversation, the town crier, the market place and churches (Asamoah et al., 2013).

Osei et al., (2014) in their study to assess the decisions on fertility and modern contraceptive use by women in the course of their relationships, learnt that study participants were very knowledgeable on the various types of modern contraceptives available in Ghana. The most commonly method mentioned were the male condom, the calendar method and the injectable, the pill, the Intra Uterine Device (IUD), the implant and spermicides. However, very few of them had fair knowledge on female sterilization, male sterilization and emergency contraception.

Due to lack of knowledge on available modern contraceptives to serve their needs over 200 million women in developing countries get themselves pregnant when they could have

delayed or even stopped bearing children altogether (Kabagenyi et al., 2014). This serves as a barrier and thus, preventing them from modern contraceptive use. However, other studies on contraceptive prevalence and preference in Nigeria showed that despite high knowledge level and awareness of modern contraceptive options, the contraceptive prevalence rate was only 15% among women in the reproductive age group (Egede et al., 2015). A study in Uganda also found that approximately 97% of all people of reproductive age were acquainted with at least one method of contraception yet that does not translate into behavior or contraceptive use for no clear reasons (Mehra et al, 2012).

2.5. Modern contraceptive use among women

Globally, organized efforts of programmes to provide contraceptives to women were one of the major social and health interventions in the second half of the 20th century. As of 1998, 179 governments, representing 92 percent of governments where over 99 percent of the world's population lived, supported access to contraception (Seltzer, 2002).

Worldwide, in spite of existing national programmes on contraceptives, about one in three women who desires to space (16%) or limit (13%) the birth of an additional child have restricted access to contraceptive use (Wulifan, Brenner, Jahn, & Allegri, 2016).

In Ghana presently, current modern contraceptive use among married women has risen slowly, from 13% in 1998 to 17% in 2008 and 22% in 2014 (Ivy et al., 2014). The rate of current users of any method is 23% among all women, 27% among currently married women, and 45% among sexually active unmarried women (GSS, 2014). Young women in the lowest age range of 15-19 are least users (19%), mostly because they are in the early stages of family building, whereas 18% of oldest women aged 45-49 use because some of them are no longer fecund. Injectable remains the extensively used means of contraception amongst currently married women (8%), trailed by the implants and the pill (5% each) (GSS, 2014).

2.6 Factors determining use of modern contraceptives among women

An interplay of various factors that determine the use of modern contraceptives among women. These include the individual woman level factors, household or community level factors and health service level factor. At the individual level, fear of side effects, cost of service, distance to the clinic, non-availability of family planning service and poor services from provider has been reported as leading determinants in the choice and use of modern contraceptives. Many women worry greatly over whether to practice contemporary methods of contraception because she would have to consider community factors regarding family planning, her own personal needs as well as the type of sexual union she is involved in (Hindin et al., 2014).

The practice of contraception is expected to increase with improvement in socio-economic status. But a study conducted in Accra, Ghana, where family planning service is subsidized to the client showed contrary results (Adanu et al., 2009). The need to making family planning services in poor developing nations cost-effective is an important indicator toward poverty reduction and socio-economic development. A study in Bangladesh conducted to assess the effects of family planning and maternal and child (FPMCH) programmes confirmed that modern contraceptive use greatly enhanced to improve financial status of families, households and the entire communities; lead to better living conditions for all (Eliason.et al., (2014).

Couples and individuals, who live in poor countries to improve their economic status especially in the developing world, could have a comfortable life if they should plan their families using family planning to limit the number of births or delay the next pregnancy. This would afford them the time to focus on their economic activities, pursue career goals and a general improvement in life (Eliason et al., (2014).

2.6.1. Attitude towards modern contraceptive methods

A positive attitude towards modern contraceptive methods is viewed as integral to the success of any campaign to promote usage. It is crucial to adopt innovative ways of building positive attitude among the public relative to modern contraceptive use (Bulto, Zewdie, & Beyen, 2014).

Thus adequate knowledge and awareness of modern contraceptive methods is expected to impact on women's attitude and usage. But research shows that in spite of the numerous programmes initiated to create knowledge and awareness through the radio, television and print media about the benefits of using modern contraceptive methods, there exists clear evidence that this has not achieved the desired impact of changing people's attitude. For instance, 78.5% of the sub-population that affirmed the existence of reproductive health centers in their neighborhood in Nigeria was unwilling to buy modern contraceptive methods at the centers (Okereke, 2010).

In a study to evaluate attitudes of young women toward emergency contraceptive which is a modern contraceptive method after an educational intervention, the young women were asked the open-ended question "What do you think of it?" Their answers were categorized as "clearly liking it" (coded 1 for a "positive attitude" toward EC) versus "clearly disliking it" or "hard to tell" (each coded 0 for "not having a positive attitude" toward EC). Those categorized as having a positive attitude toward EC gave qualitative responses such as "it's a good way to prevent pregnancy," "I would use it," or "more people should know about it." Those categorized as not having a positive attitude toward EC said "I think it's wrong, because it's like an abortion" or "it will mess your body." (Aiken, Gold, & Parker, 2005).

Furthermore, a study in has demonstrated differences in modern contraceptive use among women with different social and cultural backgrounds suggesting that background of

women may influence their attitudes toward modern contraceptive (Erlenwein et al., 2015).

2.6.2. Availability of modern contraceptive methods

The usage of modern contraceptives is dependent on their availability and access to a full range of modern contraceptives in low- and middle-income countries (Bajracharya, Veasnakiry, & Rathavy, 2010). Research indicates that ensuring the availability of modern contraceptive methods is key to promoting their usage. Hence there is the need to give adequate attention to making modern contraceptives available in the same way as attention is given to knowledge and awareness creation by various family health programs (Amalba, Mogre, Appiah & Mumuni 2014).

A comparative study on the availability of modern contraceptives in public and private health facilities in a peri-urban community in Ghana revealed that the combined oral contraceptives was widely available in most health facilities (Adjei et al., 2015). Eighty-four percent of private facilities had oral contraceptives compared to seventy-five percent of public facilities but there was no statistically significant relationship between availability of combined oral contraceptives and the type of health facility (private/public). The male condom was another type of the modern contraceptives that was highly available. Seventy-nine percent of private facilities had male condoms compared to seventy-five percent of public facilities. The male condoms were mostly available in pharmacies (Adjei et al., 2015).

2.6. 3. Cultural beliefs and modern contraceptive use

In most African countries, the use of modern contraceptives by women is greatly influenced by various cultural and societal beliefs and tend to act as barriers towards modern contraceptive use. Several social norms and pressures govern sexuality and gender roles, such as expectations for women to be sexually passive to safeguard their dignity and honor.

Thus, the gender power dynamics within the relationship does not give the woman the autonomy to make decisions regarding modern contraceptive use (Osei et al., 2014).

Stephenson et al. (2007) conducted a study on contextual influences on modern contraceptive use in six Sub-Saharan African countries including Ghana. The report found that contextual factors such as community-level cultural beliefs play a significant role in women's decisions relative to modern contraceptive use. For instance, it was found that, in Ghana and Tanzania, the level of community approval of modern contraceptives had a larger effect on use than did the perceived approval of the woman's partner. Thus, it is helpful to understand the difficulties women go through when making contraceptive decisions throughout their reproductive lives and at different stages of a sexual relationship and identification of these cultural beliefs (Osei et al., 2014).

2.6.4. Fear of side effects

According to Hindin et al. (2014), fear of side effects especially is the greatest deterrent against contraceptive perceived belief that it impairs fertility.

A study conducted in Accra that looked what influences the use contraceptive devices at different stages had respondents sharing different experiences some of which led to method switch or discontinuation. One woman, commented: "I don't think I will do injection again because sometimes I will be bleeding for about two months. I continued bleeding and in fact, [the vagina] became tender, washing yourself was painful" (Osei et al., 2014).

One study in Nigeria also found that one of the major reasons for non-use of modern contraceptives is the fear of adverse side effects among other factors (Egede et al., 2015).

2.6.5. Presence of health services

The presence of quality reproductive health services have been suggested as a determinant of modern contraceptive use. At the community level, studies of contraceptive use have

focused on the influence of health service characteristics (Stephenson et al., 2007).

However, Apanga and Adam (2015), found that despite the provision of free modern contraceptives in the Talensi District of the Upper East Region of Ghana, the district reported 19% contraceptive acceptor rate in 2013, which was below the Ghana Health Service national modern contraceptive acceptor target rate of 23.3%. Thus, it is unlikely that characteristics of the health services in a community alone can account for modern contraceptive use (Stephenson et al., 2007).

2.7. Conceptual Framework

Figure 1 depicts the conceptual framework used to guide the conduct of this study. The conceptual framework is a modification of the Andersen and Newman Framework of health services utilization also known as the Andersen Newman model of health seeking behaviour. However, for the purposes of this study it is referred to only as the Andersen and Newman Framework of Health Services Utilization. This framework sought to expose conditions, which facilitate or impede utilization of modern contraceptives.

The goal is to develop a behavioural model that provides measures of access to medical care. An individual's access to and use of health services is considered to be a function of three characteristics: provider factors which seeks to establish the relationship or communication between the patients and the provider of the service; predisposing factors which is the knowledge one has about the health care services and the socio-cultural characteristics of individuals including religious belief and custom.

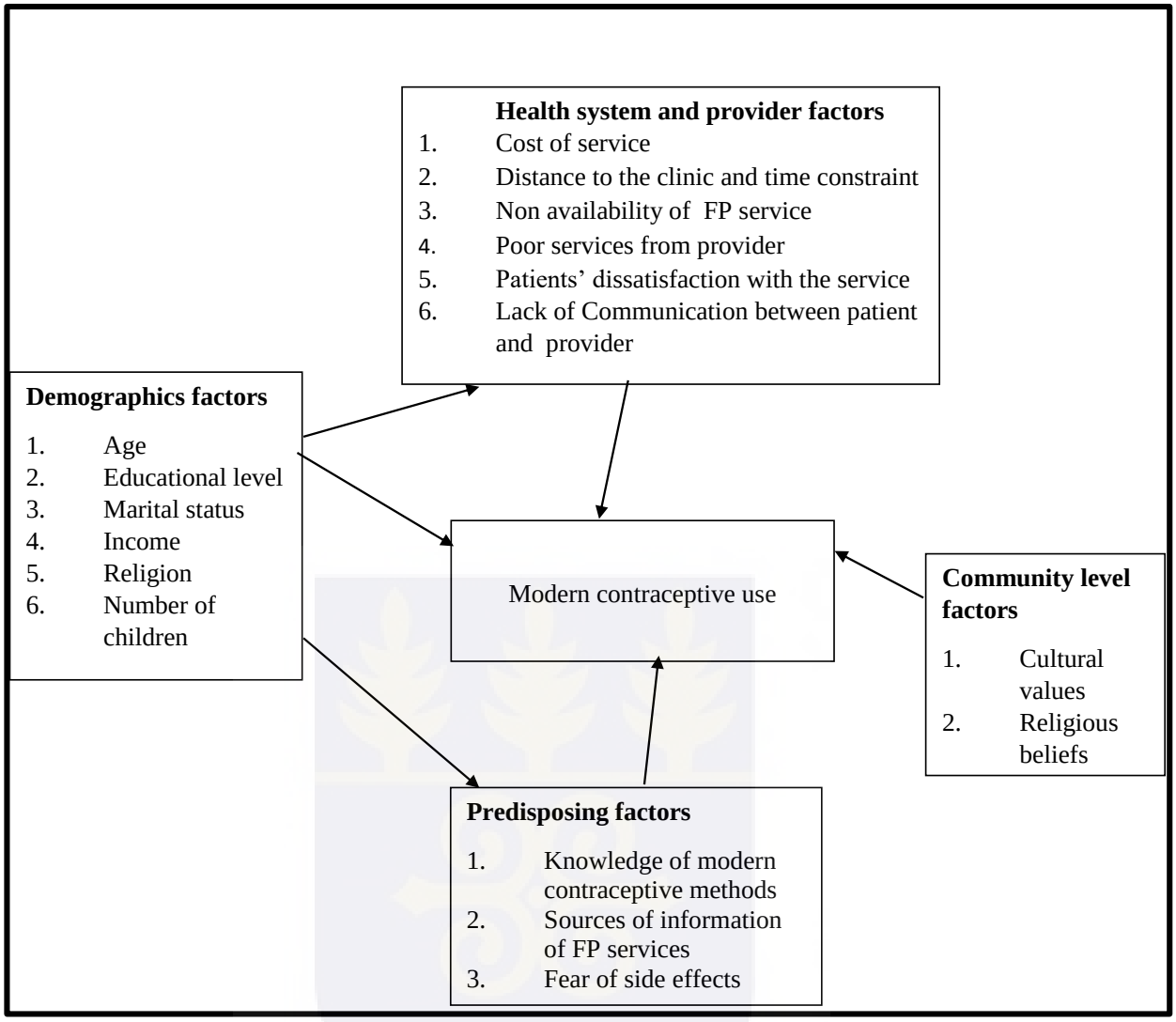

Figure 1: Conceptual framework for the study
(Source: modified from Newman and Anderson, 2001)

The use of modern contraceptives is determined by various factors ranging from individual and household demographic and socioeconomic determinants such as age, education, marital status and income (Stephenson et al., 2007).

Acquiring knowledge about contraceptive methods is an important step towards gaining access to family planning services and opting for a suitable contraceptive method. Knowledge and use of contraceptive information, has a direct and indirect influence on contraceptive use. Directly, a more enlightened person on contraceptive may use it whereas

the less enlightened, may doubt its effectiveness and benefit and may become unattractive to use. Indirectly, issues of social acceptability and accessibility may affect contraceptive use. In some instances, society may not accept contraceptives due to cultural, religious and economic reasons, worsened by poor provider attitude and cost of service. A woman enlightened on contraceptives usage could deal with hindrances to non-use.

At the individual level, fear of side effects, cost of service, distance to the clinic, non-availability of family planning service and poor services from provider has been reported as a leading determinant in the choice and use of modern contraceptives. Again, some women would only use contraceptives after considering their religious convictions. Consequently, the choice of a modern method is knitted in a web of social uncertainties (Hindin et al., 2014). The methods and sources of information have been largely identified as major determinants of modern contraceptive use (Achana et al., 2015).

2.8 Summary

Although there is literature on the determinant of modern contraceptives use among market women, most of these studies were carried out in other parts of Africa but not much has been done in Ghana Andy E., Achema G. & Omale P.O, 2014. Also, most of the studies do not bring out the reasons why women do not use modern contraceptives. This study therefore examined the reasons for this phenomenon and also contribute to existing literature to facilitate future studies. Chapter three discusses the methods employed in the study.

CHAPTER THREE

METHODS

3.1. Introduction

This chapter presents the methods and procedures that were followed in conducting the study. It discusses the study design, study area, study population, sample size and sampling techniques, data collection methods and instruments, quality control, data analysis and ethical considerations.

3.2. Study design

The study design was cross-sectional in nature. A quantitative survey method using structured questionnaire was used in gathering data to achieve the objectives of the study.

3.3. Study area

The study was conducted in the Ashaiman market which is located in the Ashaiman Municipal Area. Figure 2 shows the map of the Ashaiman Municipal Area and the market. The Municipal Area is carve d out of Tema Metropolitan Assembly in 2008 by LI 1889 and Local Government Act of 1993 (Act 462) (GSS, 2014). It covers a total land area of about 45 square kilometers and is divided into seven Sub-municipal Areas for the purposes of planning and delivery of health services. The Sub-municipal Areas are Amui Djor, Blackkpatsona, Gbemi, Maamomo, Mantseman, Niiman, and Tsinaiagber (GSS, 2014).

Ashaiman is a peri-urban area that is home to a large number of migrants from different parts of Ghana and other neighbouring West African countries and there has been an exponential increase in the growth of the entire population during the past decades (GSS, 2014).The estimated population is 209,289, from the 2010 Population and Housing Census.

This gives a population density of approximately 4,651people per square kilometer (GSS, 2014).

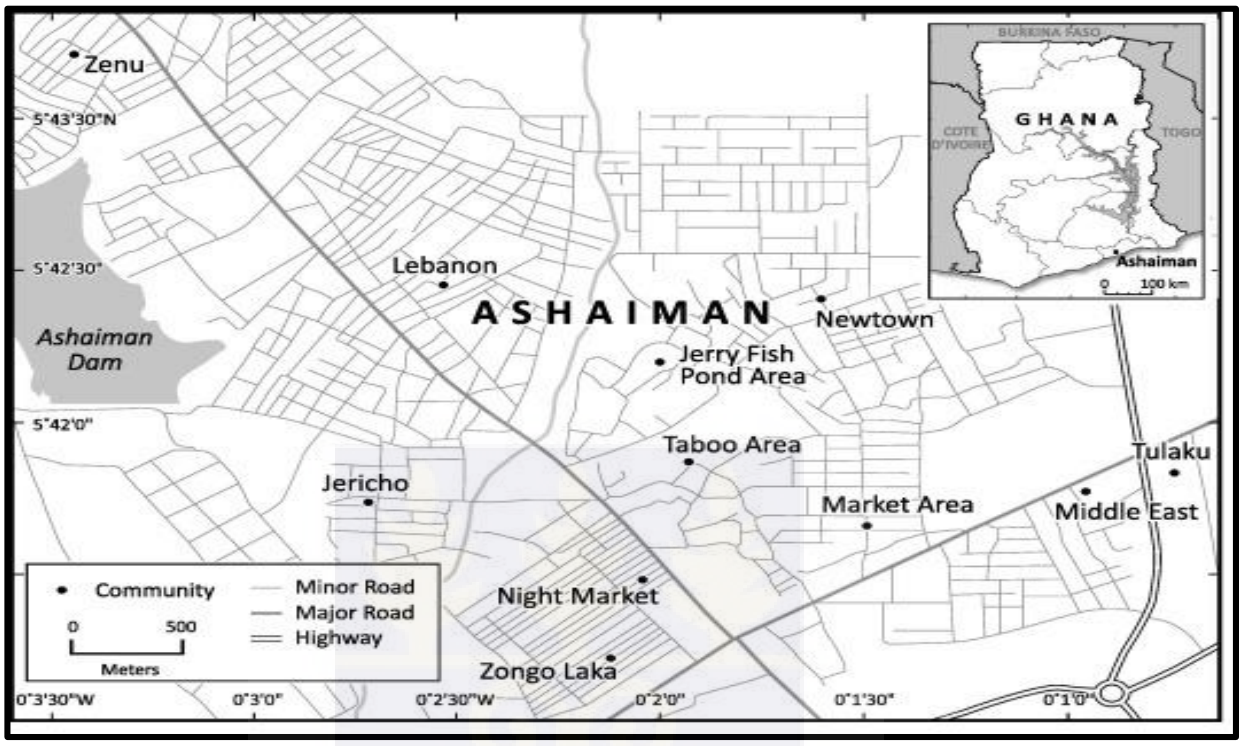

Figure 2: Map of Ashaiman
(Source: Google Maps, 2016)

The 2010 Population and Housing Census (PHC) revealed that on average, there are more females than males in the Municipal Area. The data showed that for every 100 females there are approximately 96 males in the Ashaiman Municipal Area. The total fertility rate is 2.6 (and this is the same as the regional figure) and a crude birth rate of 23.7. The Municipal Area has a general fertility rate of 77.5, which is a little above the regional average of 75.7 per one thousand women (age group 15-49 years) (GSS, 2014).

In terms of the economy of the Municipal Area, the 2010 population and housing census estimates that 91.6% of the economically active population (between 15 and 65 years) in the municipality are employed and the rest 8.4% are unemployed. Of the employed population, 5.3% are in Public Service (Government Sector), 20.5% in the Private formal

sector, 73.1% in the Private informal sector and the remaining 0.9% are in the semi- public, NGOs and other international organizations. Service and sales workers constitute 36.5% of the employed population, which represent the majority of the labour force and is followed by craft and related trade workers (22.0%).

Ashaiman is a cosmopolitan area comprising large numbers of ethnic groups. The major ethnic groups include Ga-Adamgbe, Ewe, Guans, Hausa, Dagomba, Asante, Fante, among others. The Municipal Area is dominated by Christians followed by Moslems and Traditionalist.

There is one Hospital, two Public Clinics, four Health Centres and four CHPS. There are fifteen Private Clinics in the Municipal Area.

3.4. Study population

The study population was market women of reproductive age (18-49 years) in the Ashaiman market.

3.4.1. Inclusion criteria

All market women (18-49 years) who sell items in the Ashaiman market and were willing to participate in the study were included.

3.4.2. Exclusion criteria

Market women (18-49 years) who were younger than 18 years or more than 49 years were excluded from the study.

3.5 Sampling size determination

A sample size of 290 was derived using the Cochran's sample size formula below (Cochran, 1977):

$n = Z^2 P (1-P)/ (d)^2$

Where,

n = sample size required.

Z = confidence level (95% level of confidence - 1.96).

P = Reported national prevalence of modern contraceptive use (22% =0.22) (GSS, 2014).

d = Margin of error (5% =0.05).

Substituting,

$n = (1.96)^2 (0.22x\ 0.78)/ (0.05)^2 = 264.$

Adjusting for 10% of non-response and inappropriately completed questionnaires will give a sample size of 290.

3.6. Sampling methods and procedures

The study deliberately targeted market women within the reproductive ages of 18 – 49 years. A multi-stage sampling technique was used for the study. A stratified sampling technique was applied to select the market women since there are different categories of sellers. A previous study, Worlanyo, (2011) concluded that, 38% of market women deal in foodstuffs, while 16%, 19%, 22% and 5% dealt in provisions, drinks, clothes and textiles and hair dressing respectively. Based on the above, market women were categorized into five strata and the number of participants selected was proportional to the size of each stratum (See Table 3.1 below).

Table 3.1: Stratified Sample of Market Women

Category of Market Women	Percentages	Proportionally Allocated Sample of Market Women
Foodstuffs	38%	110
Provisions	16%	46
Drinks	19%	55
Clothing and Textiles	22%	64
Beauticians and Hairdressers	5%	15
Total Sample Size	**100%**	**290**

Each market woman was approached and the purpose of the study explained to her. Market women who were eligible (women between the ages of 18 – 49 years) and who consented to participate in the study were included in the study. This procedure was followed in all the five strata to obtain the required sample size of 290 market women for the study.

Simple random sampling technique was used to select respondents in each stratum. Women were made to randomly select pieces of folded paper that were placed in a basket. One of the papers was labelled 'YES', and the rest 'NO'. The one who picked yes was included in the study. Where they were not willing to take part in the study, such women were replaced with the next person.

3.7. Data collection methods and tools

A structured questionnaire comprising of close ended questions was constructed by the principal investigator in line with the objectives of the study and administered to study respondents to collect data on participant's characteristics and contraceptive use. The questionnaire was administered with the assistance of two trained research assistants with

public health background. After getting approval from the participants through informed consent, the research assistants administered the questions to the respondents, one at a time, face to face and in their preferred language.

3.8. Pre-test of the study instrument

The questionnaire was pre-tested in the Madina market for the identification of errors before the study. Concerns raised during the pretesting helped in standardizing and finalizing the questionnaire for the study.

3.9. Quality control and data management

The following steps were taken as quality control measures.

- The research assistants were recruited from people with public health background and given adequate training. The content of the training included the purpose and objectives of the study, data collection techniques and tools to be used, translation of the questionnaire into the various local dialects, actual data collection and ethical issues or considerations.
- The principal Investigator was part of the team during the interviews to ensure that the relevant information was collected.
- Questionnaires returned were checked for mistakes and completeness. Errors and omissions detected were discussed with the respective assistants and asked to go back and make the necessary corrections.

3.9.1. Training of research assistants

Prior to the start of field work, two research assistants were recruited and taken through three days of training primarily to equip them with the required skills needed to assist in the study. The training was done by the principal investigator under the guidance of the

academic supervisor who has enormous experience in the conduct of research. The training was to help them to clarify their tasks including a discussion of the purpose of the study, ethical issues and administration of questionnaires.

3.10. Data analysis

Data collected was cleaned, coded and entered into Microsoft Excel. The data was validated by checking for the accuracy of every response entered for each respondent and exported to STATA (statistical analysis software) Version 14. Continuous variables were presented as Mean ±SD, minimum and maximum. Categorical variables were presented as percentages with 95% confidence intervals (CI). Pearson's chi-square test was used to establish the relationship between the demographic characteristics of respondents and factors that may influence the use of modern contraceptives. Variables found to be statistically significant was entered into multivariate multiple logistic regression. Statistical significance was accepted at 95% confidence interval ($p \leq 0.05$).

3.10.1. Variables

3.10.1.1. Outcome variable

The dependent variable of the study is modern contraceptive use.

3.10.1.2. Independent variables

1. Socio-demographic characteristics (Age, marital status, educational level, income, number of children and religion)
2. Knowledge and awareness
3. Attitude
4. Availability

5. Cultural beliefs

6. Fear of side effect

3.11. Ethical Consideration

Ethical clearance to conduct the study was obtained from the Ghana Health Service Ethical Review Committee (Protocol ID No. GHS-ERC: 43/02/2017). Informed written consent was sought from all the study participants. Potential study participants were made to understand that participation in the study was entirely voluntary. Their decision not to participate in the study, failure to answer any question or termination of the interview was duly accepted.

3.11.1. Access and approval of study area

The Ashaiman Municipal Health Directorate as well as the leadership of the market were contacted and notified of the intention to conduct the study. Subsequently, an introductory letter was obtained from the Head of Department, Population, Family, and Reproductive Health, School of Public Health, College of Health Sciences, University of Ghana and sent to the Municipal Health Directorate and also to the leadership of the market. A copy of the approval letter from the Ghana Health Service Ethical Review Committee was also sent to these authorities.

3.11.2. Privacy and confidentiality

The interview was conducted with individual respondents so as to guarantee their privacy. Participants' names were not mentioned in the report of the study and information gathered on participants was kept strictly confidential between the researcher and the study participants.

3.11.4. Risk and benefits

Study respondents lost between 15 to 20 minutes of their time in answering the questionnaires. Apart from that, there was no risk or cost associated with participating in the study. There were no direct benefits associated with taking part in the study. However, it is expected that the results of the study would contribute towards policy decisions making in order to improve reproductive health services in the Ashaiman Municipal Area.

3.11.5. Voluntary withdrawal

Participants were at liberty to withdraw from the study at any point in time and this was not expected to create any problem between the researcher and the respondent. Data collected on any participant who withdrew from the study at any stage was deleted. However, each participant was encouraged to fully participate in the study to ensure that the results was a true reflection of modern family planning use in the study area.

3.11.6. Consenting process

Each respondent in the study was approached individually for the purposes of explaining the objectives of the study to them before they gave their consent to participate in the study. In addition, respondents were made to sign or thumbprint a written consent form after a detailed explanation to them before they participated in the study.

3.11.7. Data storage and usage

The data collected was stored with passwords and in safely locked boxes and used strictly for the purpose of research. Anonymity was ensured in dissemination of findings from this study since participants were not to be identified by their names.

3.11.8. Declaration of conflict of interest

The researcher as the principal investigator declared no conflict of interest in this study.

3.12. Summary

Professionalism and skills were employed during data collection. Data collectors for the study were trained to equip them with the necessary knowledge and skills needed for the collection of data. The next chapter presents and discusses the results of the study. It focuses on the socio-demographic characteristics of respondents, awareness and knowledge of contraceptives, and modern contraceptive use.

CHAPTER FOUR

RESULTS

4.1. Introduction

This chapter presents the results of the study. It focuses on the socio-demographic characteristics of respondents, and awareness and knowledge about modern contraceptives. The chapter particularly looks at the socio-demographic factors associated with modern contraceptive use and other factors that influence modern contraceptive use among market women.

4.2. Socio-demographic characteristics of the respondents

Table 4.1 presents the socio-demographic characteristics of the respondents. A total of 290 market women from the Ashaiman market were recruited for the study, with a response rate of 100%. The average age of the respondents was 29 years (±5.96), and they were mostly aged between 28-32 years (31.4%). A high proportion of the respondents were married (73.5%) and Christians (70%). The majority of the respondents are from the Akan ethnic group (38.3%) and had attained a Junior High School education (39.3%). 37.9% of the respondents sold food stuffs and 37% of them earn an average of GH₵651.00 and above per month. More than half of the respondents (53.1%) had 1-3 children while approximately 46% of them had 4-6 children.

Table 4.1: Socio-demographic characteristics of the respondents (n=290)

Characteristics	Frequency	Percent
Age in years		
18-22	49	16.9
23-27	79	27.2
28-32	91	31.4
33-37	40	13.8
38 and above	31	10.7
Marital status		
Single	77	26.5
Married	213	73.5
Educational level		
No education	30	10.3
Primary	38	13.1
JHS	114	39.3
SHS	65	22.4
Tertiary	42	14.8
Religion		
Christianity	203	70.0
Islam	87	30.0
Ethnicity		
Ga	59	20.3
Akan	111	38.3
Dangme	48	16.6
Ewe	38	13.1
Other*	34	11.7
Goods sold		
Food stuffs	110	37.9
Provision	46	15.9
Drinks	55	19.0
Clothing	79	27.2
Average income /GhC**		
50-200	2	0.7
201-350	22	7.6
351-500	101	34.8
501-650	58	20.0
Above 650	107	36.9
Number of children		
1-3	154	53.1
4-6	133	45.9
7-9	3	1.0

*other ethnic groups in Ghana; **GhC=Ghana cedis

4.3. Awareness and knowledge about contraceptives

Table 4.2 provides information on respondents' awareness and knowledge about modern contraceptives. There was universal (100%) awareness of modern contraceptives among the

respondents and approximately 99% of them knew of at least one modern contraceptive method. Among the modern contraceptives identified were Pills (100 %), Injectable (99.7%), male condom (100 %), female condom (94.1%), IUD (85.7%) and Implant (42 %). Respondents' main sources of information on modern contraceptives were the radio (99.7%), television (96.9%), the hospital/clinic (93.1%), and their family and friends (79 %).

Table 4.2: Awareness and knowledge about contraceptives (n=290)

Statement	Frequency	Percent
Heard about modern contraceptives		
Yes	290	100.0
Source of information*		
Radio	289	99.7
Television	281	96.9
Hospital/clinic	270	93.1
Friends	229	79.0
Posters/banners	67	23.1
Newspaper/magazines	96	33.1
Know any modern contraceptive method		
Yes	286	98.6
No	4	1.4
Identified modern contraceptive method* (*n*=284)		
Female sterilization	105	36.7
Male sterilization	85	29.7
Pills	286	100.0
Injectable	285	99.7
Male condom	286	100.0
Female condom	269	94.1
Diaphragm	106	38.1
IUD	245	85.7
Implants	120	42.0
Foam/Jelly	86	30.1

*multiple responses allowed

4.4. Availability and use of modern contraceptives among respondents

Table 4.3 presents data on the availability and use of modern contraceptives among 290 respondents. About 37% of the respondents were currently using modern contraceptives, and the male condom (74.8%), Injectable (73.8%), Pills (48.2%), female condom (35.5%)

and Implants (32.7%) were the commonly used contraceptives among them (see Figure 3). A high proportion of the respondents (93.5%) who used contraceptives indicated they could access contraceptives in their area of residence and was mostly from the pharmacy shop (96 %). Most of them said accessing modern contraceptives was easy (81.3%).

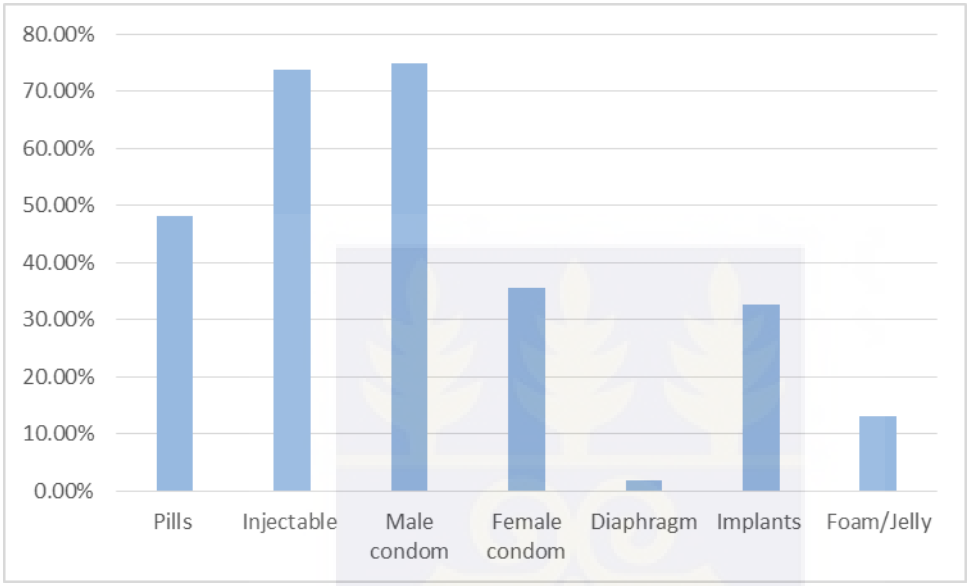

Figure 3: Modern contraceptives currently used by respondents

Table 4.3: Availability and use of modern contraceptives among respondents

Statement	Frequency	Percent
Use of modern contraceptive (*n*=290)		
Yes	107	36.9
No	183	63.1
Access to contraceptives (*n*=107)		
Yes	100	93.5
No	7	6.5
Place to get modern contraceptives (*n*=107)		
Hospital	74	74.0
Pharmacy	96	96.0
Chemical shop	70	70.0
Process of getting contraceptive (*n*=107)		
Difficult	21	18.7
Easy	87	81.3

4.5. Attitude and perception towards contraceptives

Table 4.4 shows the attitude and perception of respondents toward contraceptives. Most of the respondents thought using modern contraceptives was bad (61%) and 39% indicated using modern contraceptive was good. Tiredness, vomiting, dizziness and premature menopause (42.8%), excessive bleeding and menstrual problems (27.2%), and delayed pregnancy after using contraceptives (18.6%) were the common perceptions held about contraceptives use. These contributed to the respondents' perception that contraceptive use was bad. However, most of the respondents indicated that the use of contraceptives could positively maintain peace at home (98.3%), prevent pregnancy (97.9%), and gives time to take good care of their children (96.6%). More than half of the respondents (53.1%) indicated they would recommend the use of modern contraceptives to a friend.

Table 4.4: Attitude and perception towards contraceptives (n=290)

Statements	Frequency	Percent
Thought about the use of modern contraceptives		
Good	113	39.0
Bad	177	61.0
Perceptions about contraceptive use*		
Weight gain and body itching	53	18.3
Easy tiredness, vomiting, dizziness and premature menopause	124	42.8
One can get cancer and tumor	6	2.1
Delayed pregnancy after using contraceptives	54	18.6
Excess bleeding and menstrual problems	79	27.2
Positive effects of the use of modern contraceptives*		
Makes a woman healthy	97	33.5
Maintain peace at home	285	98.3
Gives time to take good care of children	280	96.6
Prevent pregnancy	284	97.9
Recommend use of modern contraceptives to a friend		
Yes	154	53.1
No	57	19.7
Not sure	79	27.2

*multiple responses given

4.6. Socio-demographic factors associated with the use of modern contraceptives among respondents

A bivariate analysis was conducted to examine the association between various socio-demographic variables and the use of modern contraceptives among the market women at the Ashaiman market. The results are shown in Table 4.5. The results revealed that there was no relationship between any socio-demographic factors and the use of modern contraceptive among the market women.

Table 4.5: Socio-demographic factors associated with the use of modern contraceptive

Factors	Contraceptive use, n (%)		Chi-square
	Yes	No	*p*-value
Age			
18 -22	18(36.7)	31(63.3)	
23 -27	33(41.8)	46(58.2)	
28 -32	31(34.1)	60(65.9)	0.471
33 -37	11(27.5)	29(72.5)	
38 – 49	14(45.2)	17(54.8)	
Marital status			
Single	27(35.1)	50(64.9)	0.698
Married	80(37.6)	133(62.4)	
Educational level			
No education	14(46.7)	16(53.3)	
Primary	13(34.2)	25(65.8)	
JHS	37(32.5)	77(67.5)	0.267
SHS	22(33.9)	43(66.2)	
Tertiary	21(48.8)	22(51.2)	
Religion			
Christianity	78(38.4)	125(61.6)	0.410
Islam	29(33.3)	58(66.7)	
Ethnicity			
Ga	24(40.9)	35(59.3)	
Akans	43(38.7)	68(61.3)	
Adamgbe	18(37.5)	30(62.5)	0.298
Ewe	8(21.0)	30(79.0)	
Others	14(41.2)	20(58.8)	
Average income /GH₵			
50-200	0(0.0)	2(100.0)	
201-350	9(40.9)	13(59.1)	
351-500	38(37.6)	63(62.4)	0.776
501-650	23(39.7)	35(60.3)	
Above 650	37(34.6)	70(65.4)	
Number of children			
1-3	62(40.3)	92(59.7)	
4-6	44(33.1)	89(66.9)	0.450
7-9	1(33.3)	2(66.7)	

4.7. Other factors associated with the use of contraceptive among the market women

The study further investigated associations between other factors and use of modern contraceptives among the market women using bivariate analysis. The results are shown in table 4.6. The thoughts of the respondents about the use of modern contraceptive was found to associated with the use of modern contraceptive include fear of side effects, cost of service, time constraint, distance to clinic area, availability of service, partner/husband decision on contraceptive use, dissatisfaction, extent of patient-provider communication, cultural beliefs and recommendation by friends. A significant proportion (68.4%) of women who thought using modern contraceptive was bad were not using modern contraceptive ($p<0.020$). The fear of the side effects of modern contraceptive ($p<0.021$) and the cost of the service ($p<0.030$) were also found to be associated with use of modern contraceptive among the market women. Majority of the women (65.6%) who feared the side effects of modern contraceptives were not using modern contraceptives while most of the women (54%) who did not fear the side effects were using modern contraceptive. Most of the women who held that the cost of the service was a barrier (54.6%) did not use contraceptives compared to 45.4% of them who were using contraceptives. Furthermore, majority of the market women who indicated that the use of contraceptives was a husband/partner's decision (67.9%) were not using contraceptives compared to 32.1% of them who used contraceptives whereas most of the women who indicated the use of contraceptives was not a husband/partner's decision (50.7%) were using contraceptives compared to 47.3% of them who were not using contraceptives ($p<0.004$) (Table 4.6).

Table 4.6: Other factors associated with the use of contraceptive among the market women

Factors	Contraceptive use, n (%)		Chi-square
	Yes	No	*p*-value
Thoughts about the use of modern contraceptives			
Good	51(45.1)	62(54.9)	0.020*
Bad	56(31.6)	121(68.4)	
Fear of side effects			
Yes	87(34.4)	166(65.6)	0.021*
No	20(54.0)	17(46.0)	
Cost of service is high			
Yes	45(45.4)	54(54.6)	0.030*
No	62(32.5)	129(67.5)	
Time constraint			
Yes	27(37.5)	45(62.5)	0.903
No	80(36.7)	138(63.3)	
Distant to clinic is far			
Yes	7(33.3)	14(66.7)	0.725
No	100(37.2)	169(62.8)	
Non availability of service			
Yes	38(41.8)	53(58.2)	0.246
No	69(34.7)	130(65.3)	
Husband/partner's decide contraceptive use			
Yes	69(32.1)	146(67.9)	0.004*
No	38(50.7)	37(47.3)	
Dissatisfaction with service			
Yes	81(36.3)	142(63.7)	0.712
No	26(38.8)	41(61.2)	
Lack of patient-provider communication			
Yes	71(35.6)	128(64.3)	0.525
No	36(39.6)	55(60.4)	
Cultural beliefs support use of modern contraceptives			
Yes	91(36.2)	160(63.8)	0.566
No	16(41.0)	23(59.0)	
Cultural beliefs allow women make decision to use modern contraceptives			
Yes	99(36.5)	172(63.5)	0.626
No	8(42.1)	11(57.9)	
Recommend use of modern contraceptives to a friend			
Yes	59(38.3)	95(61.7)	
No	18(31.6)	39(68.4)	0.649
Not sure	50(38.0)	49(62.0)	

*p<0.05

4.8. Logistic regression of the factors associated with contraceptive use among respondents

A simple logistic regression analysis was performed on the variables that were found to be associated with modern contraceptives use in the bivariate analysis, to further investigate the strength of these associations. The results are shown in table 4.7. Market women who thought the use of modern contraceptives was bad were at reduced odds of using any modern contraceptive compared to those who thought the use of modern contraceptives was good (OR=0.56; 95% CI=0.35-0.92). When compared to women who did not fear the side effects of the use of modern contraceptive, the odds of modern contraceptive use among women who feared the side effects of using modern contraceptive was low (OR=0.44, 95% CI=0.22-0.89). Furthermore, there was a reduced odds of modern contraceptive use among market women who indicated the use of contraceptives was a husband/partner's decision compared to women who indicated the use of contraceptives was not a husband/partner's decision (OR=0.46; 95% CI=0.27-0.78). However, women who held that the cost of the service was a barrier were more likely to use modern contraceptives compared to women who indicated that the cost of the service was not barrier to modern contraceptive use (OR=1.73; 95% CI=1.05-2.85).

In a multiple regression adjusting for all significant variables, thoughts about the use of modern contraceptives (OR=0.39; 95% CI=0.21-0.75) and husband/partner's decision on the use contraceptive (OR=0.34; 95% CI=0.18-0.63) independently predicted the use of modern contraceptives among market women at the Ashaiman market.

Table 4. 7: Logistic regression of the factors associated with contraceptive use among respondents

Factors	Crude OR(95% CI)	*P*-value	Adjusted OR(95% CI)**	*P*-value
Thoughts about the use of modern contraceptives				
Good	*Ref*		*Ref*	
Bad	0.56(0.35-0.92)	0.021*	0.39(0.21-0.75)	0.005*
Fear of side effects				
No	*Ref*		*Ref*	
Yes	0.44(022-0.89)	0.023*	0.56(0.27-1.17)	0.125
Cost of service				
No	*Ref*		*Ref*	
Yes	1.73(1.05-2.85)	0.030*	1.04(0.57-1.92)	0.884
Husband/partner's decision				
No	*Ref*		*Ref*	
Yes	0.46(0.27-0.78)	0.005*	0.34(0.18-0.63)	0.001*

*p<0.05
OR=Odd Ratio
CI=Confidence Interval
**adjusted for thought about contraceptive use, fear of side effects, cost of service & husband/partner's decision
Ref=reference category

4.9. Summary

This chapter presented the results of this study. The study found high level of awareness about modern contraceptives among market women in the Ashaiman Municipality, but their contraceptives use was low. The study identified factors such as thought that using modern contraceptives was bad, fear of the side effects, the cost of the service and women whose husband/partner make decision about contraceptive use to be associated with use of modern contraceptives. These findings are discussed in the next chapter.

CHAPTER FIVE

DISCUSSION

5.1. Introduction

This chapter discusses the results presented in the previous chapter. The discussion comprises a summary of the findings, and comparison of the findings from the study with previous studies done elsewhere. The chapter also deals with the implications of the finding with respect to policy and practice, as well as the strengths and limitations of the study.

5.2. Summary of Findings

The purpose of this study was to assess the determinants of modern contraceptive use among market women in the Ashaiman municipality of the Greater Accra Region. Findings suggested that there was a universal awareness of modern contraceptives among the respondents with radio (99.7%), television (96.9%) and hospitals/clinic (93.1%) as their main sources of information.

Findings also showed that all the respondents (100%) reported that they knew at least one modern contraceptive method. The commonly used contraceptives were male condoms, pills and injectable. About 37% of the respondents were currently using modern contraceptives with the male condom (74.8%) and Injectable (73.8%) being the commonly used modern contraceptive methods. Among those who used modern contraceptives, 81.3% said accessing modern contraceptives was easier whiles 18.7% indicated otherwise. Most respondents who used modern contraceptives indicated they could access it in their area of residence mostly from the pharmacy shop (96 %).

Majority of the respondents indicated that the use of modern contraceptives could positively maintain peace at home (98.3%), prevent pregnancy (97.9%), and give time to take good

care of children (96.6%), 53.1% also indicated they would recommend the use of modern contraceptives to a friend.

Furthermore, most of the respondents thought using modern contraceptives was bad (61.0%), but about 37% of them indicated using modern contraceptive was good. Tiredness, vomiting, dizziness premature menopause, excess bleeding and menstrual problems and delayed pregnancy after using modern contraceptives were the common side effects respondents associated with contraceptives use. In addition, use of modern contraceptives in the study was significantly associated with four main factors. Women who thought using modern contraceptives was bad were not using it, fear of the side effects, the cost of the service and women whose husband/partner made decisions about contraceptive use were factors associated with non-use of modern contraceptives.

5.3. Consistency with previous research

A number of the findings from this study are similar to findings from previous studies. For instance, there was a universal (100%) awareness of modern contraceptives among the respondents and approximately 99% of them knew of at least one modern contraceptive. The common types of contraceptives mentioned were male condoms (100%), pills 100% and injectable 99.7%. This is consistent with a study by Eliason and Aikins (2014) who found in Nkwanta district of Ghana that a little over 94% of women in their study knew at least a method of modern contraceptive, with the male condom and injectable being the most commonly known modern methods of family planning, followed by the pills. The results of this study is also in line with what is reported in the 2014 Ghana Demographic and Health Survey, where knowledge of at least one method is nearly universal in Ghana, with 99% of women and men having this knowledge on modern contraceptive, regardless of their marital status. The result is also consistent with a study by Awusabo-Asare et al.

(2006) which reported that about 90% of women between the ages of 15and 59 years have knowledge of at least one modern contraceptive method.

The finding that women heard about contraception though the radio (99.7%), television and hospitals/clinic as their main source of information, is consistent with the result of the study by Sebastian, Eliason and Aikins (2014) were health workers were the main source of family planning information in the district for women, followed by the radio. Newspaper and banners were sources that contributed the least to family planning information which is also consistent with the findings of this study.

The results in this study also showed that educational status, ethnicity, age and religion had no significant association with modern contraceptive use among women in Ashaiman market. This finding is in discord with the result of a study by Adanu (2009) where it was found that educational status is the most significant predictor of a woman currently using contraception in Accra. Educational status was also a significant predictor of a woman having a history of past contraceptive use and this finding is in agreement with other studies that have highlighted the importance of female education in promoting the use of family planning methods but this is contrary to what this study found, where educational status had no significant association with modern contraceptive use in the Ashaiman market of the Greater Accra region.

5.4. Explanation of findings and implications

It is often believed that knowledge on contraceptives would translate into use. In this study, 100% of the respondents have heard about contraceptives and 99% of them correctly indicated that contraception is any method or procedure used to prevent pregnancy. The male condom (100%), pills (100%) and injectable (99.7%) were the most widely known methods. The high level of knowledge on contraceptives could be attributed to the successful dissemination of family planning messages, mainly by radio and television (GSS,

2014). Knowledge of condom is not surprising in the wake of its promotion as a dual protection method against pregnancy and HIV. Ongoing radio and television campaigns messages such as 'it's your life, it's your choice' often emphasize these methods. However low contraceptive use was reported among study participants who were sexually active: more than half of the respondents (63.1%) indicated that they were not using any contraceptive. This finding reechoes the fact that awareness and knowledge of contraceptive methods do not mean they would be used. This is indeed one of the conclusions Eliason and Aikins (2014) drew in their study among women of reproductive age in the Nkwanta district of Ghana.

About 37% of the respondents were currently using modern contraceptives, and the male condom was the most known method of modern contraception among respondents followed by the injectable, pills and implants. The male condoms are highly effective against the most dangerous of sexually transmitted infections, HIV, gonorrhea, chlamydia and trichomoniasis and prevention of unintended pregnancy. A lot of the common methods reported were however short-acting methods. This could be because these methods are easily accessible, affordable, and easy to use by all groups. In a qualitative study assessing knowledge and perceptions regarding long-acting and permanent contraceptive methods in urban Ethiopia, women preferred methods that did not require any procedure (Tibaijuka et al., 2017). These findings suggest that addressing structural barriers hindering access to contraceptive services may increase uptake of long-acting reversible contraceptive methods among market women at Ashaiman Municipal Area. However, an alternative or complementary approach may be to incorporate preferred characteristics into newer or existing long-acting reversible contraceptive methods. Some existing methods such as contraceptive patches and vaginal rings provide a degree of long-term protection and are relatively client-controlled.

The findings of this study seem to suggest that knowledge of modern family planning methods is very high among market women and often believed that knowledge would translate into use but this has not been the case for this study. While awareness was universal, prevalence rate was low (37%) among market women in the Ashaiman Municipal Area. It is possible that factors such as fear of side effects, and cost of service and husband/partner's decision, which were significantly associated with modern contraceptive use, contributed to the low prevalence. There is the need to institute informational and educational programmes to address real and perceived side effects, as well as provider-level training, particularly at hospitals and clinics, to ensure that women know what to expect when using modern contraceptive methods. Most of the women who held that the cost of the service was a barrier (54.6%) did not use contraceptive compared to 45.4% who were using contraceptives. The rationale for charging fees for family planning services in Ghana is to improve quality of care and ensure availability of services by lessening dependence on donors. This has rather become a barrier to some women who cannot afford family planning services due to the cost involved. The main concern is that it will discourage the use of family planning services at a time when many people do not have access to the services they need. There is the need to take a second look at funding family planning commodities and services with the national health insurance scheme. Family planning is a basic human right and essential health service and should be free or low cost and available to everyone.

This study also found that husband/partner's consent to the use of modern family planning methods was very crucial to the success of any family planning intervention. Moreover, evidence from Nigeria revealed that husband opposition was the major reason for non-use of modern contraceptives. It is speculated that some partners who do not approve of family planning use feared that contraceptives would encourage promiscuity in their wives or would undermine their authority as heads of the household. This belief could explain the

finding that women whose husband/partners took part in the decision of the use of modern family planning had significantly lower odds of not using modern contraceptives in this study. There is therefore the need for the Ghana Health Service to actively educate and involve men in family planning campaigns and interventions.

Socio-demographic factors were not found to have a significant association with modern contraceptive use. This is indeed a curious finding given that many studies have reported significant association between some of these variables and modern contraceptive use. Socio demographic factors such as religion and cultural norms have been cited as factors that negatively affect the use of contraception (Adanu et.al, 2009). However, women, contraceptive use was not significantly associated with religious affiliation or ethnicity in this study. This observation is probably due to the fact that the urban and cosmopolitan influence nature of Accra has led women in Ashaiman to be able to make decisions, regarding family planning, which are not strongly influenced by religion or culture.

By and large, the findings of this study are consistent with some of the illustrations discussed in the conceptual framework, which hypothesizes the relationship between the outcome variable (modern contraceptive use) and the independent variables. At the individual level, fear of side effects, cost of service, distance to the clinic, non-availability of family planning service have been reported as a leading determinant in the choice and use of modern contraceptives. Also for many women decision-making concerning fertility control is a deeply personal and sensitive issue, often involving religious and philosophical convictions, and the choice of a modern method is a complex sociological issue (Hindin et al., 2014). In this study, predictive variables such as fear of side effects, cost of service, thoughts about the use of modern contraceptives and husband/partner's decision were all factors that contributed to use of modern contraceptives among market women in the Ashaiman Municipal Area.

5.5. Strengths and Limitations

This study has helped to provide evidence on the determinants of modern contraceptive use among market women in the Ashaiman municipality, which could have important implications for health policy and interventions on sexual and reproductive health. However, the study has certain limitations. The study was a cross-sectional study, and as such, could not establish a causal relationship among study variables. The study findings may also be limited by respondents' recall bias since there was no mechanism to independently verify respondents' self-reported data. Also, the study was conducted among a small sample of market women in Ashaiman district and as such its generalizability is limited. However, these limitations do not affect the reliability of the findings of the study.

5.6. Summary

This chapter discussed the results of this study. The discussion in the chapter suggested that despite the high level of awareness about modern contraceptives among market women in the Ashaiman Municipal Area, actual usage of contraceptives is still low. A number of community level factors were found to be associated with non-use of modern contraceptives. The findings and the discussions in the chapter highlight the need for remedial interventions to improve contraception use among market women in Ashaiman for which specific recommendations are made in the ensuing chapter.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1. Conclusion

This study set out to assess the determinants of modern contraceptive use among market women in the Ashaiman Municipal Area. To achieve this objective, a cross-sectional study was conducted among 290 women. Descriptive, bivariate and logistic regression analysis techniques were used to analyze and present the data. Results suggested that fear of side effects, cost of service, thoughts about the use of modern contraceptives and husband/partner's decision were the most important factors that contributed to non-use of modern contraceptives among market women.

Although this study focused on women, the considerable, sometimes coercive, role that men have in contraceptive decisions is apparent, particularly when sex is accompanied by financial or material reward. This highlights the need to include both sexes in sexual and reproductive health interventions, particularly in relation to condom use. Increasing modern contraceptive method use requires community-wide, multifaceted interventions, which should aim to counter negative perceptions of modern contraceptive methods. Below are specific recommendations.

6.2. Recommendations

Considering the findings of this study, the following recommendations are made to help address the use of modern contraceptives among market women.

- First, fear of side effects was a leading reason for non-use of modern contraception. The Ghana health service should therefore institute information and educational programmes to address real and perceived side effects, as well as provider-level

training, particularly at hospitals and clinics so as to ensure that women know what to expect when using modern contraceptive methods.

- Second, findings from the study suggested that market women who thought the use of modern contraceptives was bad were at reduced odds of using any modern contraceptive compared to those who thought the use of modern contraceptives was good. Educational videos produced by the Ghana Health Service in waiting areas in antenatal, postnatal, child welfare and other wards and market places where women often spend many hours, could provide health education. Also, as majority of the study population go to health facilities to access family planning methods, the Family and Public Health Divisions of the Ghana Health Service should ensure that health facilities have adequate staff strength and expertise to provide such services. Health care providers should also make themselves accessible and provide satisfactory care to their clients. Methods that do not require specific clinical expertise should continue being made available in non-health institutions such as restaurants, Post Office, Shopping Malls, and tertiary institutions to increase access.
- Third, radio was found to be an essential source of family planning information. As such programme implementers at the family and public health divisions of the Ghana Health Service should continue its use for dissemination of family planning messages.
- Fourth, husband/partner's decision was a factor that contributed to non-use of modern contraceptives among market women. To address the perceptions of promiscuity associated with family planning use, programme implementers at the family and public health division of the Ghana Health Service and healthcare providers at hospitals and clinics at the Ghana health service should devise and implement evidence-based educational messages and supplement them with role

models to disabuse the minds of community members, especially men. In this regard, male involvement in family planning activities should be actively encouraged by the Ghana health service.

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APPENDICES

APPENDIX 1: C ONSENT FORM

Participant's Consent Form

I have read the foregoing information/ the foregoing information has been read to me or translated to me in a language that I understand and I have fully understood it. I consent voluntarily to participate in this study.

(Name and signature of a witness should be provided in a case where the participant cannot speak or read English)

Signature/thumbprint: _____

Name of witness: _____

Signature/thumbprint of witness: _____

APPENDIX 2: QUESTIONNAIRE

QUESTIONNAIRE

UNIVERSITY OF GHANA, LEGON

SCHOOL OF PUBLIC HEALTH

TOPIC: DETERMINANTS OF MODERN CONTRACEPTIVE USE AMONG WOMEN OF THE ASHAIMAN MARKET IN THE GREATER ACCRA REGION, GHANA

I am **AGNES ASIEDU,** a student of the School of Public Health, University of Ghana, Legon**.** I am conducting a study on determination of modern contraceptives use among women of the Ashaiman market in the Greater Accra Region, Ghana. All the information obtained is strictly for academic purposes and will be highly treated with the greatest level of confidentiality.
Thank you.

Participants consent: Yes[ ] No[ ], If No, end of interview

Questions	CODE	Questions	Code
Questionnaire ID	QID	Interview code	ICODE
Question number	QN		
Date	DATE		

Q NO.	QUESTIONS	Coding categories	Skip to	CODES
Section 1: Demographic characteristics of respondents				
1	Age of respondents	18-28…… ☐ 29-39……..... ☐ 40-49…… ☐ 49-59…… ☐ Above 60yrs…… ☐		AGE
2	Educational level of respondents	No formal education…… ☐ Primary……... ☐ JSS…… ☐ Secondary……..... ☐ Vocational…… ☐ Tertiary…… ☐		EDU_RESPONDENTS
3	Educational level of respondents	No formal education…… ☐ Primary……..... ☐ JSS…… ☐ Secondary……..... ☐ Vocational…… ☐ Tertiary…… ☐		EDU_SPOUSE
4	Marital status	Single…….. ☐ Married…… ☐ Divorced…… ☐ Widowed…….. ☐ Separated…… ☐		MARITAL_STATUS

5	Religion	Christianity……☐ Islam……..☐ Traditionalist……..☐ Others(specify)……999		RELIGION
6	What is the average income of your family per month?	GH ₵ 50 -200……☐ GH ₵ 201-350……☐ GH ₵ 351- 500……☐ GH ₵501-650……☐ GH ₵ 650 above……☐		MONTLY_INCOME
7	Number of children	None……☐ 1-3 ……☐ 4-6……..☐ 7-9……..☐ More than 9……..☐		NUMBER_CHILDREN

	SECTION 2: KNOWLEDGE AND AWARENESS OF CONTRACEPTIVES			
8	Have you heard about modern contraceptives before?	Yes…….....☐ No……☐	**If yes**	
9	If yes where did you hear about modern contraceptives? (Tick as applied)?	Radio……☐ Television…….....☐ Hospital/clinic……..☐ Friends……☐ Posters/banners……....☐ Newspaper/magazines……☐ Family/Relatives……..☐		INFROMATIONSOURCE
10	What method of contraceptives do you know about? (Tick as	Female sterilization……☐ Male sterilization……☐		CONTRACEPTIVE_KNO

	applied.	The pills……...☐ Injectable……..... ☐ Male condom……...☐ Male condom……...☐ Diaphragm……...☐ IUD……..☐ Implants……...☐ Foam/Jelly……☐ None……....☐		WLEGE
11	Which of the method of contraceptives do you use? (Tick as applied).	Female sterilization……☐ Male sterilization……☐ The pills……...☐ Injectable……..... ☐ Male condom……...☐ Male condom……...☐ Diaphragm…….. ☐ IUD……..☐ Implants……...☐ Foam/Jelly……☐		CONTRACEPTIVE_USE
12	**Which of the method of contraceptives do you prefer?**	**Female sterilization……☐** **Male sterilization……☐** **The pills……..☐** **Injectable……....☐** **Male condom……..☐** **Male condom……..☐** **Diaphragm……..☐** **IUD……..☐** **Implants……..☐**		
13	**Why do you prefer the method of contraceptive identified in Q12?**	…… …… …… ……		

		……		
	SECTION 3: AVAILABILITY OF CONTRACEPTIVES			
14	Do you get contraceptives in your area to access?	Yes……..... ☐ No……☐	**If yes** **Q13**	
15	If yes where do you get contraceptives?	Hospital…….. ☐ Pharmacy……☐ Chemical shop…… ☐ Maternity home……. ☐ Traditional Birth Assistance...☐		
16	How will you describe the process of getting contraceptives in your area?	Difficult……..☐ Very difficult……..☐ Easy…… ☐		
	SECTION 4: ATTITUDE AND PERCEPTIONTOWARDS CONTRACEPTIVES			
17	What do you think about modern contraceptives	Good…….....☐ Bad……☐ Very good…… ☐		
18	What are some of the negative perceptions you know about the use of modern contraceptives?	…… …… …… …… …… …… ……		NEGATIVE_PERCEPTIONS
19	What are some of the positive effects do you know about the use of modern contraceptives	Makes a woman healthy.☐ Maintain peace at home…….. ☐ Gives time to take good care of children……☐ Others(specify)…… 999		POSITIVE_EFFECTS

20	Would you tell a friend to use modern contraceptive	Yes……..... ☐ No…….. ☐ Not sure……. ☐		
21	**SECTION 5: HEALTH SERVICES**			
22	Are health services on modern contraceptive us readily available in my community?	Yes……..... ……☐ No……☐		
23	The Provision of health outreach services on modern contraceptive will promote use among market women?	Yes……..... ……..☐ No……☐		
24	What do you want family planning service providers to do for you at the clinic?	……. ……. ……. ……. ……. ……		
25	What recommendation do you have to increase modern contraceptive use among women?	……. ……. ……. ……. ……. ……		
SECTION D – BARRIERS TO MODERMN CONTRACEPTIVE USE				
26	What influenced you not to access modern contraceptives services (Tick as applied)?	Fear of side effects…….. ☐ Cost of service……..... ☐ Time constraint……☐ Non availability of service….. ☐ Husband decision……... ☐ Dissatisfaction with service… ☐ Lack of patient-provider communication……... ☐		

	SECTION 5: CULTURAL BELIEFS AND CONTRACEPTIVES USE			
27	Do your cultural beliefs support modern contraceptive use?	Yes……..... ….. ☐ No…….. ☐		
28	Does your cultural beliefs allow women to make decision regarding modern contraceptive use	Yes…….....……☐ No…….☐		
28a	Who else is part of that decision	Husband……☐ Mother in- laws……☐ My own family…….☐		
29	In your own view what do you think can be done to improve the use of modern contraceptives?	…… …… …… …… …… …… …… …….		

END OF INTERVIEW

Thank you