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SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA

FACTORS INFLUENCING MODERN CONTRACEPTIVE USE AMONG WOMEN AT THE MADINA MARKET

BY

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THIS DISSERTATION IS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES, UNIVERSITY OF GHANA, LEGON, IN PARTIAL FULFILMENT OF REQUIREMENTS TOWARDS THE AWARD OF MASTERS' DEGREE IN PUBLIC HEALTH

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DECLARATION

I, Grace Akwa declare that the research with the topic factors influencing contraceptive use among women at the Madina market, is my own original work which was done under supervision as a student of the School of Public Health, University of Ghana and has never been submitted in part or whole, for the award of a degree in any university or institution of higher learning. All references made to other people's work, have been duly acknowledged as a means of complete referencing.

…….. …….....

GRACE AKWA DATE

(10701208)

…….. …….....

DR. COLLINS AHORLU DATE

SUPERVISOR

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DEDICATION

This work is dedicated to God Almighty, my husband Emmanuel and my right hand girls Mawuena, Nana Esi and Baaba.

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My utmost gratitude is to God. There's no way I could have done this without Him.

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My sincere thanks goes to the La Nkwantanang Municipal Assembly, the Market leaders at the Madina Market and the market women who were willing to participate in the study.

Finally I wish to give heartfelt thanks to my husband and my girls for their enormous support and sacrifice.

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ABSTRACT

Background: Globally, in sub Saharan Africa and also in Ghana, contraceptive prevalence rate has been found to be low. Though there have been programmes to promote contraceptive use, detailing the enormous benefits for families and economies there seems to be a need to find more information about the reasons for the low rates. The use of modern contraceptive methods still remains low in sub-Saharan Africa. The fertility rate at the Madina Municipal area is high and this study seeks to identify the factors that influence modern contraceptive use among the women at the Madina Market.

Objectives: The specific objectives of this study were to estimate the contraceptive prevalence rate at the Madina Market, find out what the preferences of the women in modern contraceptive methods were and to determine the factors that influenced their decisions to either use or not to use modern contraceptives.

Methods: A quantitative cross sectional design using structured questionnaire was used by simple random sampling. 270 market women of reproductive age (18-49 years) participated in the study. Descriptive and chi square tests were used to analyze the data.

Results: All the sociodemographic characteristics of the participants were not significantly associated with modern contraceptive use. Fear of side effects ($p<0.001$, 95%CI 1.640), previous bad experiences ($p<0.001$, 95% CI 0.747, 2.243)the perception that contraceptives affect one's health adversely ($p= 0.044$, 95% CI -0.052,-0.02) and ease of access to contraceptives ($p= 0.03$, 95% CI 0.0851,2.518) were however found to have an association with modern contraceptive use. Contraceptive prevalence rate (CPR) was found to be 26.30% at the Madina Market. The most preferred method was the injectable hormone (32.39%), whilst the tubal ligation was the least one (2.81%).

Conclusion: The use of modern contraceptives was found to be improved by the ease of accessibility to the family planning services and products. Therefore, these services and products should be made available at all levels of the health system by taking into account the preferences of the users. However, behavioural change communication should be done to alleviate the negative perceptions about the use of modern contraceptives.

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LIST OF ACRONYMS

CHP COMMUNITY BASED HEALTH PLANNING AND SERVICES

CPR CONTRACEPTIVE PREVALENCE RATE

DHS DEMOGRAPHIC HEALTH SURVEY

GHS GHANA HEALTH SERVICE

GSS GHANA STATISTICAL SERVICE

IUD INTRAUTERINE DEVICE

MDG MILLENIUM DEVELOPMENT GOALS

MOH MINISTRY OF HEALTH

PHC POPULATION AND HOUSING CENSUS

SDG SUSTAINABLE DEVELOPMENT GOALS

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CHAPTER ONE

INTRODUCTION

1.1 Background

Man has always had the power to decide whether or not to have a child, how many children to have and how often to have them. The history of contraceptives dates back to thousands of years BC. People used coitus interruptus and occasional abstinence to prevent unwanted pregnancies (Hartmann, 1995). At about 3000 BC, condoms from materials like fish bladders, linen sheaths and animal bladders were used. Then around 1500 BC, a spermicide impregnated and dried condom of linen sheath was invented. Vulcanized rubber condoms and diaphragms emerged in the late 1930s (Thompson, 2013).

Control of fertility over the ages has depended on social factors and religious beliefs. Before the 20th century, contraception was seen as associated with illicit sex and therefore immorality. It was therefore not very popular (Quarini, 2005). In the 1970s however, the Neo Malthusians saw birth control as a way of improving the lives of the poor by controlling population growth. The Eugenicists however were using birth control means to influence genetic quality whilst the socialists and feminists felt that it was the right of a woman (Hartmann, 1995).

Over the decades, there were various attempts to improve the methods of contraception and the embracing of the concept by women all over the world. Studies and interventions have been implemented to promote its use and increase prevalence (New Zealand F.P.org. (2013). These programmes reiterate the benefits of contraception for any nation such as:

1. Prevention of unwanted pregnancies
2. Reduction of prevalence of unsafe abortion and maternal mortality
3. Improvement of socio economic status

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4. Reduction of infant mortality and low birth weight babies
5. Child spacing
6. Curbing of overpopulation.
7. Prevention of the transmission of sexually transmitted infections.(Peculiar for the barrier method)

   (WHO Fact sheet, 2018).

The global challenge, is the persistent low uptake of contraceptives regardless of its known benefits. It would be thought that the availability of variety of methods will make its use attractive. However, this is not the case in most parts of the world, especially in the developing countries like Ghana.

Use of modern contraceptives has increased slightly globally from 54% in 1990 to 57.4% in 2015. Between 2008 and 2015 contraceptive prevalence rate rose to different degrees regionally. In Africa, it rose from 23.6% to 28.5%.In Asia it rose from 60.2% to 61.8% and in Latin America and the Caribbean it stayed at 66.2%. (WHO FACT SHEET, 2018).

The Ghana Demographic Health Survey stated a contraceptive prevalence rate of 22% in Ghana in 2014 which is below the national target (GDHS, 2014). Various reasons have been found through studies to account for the low uptake of contraceptives and extent of unmet need for contraception. Some of these reasons include:

- Unavailability of a variety of methods to choose from;
- Fear of side effects;
- Unpleasant previous experiences with contraceptives;
- Religious and cultural beliefs;

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- Low quality of service.

A sexually active woman seeking to prevent pregnancy may or may not have all the contraceptive method options depending on where and from whom she gets information and the family planning services and products available to her.

Studies have revealed various factors that influence uptake of modern contraceptives e.g. Cost and availability of services in Nigeria (Egede et al., 2015). Beson (2015) identified knowledge and awareness of modern contraceptives and attitude towards contraceptives as being associated with use of modern contraceptives in Northern Ghana. In Ethiopia, Mohammed et al., (2014) found that couples' discussion and husband's approval significantly influenced contraceptive use.

The UN millennium development goals, specifically MDG5 targeted the provision of universal access to reproductive health by 2015 (Bongaarts, 2014). This goal involves the use of contraceptives by sexually active women of reproductive age.

1.2 Statement of the problem

Maternal mortality is a major issue globally. According to WHO,UNICEF, UNFPA and the World Bank, 287,000 women die each year worldwide from pregnancy related causes. (Rominski, 2014) They also found that maternal mortality ratio is highest in Africa, 500 per 100,000 births. Of these deaths, 47000 are attributable to unsafe abortion, making abortion one of the leading causes of maternal mortality.

In Ghana, maternal mortality due to unsafe abortion constitutes 15% maternal deaths (MOH, 2014). Considering that these abortions are preventable if the women don't have unwanted

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pregnancies, it is important that sexually active women of reproductive age use contraceptives. There is a low prevalence of contraceptive use globally, which is worse in sub Saharan Africa (25%) and in Ghana (30.6%).

Problems with accessing contraceptive products and services has also emerged as one reason for low prevalence of its use (Bongaarts, 2014). Unmet need, which is the proportion of women who want to avoid pregnancy and are not using any contraceptive method is high. According to the WHO, 214 million women worldwide fall into this bracket (WHO fact sheet on family planning, 2017)

Appropriate child spacing is also important in planning families. Both mother and child are healthier and babies are less born with low birth weight when children are not born too close to each other. There are also the socioeconomic gains in family planning. (Envuladu et al., 2012).

Teen births have also become an issue of Public Health concern .Studies have found that adolescents have a higher risk of giving birth to unhealthy babies with low birth weight, than older women. It has also been found that the children have lower academic achievement, than children of older women. (Centers for Disease Control and Prevention, 2012). It is therefore important to prevent unwanted pregnancies in the teens.

Market women form a very vital part of the economy of the nation. Though informal, there's a high level of economic activity that takes place in the market though market women have relatively low educational levels. As women, they also have the gender roles that society places on them. Its important that they have good reproductive health goals and plan their reproductive health and families well. This study will bring out information on their contraceptive practices which can help interventionists in the campaign for Reproductive Health for everyone. The findings could be added to that from the few studies on market women in Ghana.

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1.3 Objectives of the study

1.3.1General objective

To determine the factors influencing modern contraceptives use among women at the Madina market.

1.3.2 Specific objectives

1. To find out the generally preferred modern contraceptive method among women at the Madina market;

2. To determine the prevalence of the use of modern contraceptives at the Madina market;

3. To determine the factors influencing modern contraceptive choice and use among women at the Madina market.

1.4 Justification

Findings from this study may be presented to policy makers and planners of interventions that target vulnerable women groups like Market Women to help them decide their reproductive life goals. Secondly, the results obtained from this survey could be added to the information needed for the planning of the reproductive health agenda for the nation. This way women will not have too many children and families can have better finances to take care of their children in terms of their health, education, nutrition and overall wellbeing. Additionally, conducting the study at a market in the Madina Municipality will help with the control of population growth in the Municipality by the reduction of fertility rate. Overall reproductive health of the populace will also be improved since maternal and child mortality will be reduced. Furthermore, the socioeconomic status of the people will improve with less children to cater for.

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1.5 Rationale for study

In 2016, globally, number of women with unmet need for contraceptives was 222 million. Unmet need is defined as the percentage of women who want to prevent pregnancy but are not using contraceptives. One of the best ways to improve maternal and child health outcomes is to promote family planning(Rutaremwa et al., 2015).

A study conducted involving 5 countries in Asia and Africa showed that even among postpartum women, there was an unmet need (Pasha et al., 2015). In another study in 2018 involving survey data in 77 countries since the year 2000, it was found that approximately half of those who needed contraceptives were not using any (Ewerling et al., 2018). Availability and access to family planning products and services alone may not be sufficient to improve contraceptive prevalence rate (Ackerson & Zielinski, 2017). It is important to conduct studies in various geographical areas, with varying groups of people to be able to find out and gain knowledge, on the vast dimensions of reasons that act as barriers to contraceptive use.

In Kinshasa, Muanda et al., (2016), found that 1 in 5 married women use modern contraceptives and over 25% of them had an unmet need for contraception. This is despite the fact that almost 400 health facilities in Kinshasa report the delivery of family planning services.

Individuals, groups, communities and countries may have different reasons for the use and non-use of contraceptives. A unidirectional approach to an intervention for an increase in contraceptive usage may not be effective. A multipronged approach to improve reproductive health, was found to be effective in Kenya (Amo-Adjei et al., 2017). The approach combines training of health staff involved in delivery of family planning services, an effective supply chain of commodities, stakeholder engagements at the community, regional and national levels and monitoring and evaluation. The outcome was an improvement in contraceptive uptake.

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Conducting a study at the Madina Market will provide another dimension of these reasons. Madina is cosmopolitan in nature and is a combination of people from diverse places. Considering the peculiarity of their status, they represent a combination of women, business people, mixed ethnicities, similar socioeconomic status and different religions.

The results that will be obtained from this study will be helpful as additional information for the plans to promote contraceptive use, among market women in other settings. As a follow up, the study can be replicated at other markets to enrich the information gathered. The women will as a result, have fewer children, who will be healthier with maternal and infant mortality also decreasing. Apart from that, their socioeconomic status will improve, due to less children to take care of. The rapid growth of the population in the municipality will also be reduced.

The information gathered will also be an important input for policies targeted at the reproductive health of vulnerable groups such as market women.

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1.6 Conceptual Framework

Research works done in various study populations all over the world have revealed a number of factors that determine contraceptive prevalence rate (CPR). The conceptual framework (fig. 1) shows the relationship between these factors and contraceptive use. There are demographic factors such as age, health system factors such as quality of services, cultural and religious factors and also predisposing factors such as fear of side effects. The demographic factors are perculiar characteristics of the woman and may have impacts on her everyday life including her decision to use contraceptives. Predisposing factors such as knowledge of modern methods and source of information may also inform the woman's preference for a particular contraceptive method. Fear of side effects however could make her hesitant. Community factors also play a big role in the decisions that a woman may take. Cultural norms and religious beliefs are deep rooted and accepted values of a given community which may influence behaviour. Thus if the community frowns at family planning, it will be quite difficult for the woman to use contraceptives. The reverse is also true. Provider factors such as access to services or the quality of service will also affect contraceptive use because the woman may be willing to use a family planning method but without access, she will end up not using it. All the above variables mayplay a role in the decision of a woman in her reproductive age, either to use modern contraceptives or not. Their interactions determine the outcome which is contraceptive use.

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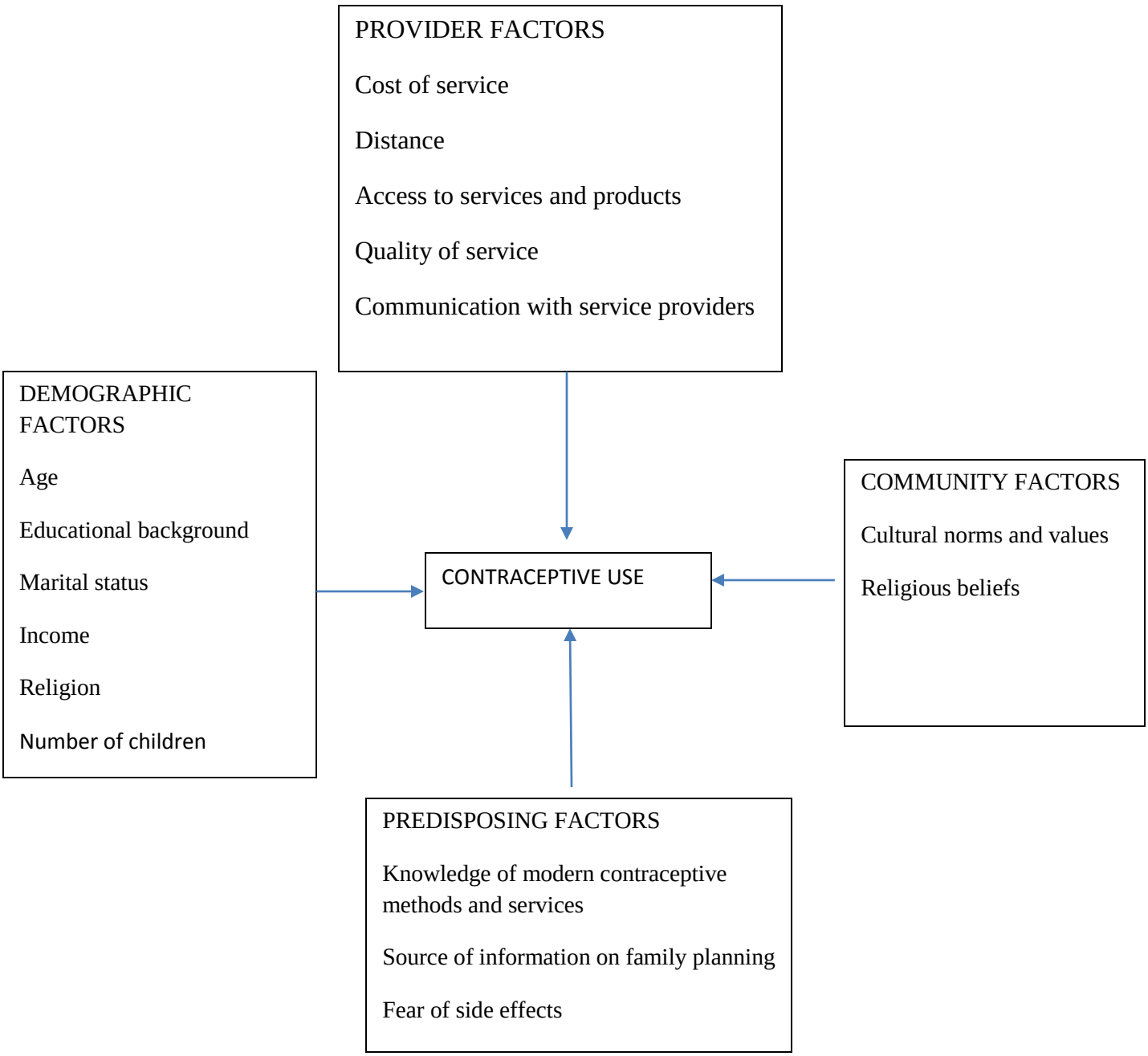

Figure 1: Conceptual framework for the study of factors influencing contraceptive use (*Modified form of the Anderson and Newman Model of Health care utilization*).

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CHAPTER TWO

LITERATURE REVIEW

2.1 Types of modern contraceptives

The modern methods of contraceptives can be grouped into five.

1. The long acting reversible methods.
2. The barrier methods.
3. The short acting methods
4. Emergency contraceptives
5. Sterilization.

Ideally, an appropriate method of birth control should depend on an individual's overall health, age, frequency of sexual activity, number of sexual partners, desire to have children in future and family history of disease.

2.1.2 Long acting reversible contraceptives (LARC)

The two (2) main LARCs are the intrauterine devices (IUDs) and the implants.

Intrauterine Devices (IUDs): are small T shaped devices that are inserted into the uterus of a sexually active woman in her reproductive age solely to prevent pregnancy. IUDs are either hormonal (levonorgestrel) or made of copper. They prevent sperms from reaching and fertilizing the ovaries, thin the uterine lining and stop the foetus from being implanted in the womb. An IUD lasts up to twelve years but can be removed anytime the woman wants to have a baby.

Implants: Implants are rod like, match stick sized, flexible, plastic devices that are implanted usually under the skin of the inner portion of the forearm of the woman. The implant works by releasing the hormone etonogestrel or levonogestrel and can last for five years.

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Hormonal methods:

These are usually short acting. They prevent pregnancy by stopping the ovulation process. Hormones are in various forms such as injectables, pills, patches, and vaginal rings. The injection contains a progestin, depot medroxyprogesterone acetate. It lasts for three months. The progestin only pills (POPs) also interfere with ovulation or sperm function.The combined hormonal pills contain oestrogen and a progestin. This combination may come as a pill, a patch or a vaginal ring.

Barrier methods

This method basically disallows the sperm from entering the uterus. These devices are worn on the penis or in the vagina and include female condoms, male condoms, contraceptive sponges, diaphragms and cervical caps.

Emergency contraceptives

This type of contraception is post coital. It's a method used to prevent pregnancy after having unprotected sexual intercourse or sex without prior contraception. Two contraceptive methods are usually used; the copper intrauterine device (IUD) and the emergency contraceptive pill (ECP). The IUD is inserted into the uterus up to 120 hours after unprotected sex whiles the ECPs are hormonal pills that are taken up to 72 hours after unprotected sex.

Sterilization

This method is surgical and a permanent form of contraception. The mode of prevention is to either stop a man from releasing a sperm or a woman from releasing an egg; vasectomy in men and tubal ligation in women. Vasectomy is the cutting and blocking of the vas deferens and tubal ligation is the cutting a

2.2. Contraceptive Prevalence rate

Contraceptive prevalence rate (CPR) is the percentage of women in their reproductive age (15 to 49 years), who use any method of contraceptive. In 2018, the WHO reported that the global CPR

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was 30.6% (WHO, 2013). The national development agenda in Ghana mentions the promotion of modern contraceptive use for population control (Development Agenda II: 2014-2017 (GSS, 2014).

Ghana had a target for the contraceptive prevalence rate of 50% by 2020, in 2015. (Adjei et al 2015) However as at 2018, contraceptive prevalence rate in a suburb within the Greater Accra region was 21%. The Ghana Demographics and Health Survey (GDHS) reported a rate of 22%. (Beson et al, 2018).

According to Ackerson et al., (2017), use of modern contraceptives and engaging in family planning has been shown to reduce maternal mortality. This is because fertility rates will decrease with increase in modern contraceptive use and family planning. One intervention that has been demonstrated to decrease maternal mortality is the use of family planning and modern contraception, yet rates of use remain low in sub-Saharan African countries, which have the highest rates of maternal death. In sub Saharan Africa, contraceptive prevalence rate is the lowest in the world, though maternal mortality rates are highest (Ackerson et al, 2017).

It can almost be concluded that programmes on modern contraceptive use and its benefits may need reevaluation, since it is estimated that, globally, about 222 million women have an unmet need for contraception (Patel et al., 2016). The 3rd goal of the sustainable development goals of the United Nations aims at universal access to reproductive health services by 2030 and this includes family planning (United Nations General assembly, 2015;(Apanga & Adam, 2015).

However, if targets of CPR must be reached across the world, then the perculiar reasons for the use or non-use of modern contraceptives in each geographical area where the CPR is low, must be studied and understood. Availability and access to products and services alone may not solve the problem for every location, population or group of people (Ackerson et al., 2017).

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2.3 Factors influencing contraceptive use

The factors that influence contraceptive use can be grouped into three, according to the Interaction Model of Client Health Behaviour (IMCHB) by Cox (1982). These are: Client singularity, Client Professional interaction and Health outcomes (Ackerson et al., 2017).

Client singularity like demographic factors are variables such as age, educational level, presence or absence of a partner, family, community, culture, religion, previous health care experiences including family planning services, income, access to care, beliefs, knowledge and personality.

Client Professional interaction factors include information and professional competencies. These factors strongly influence the seeking or avoiding of family planning services.

Thirdly, health outcomes refers to the actual use of the health services including routine family planning services and the contraceptive products. It also includes satisfaction with care.

In one part of Nigeria, educational level was found to be associated with contraceptive use (Ejembi et al., 2015). However, among traders in Jos, Nigeria, marital status, religion, education and parity were associated with contraceptive use (Envuladu et al., 2012).

There were variations in the CPR of modern contraceptives in different regions of Nigeria. Overall, CPR was 10.3%. In the south west, it was 26.7% while the North west recorded 2.7% (Johnson, 2017)). Higher education, wealth and urban residence were associated with contraceptive use. There is therefore a possibility that improvement of female literacy and employment will improve contraceptive use.

A study conducted in the Democratic Republic of Congo, found that family members influenced against modern contraceptives method use. Also, lack of knowledge about the types and sources available as well as misinformation were the determinants of contraceptive use in that

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study(Muanda et al., 2016). A different line of reasoning was discovered in Bangladesh when a study found out that sex preference of a child to be born to a family, influenced the use of contraceptives. Couples who already had children of both sexes were ready to use contraceptives. However in a case where a couple desired a particular sex, they were unwilling to use contraceptives. (Kawsar et al., 2009).The idea was to try to conceive the desired sex.

The Southern Kayonza district in Rwanda has the highest fertility rate in the country. In 2015, a study by Farmer et al revealed that difficulty in access to reproductive health services proved to be a significant barrier to the use of modern contraceptives by the women.(Farmer et al., 2015) Factors such as lack of variety of methods or limited choice and stock outs reduced access. Other reasons for the low CPR were the thriving of rumors that the interventionists were injecting them with cancer, in addition to cultural beliefs. They believe that having a large family has historical significance. They also believe that more children serves as a cushion for the event of death of a child or some of the children.

Level of education has also been found in some studies to be associated with contraceptive modern contraceptive use. Apart from that, preference for longer acting methods is more among women in the higher education bracket. In the Ethiopian study, use of long acting methods was associated with level of education. The women with higher education used the longer acting contraceptives.(Melka et al 2015)

A systematic review study in Ghana using secondary data from the 2003, 2008 and 2014 demographic health surveys also revealed that women in formal employment or occupations such as professionals and clerical workers as well as those with higher education were more likely to use modern contraceptives than those in less formal occupations. Following this finding, the Northern part of Ghana recorded prior public education, partner involvement and attitude of

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health workers as the influencing factors for contraceptive use (Abdulai, 2015). This further buttresses the point that the level of education of a woman in her reproductive age largely influences her decision to use or otherwise a modern contraceptive method.In 2018, also in the Northern part of Ghana, Wallace & Adongo found that, approval by men was an influencing factor for contraceptive use at Kassena . In Sunyani in the Brong Ahafo region of Ghana however, effective counselling and spousal communication were associated with contraceptive use (Wuni, Turpin, & Dassah, 2017). The factors that influenced contraceptive use at the Ashaiman market in Ghana were fear of side effects, cost and the idea that it was generally bad to use contraceptives (Asiedu, 2017).

2.4 Preference

Family planning and contraceptive services are used worldwide in various countries, but the uptake of the various modern methods vary from place to place. Preference for a particular method depends mostly on individual factors and will depend on what suits them.(Glasier & Gebbie, 2016). This can be seen from the findings in a study in Rwanda by Farmer et al (Farmer et al., 2015)where the respondents mention that it is easier to be injected every three months than to take a daily pill. One of the specific examples that the respondents gave was the importance of considering the occupation of the woman. She gave an instance where the woman worked in the fields and preferred the injectable because, she thought an interval of three months before the next hospital visit was preferable to a daily pill, which she believed she could easily forget. On the other hand, when the preferred method is not available or accessible, the woman has to settle for what is available in the circumstance, if she still desires to use contraceptives. In this case, there's a mismatch between the method the woman uses and which she prefers. He et al.(2017) mentioned a mismatch between method used and method preferred. According to the study

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which involved data drawn from women's healthcare experience and preference, family planning research has not effectively dealt with the preferred contraceptive methods of women and whether what they use matches what they prefer.

In the study, they reported that 34% of women preferred methods that were not long acting and 18% rather preferred the long acting methods. In addition, they found that the perception that longer acting contraceptive methods have the capability of delaying conception even after the stoppage of use, influenced its low uptake. They recorded a 36% preference – use mismatch. Majority wanted more effective methods than what they were using. The reasons that were given for the mismatch were cost, lack of perceived actual need and method specific choices.

These findings indicate a need for patient centered contraceptive interventions by various interventionists whose campaigns encourage family planning.

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CHAPTER THREE

METHODOLOGY

3.1. Study Area

The study was conducted at the Madina market, La Nkwantanang-Madina municipal area in the Greater Accra region of Ghana. The municipality covers about 70,887 square kilometres and has a population of 119,926 representing 28% of the region. Females represent 51.5% with 48.5 % being male.

General fertility rate in the municipality is 71.1 live births per 1000 among women between the ages of 15 and 49-(PHC, 2010). Majority (77.1 %) of migrants living in the municipality were born in another region in Ghana while 19.9% were born elsewhere in the Greater Accra Region. For migrants born in another region, those born in Eastern constitute 31.1 percent, followed by Volta with 27.4 percent and Ashanti, 14.1% (PHC, 2010).

3.2. Study Design

The study was conducted in a cross sectional nature. It was a quantitative survey using structured questionnaire to collect data towards achieving the objectives of the study.

3.3. Variables

Independent variables:	**Dependent variable:**
Age	Contraceptive use
Educational level	
Marital status	
Religion	
Ethnicity	

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Number of children

Knowledge of modern contraceptives

Ease of access to modern contraceptives

Preference of modern contraceptive

Barriers to contraceptive use

Modern contraceptive method currently being used.

3.3 Study Population

The study population was market women of reproductive age (18 to 49 years) at the Madina Market in Madina.

3.4. Sampling

Simple random sampling technique was used in the selection of the respondents. The women were made to randomly select folded paper in a container with 'yes' written on only one of them. The rest had 'no'. Only those who picked yes were included in the study.

Sample size was calculated using the Cochran formula:

$$n = \frac{Z^2 \, P \, (1 - P)}{d^2}$$

Where n = sample size

Z = confidence interval (95%)

d = margin of error (0.5)

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

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Minimum sample size = 264.

Inclusion and exclusion criteria

Inclusion criteria was Market women from 18 to 49 years. Exclusion criteria was women who fell within the age bracket of 18 to 49 years but picked 'no' during the sampling or were not freely willing to participate.

3.5. Data Collection Technique and Tools

Considering the objectives of the study, structured questionnaire comprising of close ended questions were administered to the respondents. The questionnaire were administered with the assistance of three health workers trained to assist in the research. .The PI trained them on the objectives of the study, rationale and interview technique needed for the survey. The research Assistants were also made to understand participants' rights, informed consent and confidentiality. Approval from the participants was sought through informed consent before the research assistants administered the questions to the respondents.

3.6. Quality Control

The Principal Investigator was actively involved in the data collection to ensure that quality data was collected. At the end of each working day, the Principal Investigator checked through all the filled questionnaire for errors to be corrected or clarified.

3.7. Data Processing and Analysis

Collected data was coded and recorded using Microsoft Excel. It was then exported to STATA (statistical analysis software) Version 15. Logistic regression test was used to determine whether there was an association between the variables and the use of modern contraceptives, using a 95% confidence interval.

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3.8. Ethical Considerations

Ethical clearance was obtained from the Ghana Health Service (GHS ERC 045/03/19), and permission was sought from the La Nkwantanang Municipal Assembly. The leaders of the Market were also contacted for an explanation of the study objectives. The market leadership and the participants were assured of confidentiality at all times. Privacy and confidentiality was upheld during the administration of the questionnaire.

3.8.1. Confidentiality

The names of participants were not required. Codes were assigned to each participant. Data from the study was stored without any identification parameters like names.

3.8.2 Possible benefits

The information gathered will help design programmes to promote contraceptive use for population control and better living conditions, for citizens.

3.8.3 Possible risks and discomforts

The risk in this study was minimal. The participants had to spare about fifteen minutes of their time and also share some personal information.

3.9. Pretesting Of Study Tools

The questionnaire was pre-tested at the Kasoa old Market to help standardize the final questionnaire to be used.

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CHAPTER FOUR

RESULTS

4.1. Socio-demographic characteristics of the respondents

Table one shows the socio-demographic characteristics of participants. A total of 270 women at the Madina market were involved in the study. The ages of the women ranged between 18 and 49 years with majority in the age groups of 25 and 29 years (19.26%) and 18 and 24 years (18.52%). Most of the respondents were Christians (72.22%). About a quarter of the women had never had any education (25.19%) and only 4 respondents (1.48%) had had tertiary education. Close to half of the women were Akans (41.85%). About 50% had either a child or two. The women were mostly married (70.37%).

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Table 1: Sociodemographic characteristics of respondents

Characteristic	Frequency (N=270)	Percent (%)
Age category		
18 – 24	50	18.52
25 – 29	52	19.26
30 – 34	45	16.67
35 – 39	43	15.93
40 – 44	45	15.93
45 – 49	35	12.96
Marital status		
Married	190	70.37
Not married	73	27.04
Co habiting	7	2.59
Educational level		
None	68	25.19
Primary	78	28.89
JHS	85	31.48
SHS	35	12.96
Tertiary	4	1.48
Religion		
Christian	195	72.22
Moslem	71	26.30
Traditionalist	4	1.48
Ethnicity		
Akan	113	41.85
Ewe	63	23.33
Ga	27	10.0
Hausa	64	23.70
Other (Dangbe)	3	1.11

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Number of children		
1	72	26.67
2	71	26.30
3	54	20.00
4 or more	73	27.04

4.2 Prevalence

Of the 270 women that participated in this study, 71 (26.30%) were using modern contraceptives for the prevention of pregnancy.

4.3 Preference of modern contraceptive method

Out of the 71 women using contraceptives, majority of them (32%) preferred the injectable method. Tubal ligation registered the lowest number of users (n= 2) representing only 3% (Figure 2) The preferences of the women, matched exactly the types of modern contraceptive they were using, in this study.

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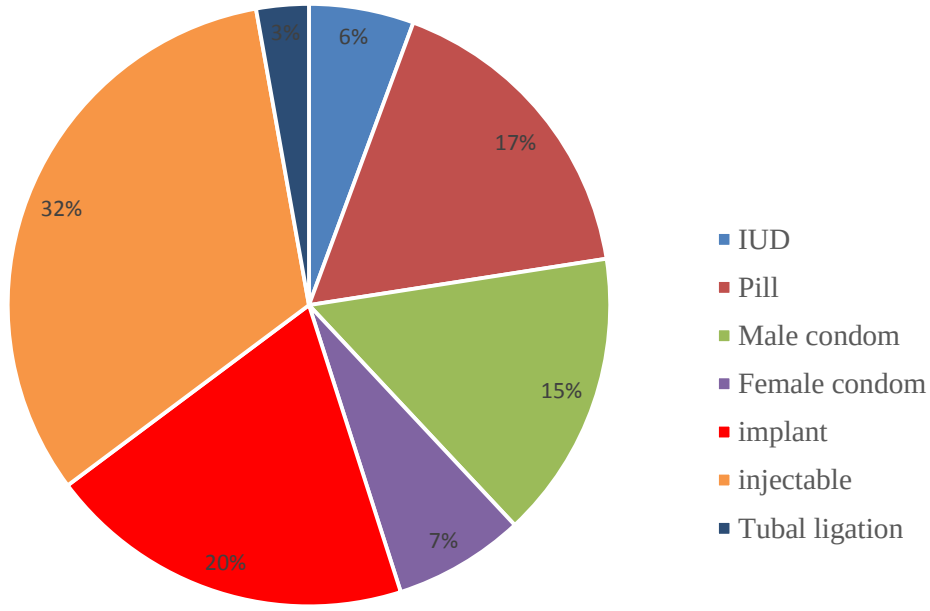

Fig 2: Modern Contraceptive preferences among women at Madina Market

4.4 Reasons for preferences

The reasons given for their preferences included availability (7.04%), proven effectiveness (28.17%) and convenience (38.03%) (Figure 3).

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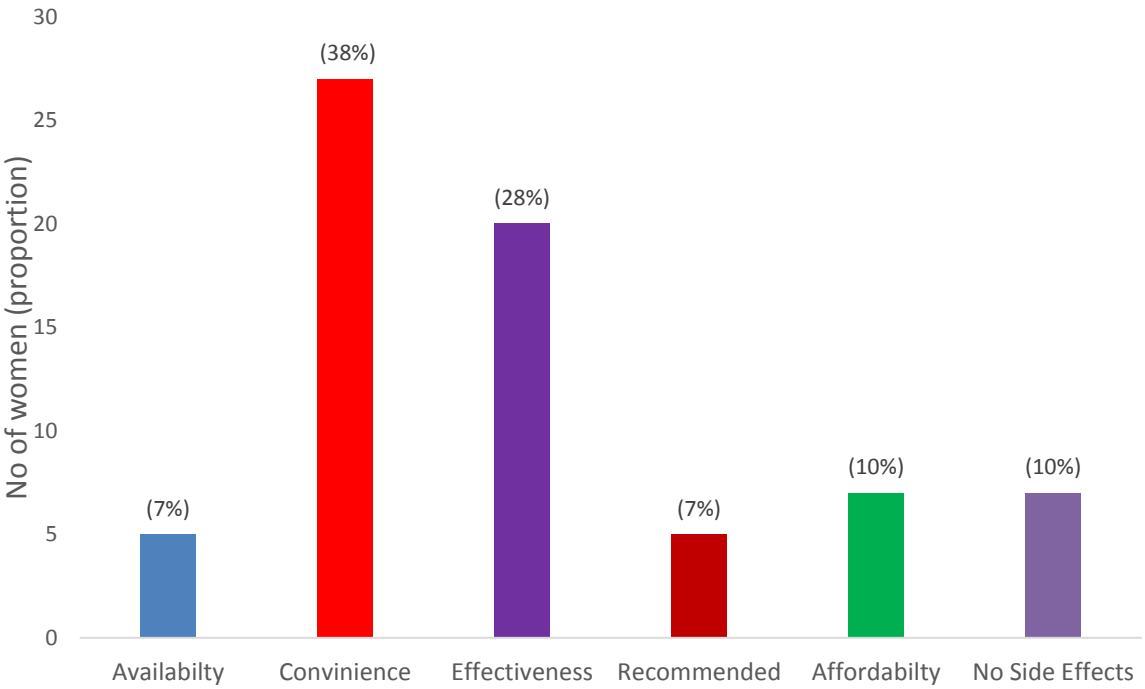

Fig 3: Resasons for Modern Contraceptive choices and preferences among women at Madina Market

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The reasons for preference differed among those who chose a particular type of modern contraceptive as shown in table 2.

Table 2: Reasons for preference of particular modern contraceptive methods.

	Reasons						
Preferred Modern Contraceptives	Availab	Conven	Effective	Recom	Affordabl	NSE	Total
IUD		4					4
Pill	3	4	1	1	2	1	12
Male condom		5	4		2		11
Female condom		3			1	1	5
Implant		6	4	2		2	14
Injectable	2	5	9	2	2	3	23
Tubal ligation			2				2
Total	5	27	20	5	7	7	71

KEY:

Availab.- Availability, Conven. – Coneinience, Effective – Effectiveness, Recom- Recommended by Doctor, Affordabl – Affordability, NSE- No side effects experienced.

4.5 Factors influencing modern contraceptive use

The women gave a number of reasons for not using contraceptives with the fear of side effects being reported as the highest (n=111, 56.06%). Only 5 (2.3%) women gave the reason that they were using the calendar method. All the sociodemographic factors which are age, religion, number of children, ethnicity and education were not found to be associated with contraceptive use. After regression analysis, ease of access to modern contraceptives (p= 0.036), fear of side

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effects (p< 0.001), previous bad experiences (p< 0.001) and the perception that contraceptives have a bad effect on one's health (p=0.044), were the variables found to be associated with contraceptive use. Among the reasons given for not using modern contraceptives were; fear of side effects (56.06%), previous bad experiences (21.21%) and desire for more children (2.02%) (Table 3)

Table 3: Reasons for nonuse of modern contraceptives.

Reason	frequency (N=199)	percent (%)
Negative influence		
Fear of side effects	111	56.06
Husband's disapproval	3	1.52
Previous bad experience	42	21.21
Religious reasons	9	4.55
Father absent	2	1.01
Not married	7	3.54
Desire for more children	4	2.02
Not good for one's health	13	6.53
Uncomfortable	3	1.52
Using natural/calendar method	5	2.53

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Table 4: Factors influencing modern contraceptive use (N= 199).

Logistic regression

Factors	**frequency n (%)**	**p- value (95% CI)**
Fear of side effects	111 (55.77)	<**0.001**(1.640,2.649)
Husband's disapproval	3 (1.50)	0.347 (-0.691,1.959)
Previous bad experience	42 (21.10)	<**0.001** (0.747, 2.243)
Religious reasons	9 (4.52)	0.097(-0.238, 2.851)
Father absent	2 (1.01)	0.4411(-1.974, 4.519)
Not married	7 (3.51)	0.145(-0.450, 3.043)
Desire for more children	4 (2.01)	0.273(0.034, 2.19))
Not good for health	13 (6.53)	**0.044** (-0.529, -0.020)
Uncomfortable	3 (1.50)	0.34 (-1.377, 3.931)
Natural/Calendar	5 (2.51)	0.22 (-0.774, 3.348)
Ease of access		
Easily accessible	256 (94.81)	**0.036** (0.0851, 2.578)
Difficult to access	14 (5.19)	

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4.5 Knowledge of modern contraceptive methods

Every woman who participated in the study had some knowledge of modern contraceptives; they knew at least one modern method. However, the pill (n= 166) was the highest reported known method among the market women interviewed and the least known was tubal ligation (n= 21).

4.6 Initial introduction to modern contraceptives

Most of the women first heard about contraceptives from the health facility (40%). Other sources of first information on contraceptives reported were; television (31.11%), family/friends (22.59%) and radio (6.30%). Market women interviewed reportedly get their modern contraceptives supplies from two main sources, which were; the Hospitals/Clinics (71.83%) and Community Pharmacies (28.17%).

4.7 Other comments from participants

The participating women were asked if they had any additional comments concerning modern contraceptive use and some of the comments given were as follows:

- "The Doctors and nurses should do lab tests and examine each woman to determine which method suits her. That way there will be less side effects".
- "After administering the family planning method to us, the nurses should be truthful to us and tell us how bad the side effects can be. It was a friend who encouraged me to use a blood tonic because I bled so much and became anaemic".
- "I know family planning is good. I wish I could use it but I'm afraid of the effects".
- "Contraceptives are good. Without them I'd have had many children and may not have been able to take care of them".

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Two women mentioned that there were herbs that had been used over the years to prevent pregnancy and this may require further study to establish the veracity of this claim in a future study.

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CHAPTER FIVE

DISCUSSION

5.1 Prevalence

The contraceptive prevalence rate at the Madina market was found to be 26.30%, which is almost 4% higher than the rate recorded in the Ghana Demographic Health Survey. This slight increase could be due to an increase in the effort by the health sector to promote modern contraceptives use among women. In 2015, Ghana targeted a CPR of 50% by 2020 (Adjei et al, 2015) from which the rate found in this study is far lower.

The Government of Ghana had a plan in 2016 to increase CPR to 30% among married and 40% among unmarried women of reproductive age by 2020, if the Ghana Family Planning Costed Implementation Plan 2016-2020 (GFPCIP) is implemented effectively (Ministry of Health, 2016).

Considering that the ease of access to modern contraceptives was associated with its use (p=0.020 95% CI -0.068; 0.010), this increase might be due to the increased efforts by the Government to make contraceptives easily accessible. Family planning services are now at all levels of health facilities from Teaching Hospitals to the CHP compounds. Community health workers have a duty to take health services closer to clients in their communities. This includes family planning services (Ghana Health Service, 2002).

5.2 Preference

All the women who were using modern contraceptives chose the method they were using currently as their preferred choice. There have been studies where there was a mismatch between the current methods being used and the preferred methods. In the study by He et al., (2017), 34%

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of women preferred methods that were not long acting and 18% rather preferred the long acting methods. This was consistent with the finding in this study as most of the women (32.39%) using contraceptives at the Madina market preferred the injectable, which is short acting, followed by preference for the implant. These two together form 50% of all the methods reported. These preferences were explained by the women that they are available and convenient because they don't have to remember a daily routine. This was also revealed in a study in Kumasi, which identified reversibility as one of the factors for preference (Appiah-Agyekum & Kayi, 2013). Apart from that they were made aware that the implant could be removed at any time. The perception that, longer acting contraceptive methods have the capability of delaying conception even after the stoppage had influenced its low uptake. Reasons for preference reported by He et al., (2017) included cost/insurance, level of perceived or actual need and method specific preference concerns with convenience (38.03%) and safety (28.17%) being the two most commonly reported among their respondents.

Other reason for contraceptive choices reported in the literature was more personal in nature, which concerns the suitability of a given method to an individual needs and tolerance (Glasier and Gebbie, 2016).This point was addressed by some of the respondents in this study who requested that Doctors should test every woman who reports for a family planning method in a bid to determine the appropriate method.

In this study, the consistent match between current method being used and the preferred method may be attributed to accessibility and availability of family planning services and products in the Municipality. Participants were emphatic about the ease of access to contraceptives at the Health facilities. Availability and accessibility of the preferred method of contraceptive may promote continuous use of contraceptives in the Municipality and this may improve the CPR. In some

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jurisdictions, the situation is different. An example is in Rwanda (Farmer et al., 2015).where a study showed that the women used methods other than their preferences due to difficulties in accessing some of the contraceptive products, for reasons such as stock outs. He et al (2017) also reported a mismatch between preference and use in a study.

5.3 Factors influencing contraceptive use

Sociodemographic factors such age, religion, number of children, ethnicity and level of education were all not found to be associated with modern contraceptive use. The association between ease of access to family planning and contraceptive use may be attributed to the good family planning services at the health facilities in the Municipality. A study by (Farias et al., 2016) showed that, most women who used contraceptives had access to contraceptives. This shows the importance of accessibility to contraceptive products and services in the effort to improve contraceptive prevalence rates.

The UN targeted provision of universal access to reproductive health by 2015, which included use of contraceptives by sexually active women (Bongaarts, 2014). However, It was recognized that access to contraceptive products affects its prevalence rate in a given population (Bongaarts, 2014), which may contributes to a high level of unmet needs.

The other factors that were found to be associated with modern contraceptives were fear of side effects, previous bad experiences and the perception that contraceptives affect one's health adversely. Other studies have identified fear of side effects as one of the main barriers to contraceptive use(Orach et al., 2015). The fear of side effects was mainly due to what they had heard from other women or perceived after observing other women. Fears such as fibroids, cessation of menses, menorrhagia and barrenness were mentioned in this study. Concerning the

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perception that contraceptives affect one's health, conditions such as cardiovascular diseases and deep vein thrombosis were mentioned in this study.

5.4 Knowledge of contraceptives

Knowledge of contraceptives was reported by all study participants, meaning that each of the participants had some knowledge of contraceptives. They each knew at least one method of contraception. This however did not translate into a high contraceptive prevalence rate and this compares with what Ackerson & Zielinski (2017) reported that knowledge of contraceptives alone is not enough to make women use contraception. The knowledge about contraceptives however was from four main sources: Television, radio, Health facilities and family and friends. This means that these channels can be used to promote contraceptive use among the population in general but more specifically, market women in Ghana.

5.5 Other comments

The additional comments made by the respondents suggest that they were not against the use of contraceptives but rather requested for more holistic information about contraceptives and family planning. They were of the view that with the right information, they can make better decisions and choices with some of them acknowledging how helpful contraceptives had been to them in planning their families appropriately.

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CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 CONCLUSION

The contraceptive Prevalence Rate (CPR) at the Madina Market was 26.3%. This rate is about 4% higher than the rate in Ghana in 2014. It is however about 23% lower than the target set for the country by next year, 2020.

Most of the women who were using modern contraceptives preferred the injectable and the most indicated reason for choice and preference was convenience.

The top reasons for nonuse of modern contraceptives were fear of side effects, previous bad experiences and the perception that contraceptives were bad for one's health.

Easy access to contraceptives was found to improve contraceptive uptake.

6.2 RECOMMENDATIONS

1. Accessibility of modern contraceptives and family planning methods at all levels of health facilities should be a priority. The Ghana Health Service and its partners working on Reproductive Health Services should consider this.
2. Interventions to promote contraceptive use should target demystifying the wrong perceptions and myths about contraception as well as incorporate reasons for choices and preferences of the individuals.
3. Health workers involved in the provision of Family planning services must be continually trained on the management and counselling of women who report perceived side effects of contraceptives to the health facilities. This may help to reassure the women and therefore reduce the stoppage of contraceptives use.

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APPENDICES

Appendix 1: Questionnaire

FACTORS INFLUENCING MODERN CONTRACEPTIVE USE AMONG WOMEN AT THE MADINA MARKET

Thank you very much for agreeing to participate in the study. I am Grace Akwa from the School of Public Health, University of Ghana, Legon. We are doing research to find out the **factors influencing modern contraceptive use among women at the Madina Market.** You have been selected to answer a few questions that will help us find these factors. In the course of the interview, if you have any question or require additional explanations, please feel free to ask me and I will readily answer you. Remember that there is no right or wrong answer to any question that I will be asking you.

BACKGROUND DETAILS		**Response**
A1	Date of Interview (dd/mm/yyyy)	/ /
A2	Participant's Serial Number	
A3	Participant's Unique ID	
A4	Community:	

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Q1	AGE	18 – 24	1
		25 -29	2
		30 – 34	3
		35 – 39	4
		40 -44	5
		45 - 49	6
Q2	RELIGION	CHRISTIAN	1
		MOSLEM	2
		TRADITIONALIST	3
		OTHER(SPECIFY)	4

Q3	EDUCATIONAL BACKGROUND	NO EDUCATION	1
		PRIMARY	2

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		JHS	3
		SHS	4
		TERTIARY	5
Q4	ETHNIC GROUP	AKAN	1
		EWE	2
		GA	3
		HAUSA	4
		OTHER	5
Q5	NUMBER OF CHILDREN	1	1
		2	2
		3	3
		4 AND ABOVE	4
Q6	WHICH MODERN CONTRACEPTIVES DO YOU	IUD	1

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	KNOW ABOUT?	PILL	2
		MALE CONDOM	3
		FEMALE CONDOM	4
		IMPLANT	5
		INJECTABLE	6
		VASECTOMY	7
		TUBAL LIGATION	8
		NONE	9

Q7	WHERE DID YOU HEAR ABOUT MODERN CONTRACEPTIVES?	TELEVISION	1
		RADIO	2
		HOSPITAL/CLINIC	3
		FAMILY/FRIENDS	4
		FAMILY	5

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		FRIENDS	6
Q8	WHICH CONTRACEPTIVE METHOD DO YOU USE?	IUD	1
		PILL	2
		MALE CONDOM	3
		FEMALE CONDOM	4
		IMPLANT	5
		INJECTABLE	6
		VASECTOMY	7
		TUBAL LIGATION	8
		NONE	9
	IF NONE, WHY NOT?		
Q9	WHICH CONTRACEPTIVE	IUD	1

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	METHOD DO YOU PREFER?	PILL	2
		MALE CONDOM	3
		FEMALE CONDOM	4
		IMPLANT	5
		INJECTABLE	6
		VASECTOMY	7
		TUBAL LIGATION	8
		NONE	9
Q10	WHY DO YOU PREFER THIS METHOD?		
Q11	WHERE DO YOU OBTAIN YOUR CONTRACEPTIVES?	HOSPITAL/CLINIC	1
		COMMUNITY PHARMACY	2
		FAMILY/FRIENDS	3

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Q13	IS IT EASY TO FIND MODERN CONTRACEPTIVES IN YOUR COMMUNITY?	YES	1
		NO	2
Q14	ANY OTHER COMMENT ABOUT CONTRACEPTIVES?		

THANK YOU VERY MUCH FOR GIVING ME ALL THIS INFORMATION.

…… ……

NAME OF INTERVIEWER SIGNATURE

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Appendix 2: Consent Form

TITLE: FACTORS INFLUENCING MODERN CONTRACEPTIVE USE AMONG WOMEN AT THE MADINA MARKET

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General information about the research

The main aim of this study is to find out why a woman of reproductive age will or will not use a contraceptive to control childbearing.

It is also to find out which modern contraceptive is preferred by most of the women and what fraction of the women, actually use modern contraceptives

In this study, field workers will be trained as research assistants to assist in the collection of data. A questionnaire will be handed to you to either fill yourself, or be assisted by the principal investigator or a field worker. You will be required to provide answers to some questions about your knowledge and use of contraceptives, how easy or difficult it is for you to access them and your preferences. Questions about your personal life will also be asked.

The duration of the study will be 28 days.

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Possible risks and discomforts

The risk in this study is minimal. However, there may be a few minor discomforts. You will be interviewed and that will take some of your time. Also, you may be uncomfortable with sharing some personal information and you have the right to do so. Just let me know and we shall proceed without further discussion on the particular issue.

Possible benefits

The information that will be gathered will help design programmes to promote contraceptive use for population control and better living conditions, for citizens.

Confidentiality

All the information collected using the study tools, will be kept confidential. Information will be stored in a file without any identification parameters like names. They will be locked up.

Compensation

Participants will not be paid any compensation for participating in the study.

Voluntary participation and right to leave the research

You have the right to decide not to participate in the study. If you do agree to participate, you can change your mind if at a point, you don't want to continue with it and this will not affect any of your rights as a member of this community.

Contact for additional information

Grace Akwa

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School of Public Health

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University of Ghana.

Legon.

Tel. 0244623977

E mail: nanamoaba@gmail.com

Your rights as a participant

This research would be reviewed and approved by the Ghana Health Service Ethical Review Committee (GHS ERC). Should you have any questions about your rights as a research participant, you may contact the Chairman of the Ethical Review committee:

The Chairman

Ethical Review Committee

Ghana Health Service

P.O. Box MB 190

Accra.

Email: ghserc@gmail.com. Tel: 0302 681109

Volunteer agreement

The document describing the benefits, risks and procedures for the research title 'Factors Influencing Modern Contraceptive Use among Women at the Madina Market', has been explained to me. I have been given an opportunity to have any questions about the research, answered to my satisfaction.

I agree to participate as a volunteer.

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…… …….

Date Name and signature or mark of volunteer

If volunteers cannot read the form themselves a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

_____ _____

Date Name and signature of witness

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research, have been explained to the above individual.

……. ……..

Date Name and signature of Person Who Obtained the consent