

**SCHOOL OF PUBLIC HEALTH
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**FACTORS AFFECTING FEMALE ADOLESCENT MODERN CONTRACEPTIVE
USE IN JAMES TOWN, GREATER ACCRA REGION-GHANA**

BY

PEARL AMA VONDEE

(10636510)

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DECLARATION

I, Pearl Ama Vondee, declare that this dissertation is the result of my own original research, with the exception of references to other people's work, which have been duly acknowledged. I further attest that this work has not been presented elsewhere in whole or in part for another degree.

.....
PEARL AMA VONDEE
(STUDENT)

.....
DATE

.....
DR. ABUBAKAR MANU
(SUPERVISOR)

.....
DATE

DEDICATION

Perseverance, commitment, and dedication were the fundamental elements for the successful completion of my postgraduate dissertation. I dedicate this dissertation to my lovely husband Happy Kwame Dzah for his immerse support, love, and encouragement. To my lovely daughters Senam and Emefa for their patience and understanding. I dedicate this important academic achievement to them because without their presence, support and encouragement this will not have been a success. I love you!

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ABSTRACT

Background: Effective use of contraception can curb unsafe abortions, STDs & unwanted pregnancies. Adolescents in James Town are involved in risky sexual behaviour. Low patronage of contraceptives among adolescents puts them at a higher risk of unwanted and unplanned pregnancies. This study, therefore, ascertained factors affecting contraceptive use in the Ashiedu Keteke District.

Objectives: This study sought to explore factors affecting female adolescent contraceptive use in James Town, by examining their knowledge on contraceptives, contraceptive use, and identify reasons affecting contraceptive use among female adolescents aged 12-19 years in James Town.

Methods: A qualitative study with a phenomenological design using a semi-structured interview guide was conducted among sexually active adolescents 12-19 years resident in James Town. Eight (8) Focus Group Discussions (FGD) and eight (8) in-depth interviews were conducted. Data were transcribed, coded and analyzed thematically in six phases.

Results: Many of the female adolescents knew about contraceptives as a method of preventing unwanted pregnancies and Sexually Transmitted Infections (STIs). Contraceptives methods that participants knew were male condoms, emergency contraceptive pills, implants, IUD and injectable. Some of the participants reported to have ever used contraceptives, some were currently using whereas others had never used contraceptives. Contraception methods that were mostly used by female adolescents are a male condom and emergency contraception. Reasons that prominently featured as having influenced contraceptive usage included peer and family influences, health facility and provider-related factors, religion, and culture.

Conclusion: Knowledge and awareness of contraceptive methods and usage were found to be appreciable among female adolescents. Inconsistency in the use of contraceptives was identified among participants. Future qualitative studies must seek to explore adolescent contraceptive usage factors from the perspective of parents and service providers.

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LIST OF ABBREVIATIONS

AIDS Syndrome	Acquired Immune Deficiency
COC's	Combined Oral Contraceptives
CWC	Child Welfare Clinic
EA	Enumeration Area
ECP's	Emergency Contraceptive Pills
FGD	Focus Group Discussion
GSS	Ghana Statistical Survey
HIV	Human Immunodeficiency Virus
IDI	In-Depth Interview
IUD	Intrauterine Device
LARC's Contraceptives	Long Acting Reversible
NCBI Information	National Center for Biotechnology
NGO	Non-Governmental Organization
PI	Principal Investigator
POP's	Progestin-only Pills
STD's	Sexually Transmitted Diseases
STI's	Sexually Transmitted Infections
UNFPA	United Nation Population Fund
UNICEF	United Nation Children Fund
WHO	World Health Organizations

DEFINITION OF TERMS

Adolescents: A person aged 10-19 years.

Adolescent fertility rate: Number of births per 1000 women aged 15-19 years

Contraception: Methods or devices used to prevent pregnancy.

Contraceptives: Device, drug or chemical agent that prevents conception.

Reproductive health: Reproductive health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes.

Sexual reproductive health: Sexual health means having a responsible, satisfying, and safe sex life and not merely having sex for reproduction.

Sexual Activity: Having ever engaged in sexual intercourse

Contraceptive utilization: Ever use of modern contraceptive (both current and past use)

Family planning: Practice of regulating the number of children one has and the intervals between their births, mostly by means of contraception or voluntary sterilization.

Unmet need: Women who are productive and sexually active, who want to stop or delay childbearing but do not have access to any method of contraception.

Reproductive health: This is defined as a state of physical, mental and social well-being in all matters relating to the reproductive system, at all stages of life

CHAPTER ONE

INTRODUCTION

1.1 Background

The World Health Organization (WHO) as cited in the Encyclopedia Britannica defines adolescence as a transition from childhood into adulthood where physical and emotional changes occur (Csikszentmihalyi, 2018). Adolescents are persons aged 10-19 years. Usually characterized by increased physical and mental changes that affect their sexuality and sexual preferences. Adolescence, with its many changes, has long been considered a turbulent life stage (Imaledo, Peter-Kio, & Asuquo, 2012). In addition to the pubertal stages, the adolescent faces psychological challenges associated with peer relationships, self-identity, and exploration of possible sexual relationships with the opposite sex (Imaledo, Peter-Kio, & Asuquo, 2012)

The United Nation Children Education Fund (UNICEF) reports that adolescents form one-fifth of the world's population thus about 1.2 billion (UNICEF, 2012). A majority 80% of this population live in developing countries (UNICEF, 2012). Over 16 million adolescents give birth every year worldwide with an additional 5 million having an abortion. Half of these adolescents live in sub-Saharan Africa (Poobalan et al., 2009). Unsafe abortions, sexually transmitted disease and unwanted pregnancies have been reported as challenges due to difficulties with using contraceptives among adolescents (Sedgh, Singh, Henshaw, & Guttmacher, 2012).

Despite the existence of numerous family planning programmes for more than 40 years, the prevalence rate of contraceptive use remains low in several countries. A contraceptive prevalence rate of 80-85% is viewed as consistent, optimum and ideal to ensure safe pregnancies and births (Ganchimeg et al., 2014; Wood, 2010). As of 2008, the prevalence of contraceptive use was 61.7% in developing countries with huge variations. Specifically, a rate of 2.8% in Chad and 80% in Costa Rica, and 28% in the African region, have been reported (Ganchimeg et al., 2014).

Generally, contraceptive use has increased worldwide. However, reproductive health service, high-quality comprehensive sexuality education, adolescent access to sexual health service, confidentiality, informed consent and privacy remains a challenge in several countries (Puri & Cleland, 2006). In developing countries, access to family planning and sex education is poor among adolescents. Studies from Africa (Darko, 2016; Tayo et al., 2011) have revealed that a high proportion of adolescents are predisposed to conception related risk. This could be attributed to poor or no sex and contraception education accounting for high incidence of childbirth. There is also the tendency of health workers and family to overlook the reproductive needs of adolescent because of cultural and religious value (Trinh, 2012).

Support from peers, adult, and the media ineffective contraception use have also been proposed to help an adolescent in the prevention of unwanted pregnancies and birth (Godia et al., 2013; Imaledo, Peter-Kio, & Asuquo, 2012). Generally, the uptake of family planning in developing countries is low with persistently high rates of unmet

needs and reduced rates of contraceptive use (Yidana, Ziblim, Azongo, & Abass, 2015). Studies suggest most adolescents in sub-Saharan Africa are not provided with advice and education on reproductive health issues. However, population growth and rapid urbanization have forced most African countries to invest in family planning intervention (Ahman & Shah, 2011; Aninanya et al., 2015; Asiiimwe, Ndugga, & Mushomi, 2013).

A recent study in Ghana (Eliason et al., 2014) reported that induced abortion with its related complications constitutes the most common outcomes of unintended pregnancies. About 12% of maternal deaths are attributed to induced abortions in Ghana. Maternal deaths among women without contraceptive use is 1.8 times higher (Hameed et al., 2014). According to (Eliason et al., 2014), up to 35% of maternal deaths and 13% of child mortalities could be prevented if birth intervals were at least 2 years. There is a disconnect between the levels of knowledge of adolescents on contraceptive usage. Specifically, whereas 96.5% of female adolescents have knowledge of contraceptives usage, only 8.7% use contraceptives (Ghana Statistical Service, Ghana Health Service, ICF International 2015).

1.2 Problem Statement

The 2014 Ghana Demographic and Health Survey reports contraceptive usage rate of 45% among adolescent. This falls far below the accepted levels of 80-85% by the World Health Organization. Of this 45%, 13% use traditional methods. About a third (75%) of young women in developing countries have shown to engage in high levels of sexual activities before age 20 (Williamson, Parkes, Wight, Petticrew, & Hart, 2009). Low

usage of contraceptives among adolescents (especially females) puts them at a higher risk of unwanted and unplanned pregnancy (Ghana Statistical Service, Ghana Health Service, ICF International 2015, 2014). In Ghana only 27 % of women are using contraception, and the contraception Prevalence Rate in Ghana is 23% among women who are sexually active while the unmet need is 30% (Ghana Statistical Service, Ghana Health Service, ICF International 2015, 2014).

Even though the trends of family planning indicators such as total fertility rate and contraceptive use in Ghana have been improving, there is a challenge of increasing access to many women who desire to limit or space births. The non-use of contraceptives by adolescents has a proportionate negative effect on their total well-being and that of their children. There is an increasing trend in rural areas largely in terms of limited access to quality care such as the case of Ashiedu Keteke District. The annual report in the Ashiedu-Keteke district of 2016 depicted a high rate of Adolescent Antenatal attendance of 561 and an increase of 602 in 2017. This underscores the need to ascertain what factors might be affecting low contraceptive use in the Ashiedu Keteke District.

1.3 Justification

Teenage motherhood is currently a major contributor to child and maternal mortality and poverty in developing countries (Feleke, Koye, Demssie, & Mengesha, 2013). According to the United Nations, meeting contraceptive needs of women played an important role in countries that have achieved MDG5 (Casey, 2012). Providing access to family planning for women in less resourced countries could reduce the incidence of maternal deaths by a third (Say et al., 2014). Governments could save up to US\$31 from health care, water,

education, sewers, housing from unintended pregnancies and its complications by using only US\$4 on effective family planning (Eliason et al., 2014). Another study by Apanga & Adam (2015) reported educational and economic empowerment for women when contraceptives are effectively used.

In Ghana, although significant amount of progress has been made in creating the awareness on contraceptive use, there is a high unmet need for family planning (Gaetano et al., 2014). According to the Ghana Demographic and Health Survey (GDHS), a great proportion of women have low acceptance rate for contraceptive use (Ghana Statistical Service (GSS), 2009) and it is of the view of Ghana Health Service that should family planning services be highly accepted, there will be reduction in maternal mortality and lives of children and mothers will improve (Eliason et. al., 2013).

Additionally, an estimated 750,000 teenagers in Ghana become pregnant despite improved knowledge of contraceptive use (Asampong, Osafo, Bingenheimer, & Ahiadeke, 2013). Even so, a study in some part of the Greater Accra Region by Kareem and Samba (2016) found only 38% contraceptive use among adolescents. This underscores the need to identify factors affecting contraceptives use among adolescents in Ghana and as such, this research will provide adequate information on the factors affecting modern contraceptive use among female adolescents. The information obtained will be used to strengthen existing family planning and contraceptive use programmes. It will also be used to create the needed awareness of contraceptive use among adolescents. The information obtained can also be used to formulate guidelines for developing and implementing suitable educational interventions for adolescents.

1.4 Conceptual framework

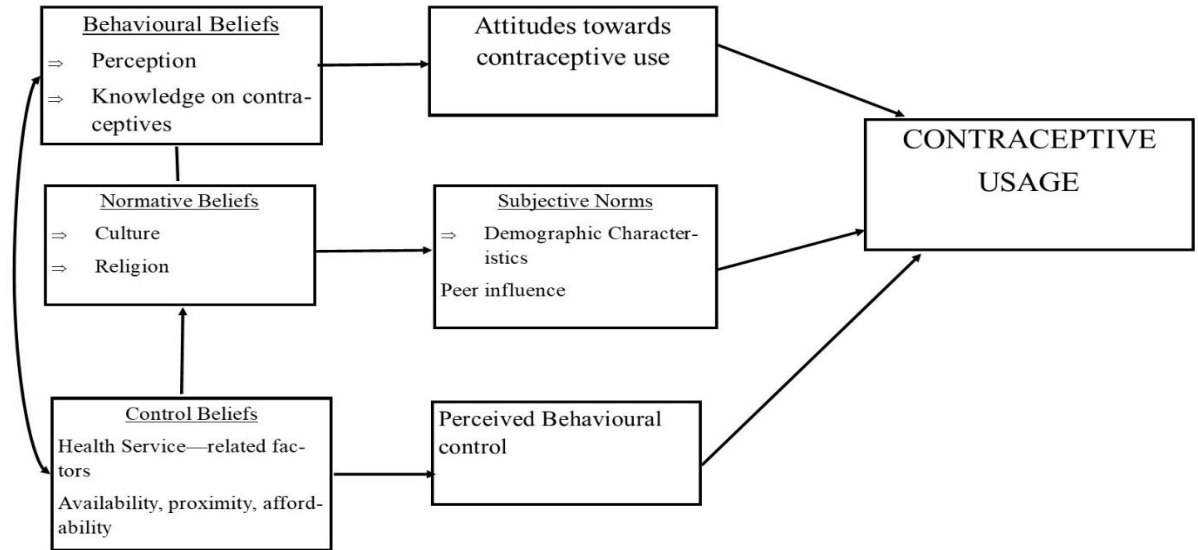


Figure 1: Conceptual Framework of factors affecting female adolescents’ modern contraceptive use.

Adapted from the Theory of Planned Behaviour/Reasoned Action by Ajzen and Fishbein (1980)

The theory of reason action proposes that an individual behaviour is influenced by his or her intention to carry out the intended behaviour. According to the theory, the attitude toward the behaviour and subjective norm are a result of one’s intention. An individual’s level of knowledge and perception about contraceptives will influence his or her attitude towards contraceptive usage. Ugoji (2014) posits that there is an interplay between normative beliefs such as culture and religion and Behavioural beliefs such as knowledge

and perception which will go a long way to influence his or her attitude towards contraceptives and its usage (Ugoji, 2014).

According to Speizer et al, (2001) culture and religion play significant roles in dictating several subjective norms such as age for marriage and acceptable periods for the commencement of sexual activity. These demographic characteristics which are outlined under subjective norms play a key function in determining the use of contraceptives. Studies have found health services–related factors such as availability of commodities for contraceptives, cost and proximity to a health facility as having an influence on an adolescent’s use of contraceptives (Godia et al., 2013; Gomes, 2008; Ikamari & Towett, 2007). There is a linkage between health care facility availability and the level of knowledge on contraceptives, as well as adolescent’s perceptions of contraceptives. Normative beliefs such as knowledge and perception have an intricate relationship with behavioural beliefs such as culture and religion (Khan and Mishra, 2008). All these work through an individual’s attitudes to affect the intention of an adolescent to utilize contraceptives.

1.5 Study Objectives

1.5.1 General objective

To explore, among female adolescents of James Town, the knowledge on modern contraceptive use and factors affecting this utilization.

1.5.2 Specific objectives

The specific objectives of the study are to:

1. Explore female adolescents' knowledge of modern contraceptives.
2. Explore modern contraceptive use among female adolescents.
3. Identify the reasons affecting modern contraceptive use among female adolescents.

1.6 Research questions

1. What knowledge do female adolescents have on modern contraceptive?
2. Which modern contraceptive methods are being used by female adolescents?
3. What are the reasons affecting modern contraceptive use among female adolescents?

1.7 Organization of the work

This research report comprises of five chapters. Chapter one consists of the introduction, which entails the background of the study, statement of the problem, research objectives and factors affecting uptake of contraceptives among teenagers. The chapter also describes the justification and scope of the study. Chapter two reviewed both theoretical and empirical published literature of different authors on factors affecting contraceptive use. Chapter three outlines the methodology; study population, study design, sample size, sampling and data collection tools and procedure. It also dealt with how ethical issues were handled in the study. Chapter four and five covers the results and discussions of the study respectively. It presents the findings of the study and discusses it using reviewed literature. Lastly, chapter six provides conclusions and recommendations drawn from the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of the literature on modern contraceptive use. The review was on modern contraceptive knowledge, use of contraceptive methods and reasons affecting contraceptive usage among female adolescents. The literature was reviewed in accordance with the stated research objectives and questions. Databases such as PubMed, Web of Science, Science Direct, Scopus and Google Scholar were used to identify published works relevant to adolescent contraceptive use.

2.2 Background

Contraception is defined as the use of a contraceptive method to prevent pregnancy by interfering with ovulation, fertilization, and/or implantation (Csapo et al., 2017). Contraceptives aid women in planning for the number of children and when to have them (Csapo et al., 2017). Contraceptives are categorised into hormonal or non-hormonal methods. The methods are intra-uterine devices, implants, injections, condoms, sterilization, pills and spermicidal (Apter, 2012).

Contraceptive methods can further be put into two groups: modern and traditional. Modern contraceptives can be classified as, intrauterine devices (IUDs), oral contraceptives, female and male sterilization, injections, condoms, and the diaphragm. Creel and Perry (2003) cited by Indongo (2007) stated other practices that also have a bearing on fertility. According to them, prolonged breastfeeding and postpartum sexual

abstinence that have by conversion been used over the years for recuperation, survival of children, as well as spacing, can also be used for limiting the size of family (WHO, 2007).

Adolescents predominantly prefer using condoms as their main contraceptive. Hormonal contraception is the next viable option for adolescents (Apter, 2012). Apter, however, is of the opinion that such hormonal contraception should be recommended for use by persons engaged in a monogamous relationship. WHO 2007 stated that, apart from sterilization, contraceptives methods that are considered safe for an adult are equally safe for use by adolescents. Older women do not encounter the same barriers encountered by adolescents psychologically and socially (WHO, 2007). This according to Cleland and his colleagues, emanates from the denial of the sexual rights of adolescents. (Cleland, Ali, & Shah, 2006). The sexual health of adolescents is premised and grounded fundamentally on the recognition of their sexual rights, provision of education and counseling on sexuality as well as ensuring that service provision is done in a confidential manner (Godia, et al., 2013).

Tackling the Sexual and Reproductive Health problems confronted by adolescents within the sub-Saharan African region is very crucial. This is because adolescents who give birth contribute significantly to the escalating levels of fertility within this sub-region (Glasier, 2006). Poverty reduction among families as well as women empowerment strategies can be further enhanced when the sexual and reproductive health of adolescents is improved (UNFPA, 2010). The decrease in the traditional values which has subsequently led to a

decrease in the value placed on chastity prior to marriage has been attributed to modernization, westernized media orientation and education (Kinsman et al., 2000). Health behaviour change messages can be conveyed with the aid of the entertainment media since it has been established to provide an interesting and palatable approach that is also culturally acceptable (Masatu et al., 2003). Childbearing among young adolescents and teenagers in Africa is very pervasive. Contraceptive usage among women who are active sexually continues to be at a very low level in spite of the widespread level of knowledge (Speizer et al., 2001).

Speizer et al., (2001), further linked the lack of interest in contraceptive usage partly to the stigma experienced by young women within the sociocultural setting. This according to them has led to a reduced access to contraceptive methods among this caliber of women. They further identified only a small number of adolescent women who correctly knew their fertile period. Over 200 million women worldwide have no access to modern and effective contraceptives (UNFPA, 2010). In the developing countries, the unavailability of family planning culminates in 76 million unplanned pregnancies each year (Population Reference Bureau, 2007). Disapproving healthcare providers and community discourages adolescents from seeking reproductive health care (UNFPA, 2003).

Contraceptive services need to be “youth-friendly” in order to encourage adolescents to seek reproductive health care (Godia, et al., 2013). Maternal complications such as

premature death and underweight are some of the complications that result from the termination of unwanted pregnancies that are carried out through unsafe and life-threatening procedures (Gipson, Koenig, & Hindin, 2008). In East Africa, one in five maternal deaths is due to unsafe abortion; a large proportion of these deaths are due to unplanned pregnancies (Bankole & Malarcher, 2010). Adolescence pregnancies and childbearing in Africa and beyond is a serious and important public health problem, because becoming pregnant at a teenage age or been adolescents have devastating health issues leading to, and relate to increased maternal mortality, under-five and infant morbidity and mortality, and neonatal complicated health outcome and the mother as well. For which adolescents pregnancy have been estimated to about 82%, with adolescents 15-19 years pregnancies to be unintended because the adolescents themselves have reported to have no intention for the pregnancies and thereby result to unsafe abortions and it accompanied consequences (Muula, 2008).

There also adverse concern for adolescents giving birth at younger age due to the fact that; some of them their brighter future are been terminated especially adolescent girls and have the risk of contracting sexually transmitted infections among the sexually active adolescents, which call for the need to increase adolescents contraceptives use and sexual activity control among adolescents (Blanc *et al*, 2014). Again, in a study conducted by Blanc *et al* (2014) found adolescents aged 10-19 years to constitute about 20% of the World's population, for which the study highlighted the impact of adolescents pregnancies and childbearing on the future world population growth rate if measures are not put in place to the control of adolescents fertility and enhance contraceptives use

among the adolescents. The study also outlines the need for a reform in adolescents reproductive health policies and contraceptives use and as well as the needs to increase scientific research in the area of adolescents health and contraceptives use most especially among the sexually active (Blanc *et al*, 2014). This, and among others have necessitated the need for this study to explore the level of contraceptives practices among female adolescents in James Town, Accra, Ghana.

2.3 Methods of contraception

There are various methods of contraception which can be used by an adolescent for the prevention of pregnancy. The most appropriate method for birth control among sexually active adolescents depends on the following factors; age, the frequency of sexual activity, number of sexual partners, the desired number of children in the future, and family history of certain diseases.

For a better understanding of these contraceptives, they are grouped and discussed under four broad headings namely; IUD, hormonal methods, barrier methods, and post-coital contraception.

2.3.1 Intra-Uterine Device:

Is a tiny device which is inserted into the uterus of the woman to help prevent pregnancy, its insertion is usually done by a health worker. They include;

Hormonal IUD: it is also called an intrauterine system (IUS) which releases only progestin hormone (levonorgestrel). The progestin hormone released causes the

thickening of the cervical mucus which then blocks the sperm from reaching the fertilized ovum or ovaries when the eggs are released. Its failure rate is not more than 0.5%. It uses may result in 4% of women to experienced expulsion and will have to be reinserted again (US-FDA, 2015). The use of this method by women may treat an overflow of menstrual blood to reduce the uterine bleeding.

Copper IUD: It is a hormonal device which prevents or blocked the sperm from reaching and fertilizing the egg, and may also inhibit the egg from attaching to the womb (US-FDA, 2015). Without the occurrence of fertilization of the egg, its physical presence can prevent the implantation of the fertilized eggs to the uterus lining walls. About 1 in 100 women will experience failure of the method; and will have about 4% of women to have the device reinserted when there is the expulsion of the device. Its duration in the body is about 10 years. (US-FDA, 2015) women who have pelvic infections and previous uterine perforations during IUD insertion and those already pregnant are not allowed to use this method. Again, women who had cervical cancer or cancer of the uterus as well as unexplained vaginal bleeding, and pelvic tuberculosis are not recommended to use

2.3.2 Short-Acting Hormonal Methods

As the name implies they are birth control methods for a shorter period. They are hormonal and are used to stop or regulate ovulation to prevent pregnancy. The term ovulation is defined as a biological process experience by women whereby eggs are released from the ovary to enable fertilization to take place in the presence of sperms. The hormones can be introduced into the body by various methods; these are emergency pills, injections, skin patches, transdermal gels, vaginal rings, IUD, and implantable rods.

On the basis of the types of hormonal method used, it can thicken the cervical mucus to prevent the descending of the eggs (ovulation) and by this, it prevents the sperm from reaching the fertilized eggs or the thin lining of the uterus. These are;

Implants: Small implantable rods which are matchstick-sized and are flexible and plastic in nature, with a failure rate of less than 0.5%. It is usually inserted by a doctor under the skin of the upper arm of a woman and releases progestin hormone only which is implanted for 5 years (US-FDA, 2015). Examples are Jadelle and Implanon.

Injectable: These are usually injections of progestin (Depo-Provera) which is administered on either the buttocks or arm for either one or every three months (National Center for Biotechnology Information (NCBI) (2010). The use of this method leads to a temporary loss of bone mass, especially in adolescents. But the adolescent can recover the bone density after she has stopped using the method. Women on this method are usually required to eat vitamin D and calcium-rich food or take in calcium and vitamins supplement to prevent the loss of bone density (NCBI, 2010).

Progestin-only pills (POPs): It is a hormonal pill which is taken daily at the same time interval to prevent pregnancy. It thickens the cervical mucus to make it impossible for the sperm to penetrate into the uterus or fallopian tube. It sometimes interferes with the normal menstrual cycle leading to irregularities in the menstrual flows or bleeding and does not cause an increased risk of blood clots.

Combined hormonal methods: They are combined with one approved progestin and synthetic estrogen, which thicken the mucus of the cervix to prevent ovulation. The mixed of estrogen and progestin are in the form of drugs like emergency pills, patches, and vaginal rings. It uses results in health effects like blood clots which are due to the presence of synthetic estrogen but are not observed in the use of a progestin-only hormonal method like injectables (US-FDA, 2015).

Oral contraceptives (the pill): It is a combination of progestin and synthetic estrogens, and is usually terms as the combined oral contraceptives (COCs) and works to prevent ovulation. It is taken one tablet (pill) each daily after/before sex at the same time interval to helps prevent pregnancy.

2.3.3 Barrier Methods

These methods provide an option to the hormonal methods and prevent sperms from getting into the uterus and can be self-remove after use. Depending on the type of method used, its failure rate ranges from 12% to 28% (Trussell, 2013). They include;

Male condoms: The male condoms are covering thin sheath of latex or polyurethane which are inserted into the erected penis during intercourse to collect the sperms and prevents it from entering the uterus. It offers dual protection by preventing pregnancy and reducing the risks of transmitting sexually transmitted infections (STI's). It is usually disposed of after a single use (Trussell, 2013).

Female condoms: They usually have two pouches and are thin flexible plastic. One is inserted into the vagina while the other covers the vaginal layers before sexual intercourse to blocks the sperms from entering the uterus. It also offers protection against STI's and after a single use, it is disposed of (Trussell *et al*, 2013).

Spermicidal: it is a chemical agent and is called nonoxynol-9 (N-9) which can be used alone or either in combination with a diaphragm or cervical cap to target and kill the sperm cells. Examples in its concentrated forms include foam tablet and Jelly cream. Before intercourse, it is inserted into the vagina close to the uterus for about 30minutes, and after the intercourse, it is left in the vagina for 6-8hours to kill the sperms cells to prevent pregnancy. However spermicidal does not prevent STI's but its use may result in allergic reactions and vaginitis (Hall & Rende, 2017).

Diaphragms: It is made up of latex or soft rubber with a shallow flexible cup which is inserted into the woman vagina before sexual intercourse to block the sperms from entering into the uterus. It is effectively used alongside with spermicidal or jelly cream and left in the vagina for 6-8hours after sexual intercourse to kill sperms cells and prevent pregnancy and must be removed within 24hours. It is usually inserted by a health worker after births for a period of 1or 2 years but not recommended for people who had pelvic surgery or those who experienced weight loss or gain of more than 15 pounds (Allen, 2007).

2.3.4 Emergency Contraceptives

Emergency contraceptives are used after having unprotected sexual intercourse or when the condom breaks or tears during sex. This includes emergency contraceptive pills.

Emergency contraceptive pills (ECPs): In the event of unprotected sexual intercourse, the emergency contraceptive pills such as Levon-2, Lydia, and Postinor-2 use which is hormonal, and are taken as a single dose or two doses after sex at the 12 hours interval. They thicken the cervical mucus to prevent sperm penetration and can inhibit ovulation for at least 5 days. The pill should be taken when one is exposed to the semen and does not want to become pregnant as soon as possible and should not be used as a regular method of contraception. It, however, does not prevent pregnancy if ovulation has already occurred or if the woman had unprotected intercourse within the same cycle period (Allen, 2007)

2.4 Knowledge of adolescents on contraceptive use

Having knowledge and a good understanding of contraceptives and their uses tended to be an essential step towards the overall acceptance towards initiating or using contraceptives during sex (Khan, Bradley, Fishel, & Mishra, 2006). Knowledge of contraceptives is generally poor, students are misinformed; thus making usage low even though they have positive attitudes regarding the use of contraceptives, they have the belief that it is especially not safe for female users though contraceptives are available making the use of contraceptives underutilized in Nagpur (Relwani et al., 2012). In a study conducted in Brazil, 72% of female adolescents were not sure of the importance of contraceptive use. However, 51% mentioned one type of contraceptive use (Mendes et al, 2011). Adolescents generally have little knowledge of contraceptives and their effective

use. During a research conducted in a rural-based South African University, the teenage participants stated the lack of knowledge on the use of contraceptives as one of the leading causes of teenage pregnancy (Lebese et al, 2015).

A study conducted in Poland found 81% of sexually active adolescents to have sufficient knowledge of contraceptives use, with similar proportions to have reported to have ever used contraceptives to protect themselves against pregnancy and sexually related infections, however, 9% were found to lack contraceptives knowledge on how contraceptives are effectively used in pregnancy prevention (Skrzeczowska *et al*, 2015).

Again, the same study found 85% of adolescents to have interest in the use of contraceptives and did not know where to get the methods and use indicating adolescents' contraceptives unmet needs are still global public and reproductive health challenges to adolescents contraceptives knowledge and use. With regards to adolescents sources of contraceptives knowledge; the study found 35% of adolescents to report internet as their main source of contraceptives information and 22% to have reported their peers as sources where they received information on contraceptives and the use of it (Skrzeczowska *et al*, 2015).

In a related study, they found 59% of adolescents to have adequate knowledge of their menstrual cycle regarding the length of their menstrual period, with about 77% to have correctly defined the number days of their menstrual periods and 49% to have correctly known the time of their ovulation period to be able to monitor when they are supposed to

have sex to avoid pregnancy. However, in a related study to the rhythm method, the adolescents were found to have difficulties in determining the cycle of their menstrual phases; for which 23% said their menstrual cycle is fixed, and 27% of adolescents reported that their menstrual cycle varies and 29% know their menstrual cycle.

The effectiveness of contraceptives methods was 43%, methods availability was 33% and easy way of administration of methods was 17% and these were considered as most important when making choices for contraceptives methods (Skrzeczowska *et al*, 2015). The most known common (72%) contraceptive method of adolescents was condom (male and female), and the knowledge of adolescents on modern contraceptives was 12% and traditional method like corpus interruptus (withdrawal method), and knowledge level among sexually active adolescents was 11%. In a study in Bangladesh found 50% hormonal contraceptives knowledge among adolescents, with IUD knowledge level to be about 21%, knowledge on condoms use as 21% and these were found as the most effectively used contraceptives methods.

In another study conducted in Poland on knowledge of contraceptive methods among adolescents and young adults, the study which comprised of 219 individuals reported that 81% of the adolescents had sufficient knowledge on contraceptives and 85% reported that they were interested in contraception. However, 9% mentioned that they lacked knowledge about contraceptives. In this study, the main sources of knowledge among adolescents in the study were the internet and peers as reported by 35% and 22% respectively (Skrzeczowska *et al*, 2015). In a related study conducted in the Llala

district of Dar e Salaam, 200 adolescents were sampled to determine the knowledge, attitude and practice on contraceptive. The study reported well to average knowledge of contraceptive among 75% of the adolescents. Also, in this study, female students had better knowledge of contraceptives compared to their male counterparts (Mugoyela & Kimaro, 2010). In other Africa countries like Nigeria, Uganda and Rwanda 40% of adolescents occasionally initiate sexual intercourse at a young age (Skrzeczowska *et al*, 2015).

In another study by Blanc *et al* (2014) in some Africa countries such as Zimbabwe, Kenya found an increased number of adolescents to have known of at least one contraceptive method. Contraceptives knowledge, however, was found to be lower in Madagascar and Nigeria and to have indicated fewer than half (50%) of adolescents to have known any contraceptives methods. There was a higher contraceptives knowledge level among adolescents in Kenya, Rwanda, and Zimbabwe about 90% of adolescents known of at least one contraceptive method. In countries like Asia, the Near East, and North Africa found adolescents contraceptives knowledge level to have exceeded 90% among sexually active adolescents. There was an exception to a similar study by the same author in Pakistan to constitute 67% and that of Yemen to be about 56% of adolescents to have adequate knowledge of contraceptives methods.

In Latin America, and the Caribbean about 90% of adolescents aged 15-19 years were found to have adequate knowledge of at least one contraceptive method, and in Bolivia

74% had adequate contraceptives knowledge, in Guatemala adolescents contraceptives knowledge was found as 68%, and Paraguay adolescents who were found to have adequate knowledge on contraceptives methods was 89% (Blanc *et al*, 2014) In a descriptive cross-sectional study to determine adolescents' knowledge, attitude and utilization of contraceptive in the Niger Delta of Nigeria, 200 adolescents were surveyed. The study reported a high level of knowledge on contraceptives among 86.5% of the adolescents. This high level of knowledge in this study may be due to the fact that most of the adolescents were students. However, the study reported a low level of utilization of contraceptives among adolescents in the study (Onasoga *et al* 2016).

In a cross-sectional study comprising of 400 senior secondary students in Ojo barracks, the multistage sampling method was used to determine contraceptive knowledge and practice among senior secondary school students. More than half of the respondents 67.5% in this study reported accurate knowledge of contraceptive though its utilization was poor as reported by 31.1% of the adolescents in the study (Chimah *et al*, 2016). Also, a recent study conducted in Nigeria used 896 adolescents reported a wide disparity in the knowledge and use of contraceptives among adolescents. Where knowledge on contraceptive was from 41.9% to 63.8%, that of use was from 0.7%-12.5% (Babatunde *et al.*, 2016) In a related cross-sectional study conducted in Ilorin, Nigeria, a semi-structured self-administered questionnaire was used to assess students' knowledge and use of contraceptives. The findings revealed that 27.8% of the adolescents had good knowledge of emergency contraception. However, the majority of the respondents 87.2% have never used an emergency contraception (Babatunde *et al.*, 2016).

According to a 2004 Youth Reproductive Health Survey using 12 – 19-year-olds, the researchers observed that at least 90% of the adolescents studied, most knew of one form of modern contraceptives (Clotey, 2012). In Ghana, a recent study on the use of contraceptives among adolescents in Kintampo reported a high level of knowledge on contraceptives among adolescents. The study comprised of 793 male and female adolescents. Specifically, 88.9% of the adolescents in the study had knowledge of at least one contraceptive method. The study further reported that knowledge of male condom was the commonest as reported by 84% of the adolescents (Boamah et al., 2014).

2.5 Contraceptive use among adolescents

Sexual initiation age of every woman either within or outside marital union symbolizes the beginning point of her risk exposure to pregnancy and childbearing that is according to Blanc et al (2014) which equally necessitated contraceptives demand and use among women, and especially sexually active adolescents (Blanc *et al*, 2014). There are reported implications of health outcome of adolescents to have a significant relationship to the fertility age of childbearing, and an increased health risks which are related to adolescents pregnancy, and are found to include complications of unsafe abortion, and maternal complications and death and to add consequences of higher educational attainment and lower economic class of the family. Adolescents sexual activity from Blanc *et al* (2014) study has been reported to be irregular among the unmarried adolescents as to that of married adolescents, with which the unmarried adolescent's sexual practices and

pregnancies were unwanted, and have severe consequences on their future sex life and reproductive health (Blanc *et al*, 2014).

Sokkary *et al* (2013) study in the United States found 40% of sexually active adolescents to have had sexual intercourse of not more than once, and 90% were found to be at risk of pregnancy due to the fact that, they were found to have not used any form of contraception and also report lack knowledge on modern contraceptives methods to aid in the prevention of pregnancies among the sexually active (Sokkary *et al*, 2013). The Pregnancy Risk Assessment Monitoring System (PRAMS) investigated contraceptive experiences among adolescents. The study sampled 9779 females from 11 to 17 years. About 48% of adolescents with unintended birth and 30% of those with intended birth use contraception (Coles, Makino, & Stanwood, 2011).

A study conducted in Nicaragua on contraceptive use among adolescents living in poor neighborhoods showed a high level of contraceptive usage. This cross-sectional study comprised 2803 adolescents, 43% of boys and 54% of girls reported contraceptive use. The study also reported an association between age, male sex, alcohol consumption, living with parents and contraceptive usage (Decat *et al.*, 2015). In order to determine the knowledge, attitude, and practices about contraception among teenagers in two schools in Eastern Cape, a qualitative study was conducted comprising of 7 students. The study used in-depth and focus group interviews. The study reported a relatively limited level of knowledge on contraceptives among respondents and utilization was also very low (O'Mahony, Yogeswaran, & Wright, 2013).

In Kenya, the operations research project and population council investigated the levels, trends, and determinants of contraceptive use among adolescents. They reported that less than 40% of adolescents who have ever had sex have ever used a method for family planning. They also reported a slight increase in the use of modern contraceptives from 10% in 1998 to 11% in 2003 and 14% in 2009 (Obare et al., 2011). Kenyan high school students knew at least one method, 49% of male and 42% of a female student ever used contraceptive. The same study has also shown an increase in contraceptive use from 25% versus 28% during the first to 31% versus 29% during the last intercourse among male and female students respectively, however only 11% of ever users considered themselves as frequent users (Ikamari & Towett, 2007).

In a study to determine peer-driven contraceptive choices and preferences for contraceptive methods among adolescents in Nigeria, authors used 313 unmarried adolescents. About 45.2% of male adolescents and 21.7% of female adolescents reported usage of contraceptives in this study (Iyoke et al., 2014). A similar study in Nigeria has revealed that over 60% of urban adolescent have heard of at least one method but only 4.7% of sexually active adolescents practice contraceptives of which 3.5% of them practice modern methods (Bankole & Malarcher, 2010).

A research by Oindo in Kisumu Kenya showed that the majority (73.5%) of adolescents are sexually experienced with the level of contraceptive use at 57.5% (Oindo, 2002). The results of a research done by Ikamara in Kenya showed that the majority (62%) of

Kenyan adolescents are sexually experienced. The mean age at first sex was 16.2 years (Ikamari & Towett, 2007). The ever use of contraception among the sexually experienced adolescent was (46.9%) with 37.7% reporting ever use of modern contraceptives. Current use of contraceptives among the adolescents was however low at 21.5% with 9.2 percent on injection, 3.8% on the pill and 2.8% on condoms (Ikamari & Towett, 2007).

Similarly, a Tanzanian study comprising 200 adolescents reported a low utilization of contraceptive among adolescents. Whereas knowledge of contraceptive was high among adolescents in this study, only 34% reported utilizing contraceptives (Mugoyela & Kimaro, 2010). In a related study conducted in Tanzania using a cross-sectional study design to determine the knowledge, attitude, and practices on contraceptives among adolescents. About 316 adolescents were randomly surveyed. The study reported that two-thirds 67.4% of the respondents had adequate knowledge of contraceptives (Dangat & Njau, 2013).

A recent study in Ghana used systematic sampling to interview 110 adolescents on contraceptive use. The study reported 38% usage of contraceptive among the adolescents with condom use by males as the commonest method as reported by 73.9% of them. Reasons given for usage were easy to access, safety and dual protection (Kareem & Samba, 2016). In another study using the Ghana Demographic Health Survey (2014) data to determine the prevalence and correlates of contraceptive usage. Out of a total 1037 adolescents, 9.2% of those who were 15-17 years use contraceptives while 3.14% of those 18-19 years. Contraceptive usage was more prevalent in urban residence 21.0%

compared with rural residence 16.3% (Nyarko, 2015). Another study using the same dataset but restricted to only sexually active female adolescents of aged between 15-19 years reported similar findings. About 35% of the 162 sexually active female adolescents in the study used contraceptives. The study did not find any sexually active female adolescent in the Northern region and those with no education to have ever used any contraceptive (Marrone et al, 2014).

In a cross-sectional study using quantitative and qualitative techniques to survey 793 adolescents aged 15-19 years in Kintampo, contraceptive usage was 22.9%. They reported a significant association between discussing contraceptive use among partners and contraceptive use (Boamah et al., 2014). In confirmation with this study among adolescent aged 15-19 in Ghana revealed that 85% knows at least one modern method of contraception while only 11% of sexually active adolescent used modern contraceptives, the rate for any methods were 27% (UNFPA, 2013). Most of the adolescents' girls in Murigi *et al* (2016) were found to initiate sex at the age of 15 years, with only 43% to have been reported to be contraceptive users. Older adolescents of about 18 years were more likely to have ever used contraceptives than those who are the younger age of 15 years (Murigi *et al*, 2016). Contraceptives knowledge was found to increase with age of the adolescents and were statistically significant, and same was found in relation to contraceptives accessibility to be significantly associated with adolescents contraceptives use (Murigi *et al*, 2016).

In Lim *et al* (2015) study, only 28% of adolescents were currently using modern contraceptives, and condoms (40%) was most common when compared with the traditional methods, and 3% have ever used Long Acting Reversible Contraceptives (LARCs) (Lim *et al*, 2015). Other contraceptives used prevalence was found to include emergency contraception (21%), and withdrawal method/corpus interruptus (20%) (Lim *et al*, 2015). Another study by Tamang *et al* (2017) equally reported condoms to be the most commonly used contraceptive method among sexually active adolescents, with 66% to have used modern contraceptives methods, female condom 39%, injectables was 28% and oral contraceptive pills used was 8% (Tamang *et al*, 2017).

2.6. Identified reasons affecting the modern contraceptive use

2.6.1 Attitude and Perception of Adolescents Towards the Contraceptive use

Good health practices such as the healthy diet, screening, condom, and other contraceptives usage are greatly influenced by the attitudes (Cole & Holtgrave, 2002). Perception, as defined by the Oxford Dictionary is seen as “the way in which something is regarded, understood or interpreted” (*Oxford Dictionary*, 1999:1049). An individual is to make subjective and personal inferences as well as making meaning of the world or environment within which the individual lives through perception. Perception is largely guided by knowledge (de Jong & Ferguson-Hessler, 1996).

Perceptions about contraceptive use are influenced by information adolescents receive from the family, school and the media (Michelle C. Kegler, Cam Escoffery Iris C.

AlcantaraJohanna HinmanAnn, 2012). However, a lot of sexually-related information has been found to be inaccurate, ambiguous and sometimes misleading; this has a negative impact on sexual behavior (Undie, Crichton, And, & Zulu, 2008). In addition, there is no clear guidance on the method or language to use when discussing sexuality issues with adolescents, leaving messages Passed, to individual interpretations (Izugbara, 2018).

In Australia, to determine contraception knowledge and attitude among teenage mothers, a qualitative study using cultural competency and phenomenology was conducted. Sixteen migrant teenagers were sampled for the in-depth interview. The study reported low knowledge of contraceptives among teenagers and poor attitude towards contraceptives (Watts et al, 2014).

In southern Ethiopia, knowledge, attitude, and practice of contraceptive use among females were investigated using 263 female students in Dilla secondary and preparatory school. The study reported that despite the observed high knowledge of contraceptives among adolescents 94.7% in the study attitude and practice was low (Katama & Hibstu, 2016).

A study examined the attitude of students towards contraceptive use, the authors found a significant difference in the knowledge of contraceptives and the attitude adolescents tend to exhibit towards the actual use of contraceptives; the results showed that it was rather their attitude that influences the knowledge they acquire towards the use of contraceptives (Izugbara, 2018). Adolescents in recent times perceive that engaging themselves in sexual activities is the “In thing”, meaning it is in trend with modernization

and also perceive that having a relationship devoid of sex was not possible (Okereke, 2007). Most adolescents are of the view that sex before marriage should not be practiced, however, it is quite intriguing to know they practice the contrary; in a study conducted by Awusabo-Asare, et al., (2006) the outcome was that 87% and 84% of females and males respectively who held this notion that females should remain virgins prior to marriage, were themselves sexually active. Religious beliefs also make it quite difficult for the adolescent to boldly request for the use of contraceptives or seek education from health care provider (Okereke, 2007).

2.6.2 Barriers and enablers of access to contraceptive

Recent years have been marked by increased social change that makes information about sexual reproductive health readily available through mass media; this information may make engagement in sexual activities seem okay hence leading to increased adolescent pregnancy (UNFPA, 2013). Although some adults may find the idea disturbing, the reality now is that many adolescents have sexual relations before they are ready for marriage and families. This gap between adult attitudes and adolescent realities is a recipe for early pregnancy. Compounding all the problems associated with the early experience of first sexual intercourse before marriage is the low level of contraceptive use amongst adolescents (Ki et al., 2013). Reasons for non-use of contraception among adolescents include; lack of access to contraceptive services, age at the time of initiation of sexual activity, having a sexual partner, personal or religious beliefs, inadequate knowledge about the risks of pregnancy following unprotected sexual relations, limited

decision-making ability with regard to sexual relations and contraceptive use, incest, and rape (Greenberg, D, Makino, Coles, & H, 2013).

In instances where knowledge on contraception as well as the availability or access to services readily abounds, there exist some contextual factors that have been established to influence decision making on contraceptive usage. Partner communication, which in almost all adolescent settings is non-existent or scarce, is a major contextual factor that influences contraceptive use (Lloyd & Gale, 2005).

Contraception use has been tagged by many adolescents as a matter for married adults who intend spacing birth. Other adolescents do not support contraceptive usage due to the notion that it promotes promiscuity. It has also been found that persons who have older partners, as well as those who are engaged in unwanted or forced intercourse, are unable to negotiate contraceptive use (Greenberg et al, 2013). Nzioka (2011) noted in a study that the social and sexual function of the adolescents, as well as the cultural context which encapsulates her sexual activity to the point of condemnation, was key. To him, girls who plan for sex and those having the attitude that planning for sex spoils does not thwart sexual activity but have been known to inhibit contraceptive use thereby exposing adolescent girls to unwanted pregnancies (Nzioka, 2011).

The social and psychological effects of unplanned pregnancies have a greater likelihood for unmarried adolescents compared to their married counterparts. However; there are numerous reasons accounting for the relatively unsuccessful efforts geared towards

avoiding unwanted pregnancies among unmarried adolescent. The dominant reasons include sexuality is considered a taboo subject in most societies, adolescents having little knowledge about contraception or basic facts of conception (Moore et al., 2008). Another reason alluded to was the impulsive nature of adolescents which makes them less likely to plan and as such predisposes sexual intercourse and resultant pregnancy to being unexpected. This, therefore, makes contraceptive usage less likely.

Furthermore societal sanctions against premarital sexual activities and childbearing as has been reflected by providers' negative attitude and hostile reception or refusal to supply contraceptives for unmarried restrict adolescent from requesting use (Apter, 2012). A research by Ikamari on sexual initiation and contraceptive use among adolescent females in Kenya showed that the use of contraceptives and sexual initiation increased with the adolescent's age (Ikamari & Towett, 2007). The older the girl at the time of initiation of sexual activity, the more likely she is to use contraception regularly and use a modern method. Younger girls are likely not to use or use them ineffectively. They rely on the male partner's decision (Oindo, 2002). In the process of becoming adults, adolescents constantly analyze the world around them, testing the boundaries of what is possible. This can result in risk-taking behavior. Adolescents may, for example, perceive the risk of pregnancy as low, and may, therefore, use an ineffective contraception method or none at all, or use a method incorrectly (Apter, 2012).

Adolescents have inaccurate or incomplete information about sexuality, reproduction, and contraception (Bankole & Malarcher, 2010). A study in Uganda found that two in three females did not know that condoms should be used only once (Bankole, 2007) and a study in Ethiopia showed that although nearly all adolescents knew that unprotected sex could result in HIV infection, less than half realized it could also result in pregnancy (Bankole & Malarcher, 2010).

Unplanned pregnancies among adolescents happen despite the best of contraceptive intentions. The effectiveness of adolescent pregnancy prevention programs remains below desired levels (Gomes, 2008). Adolescents' success in avoiding pregnancy often depends on having access to contraceptive information, methods, and services (Gomes, 2008). According to research in Nigeria adolescents are more likely to be sexually active if their peers are sexually active. Myths around contraception can have a large bearing on whether and how adolescents seek contraceptive services (Wanjiru & Bscn, 2012). A study conducted among adolescents in Nigeria revealed that the myth that contraception caused infertility motivated seeking abortion services rather than contraceptive services (Stuart & Grimes, 2009).

In South Africa, 23% of the adolescent pregnancy is caused by girls seeking to prove their fertility. This perception encourages adolescents to engage in unprotected sexual intercourse and avoid using contraceptives so as to prove their fertility (Stuart & Grimes, 2009). A research in Pittsburg showed that religion was not significantly associated with contraceptive use at last intercourse or planned contraceptive use (Lancaster et al., 2010).

In other researches, religion has been found to influence adolescent's contraception and sexual activity with some researches showing religion to be associated with less use of condoms and or hormonal methods (Sam & Marcelli, 2003).

Societal perceptions of contraception have a great influence on adolescents, for example, the perception that contraception should only be used by married couples who want to space out pregnancies. Others believe that exposure to contraceptive information encourages women to promiscuity. These social attitudes may condemn adolescents for seeking such information before marriage (Allan Guttmacher Institute, 2002). In a study done by World Bank, when a girl has the power to delay pregnancy, she is also empowered socially to stay in school, and then economically to secure a more lucrative job or pursue other income-earning opportunities (Chaaban & Cunningham, 2011). A research by Ikamaara and Towett on sexual initiation and contraceptive use among adolescent females in Kenya showed economic status was significantly associated with the use of contraception. Those in poor households were less likely to use since they could not afford the contraceptives (Ikamari & Towett, 2007).

Again, in a qualitative study conducted by Ochako *et al* (2015) in Kenya found adolescents non-use of contraceptives to be associated with promiscuity and straying because people have the perceptions that women use of contraceptives make them promiscuous. Another reasons for adolescents non-use was fear of side effects and was reported as the strongest factors that influenced adolescents contraceptives to use (Ochako *et al*, 2015). In addition, adolescents fear of infertility was found to be a strong

predictor to adolescents contraceptives non-use, and as well as the fear of side effects leading to weight changes, bleeding, and lack of sexual desire as reported among adolescents and the experience of headaches and perceived blood pressure problems (Ochako *et al*, 2015).

Blackstone *et al* (2017) study in Ghana found men social network to have significantly influenced women or adolescents contraceptives uptake (Blackstone *et al*, 2017). Factors that were found to have negatively influenced on non-use of contraceptives among adolescents were found by Blackstone *et al* (2017) to include contraceptives misconceptions of side-effects, male partner disapproval, and social/cultural norms surrounding fertility, and among factors that positively influenced adolescents contraceptives use were education, employment, and communication with the male partner.

According to Murigi *et al* (2016) factors that affect adolescents' contraceptives use were found to include age, accessibility, and perception of contraception and knowledge on contraceptives.

In Lim *et al*, (2015) study, adolescents knowledge of contraceptives was found to correlate with contraceptives knowledge and having experienced physical or sexual violence were reported to deter them from using contraceptives, other adolescents were found not to have used condoms and the reason cited was partner disapproval, lack of information on where to access the methods such as both modern and traditional

methods, regular alcohol use, and having poorer Sexual Reproductive Health (SRH) knowledge (Lim *et al*, 2015)

CHAPTER THREE

METHODOLOGY

3.1 Study design

The study adopted a phenomenological design with a qualitative approach to data collection. Qualitative research approach was deemed appropriate in gaining deeper insight into knowledge and perceptions about the uptake of contraceptives from the perspectives of adolescents in James Town, Phenomenology, on the other hand, allowed participants to share their perceptions, feelings, and lived experiences in the community and how these experiences may have affected their perspectives about a given situation (in this case use of contraceptives). In order to obtain both individual and group opinions on contraceptive use among adolescents, the study used both in-depth interview and focus group discussions.

3.2 Study area

The study was conducted in James Town in the Ashiedu Keteke sub-metro of Accra which has a population of 92,312 inhabitants (GSS, 2010). James Town is located directly to the east of the Korle Lagoon, it is one of the oldest communities in the Ashiedu Keteke sub-metro. The sub-metro has the lowest concentration of health facilities in the Accra metropolis. The natives are mainly fisherman and fishmongers due to them being closer to the sea. Anecdotal evidence shows that most of the inhabitants are semi-literates and few literate. The area also has high rates of teenage pregnancy compared to other sub-metros in the region.

3.3 Study Population

The study population consisted of all sexually active female adolescents aged 12 to 19 years living in James Town.

3.3.1 Inclusion Criteria

The following inclusion criteria were used to select participants into the study:

1. Sexually active female adolescents between the ages of 12 and 19 who have lived within James Town for one year or more, and consented to participate in the study.
2. The participant should have lived in the study area for at least one year or more.
3. Participants who can speak English, Twi and Ga were included in the study.

3.3.2 Exclusion Criteria

The following exclusion criterion was considered when selecting the participant

1. Female adolescents, who have had a hysterectomy, were excluded from the study. The reason for excluding adolescent who had had a hysterectomy from the study was that such adolescents will not be using contraceptives because of the surgery.
2. Ages 10 and 11 were excluded because most of them are naive about sexual activity and very few have ever had sex.

3.4 Selection of Participants

Selection of Enumeration Areas (EAs) for the FGDs and IDI were done taking into consideration the classification of the EAs by the Ghana Statistical Survey (GSS) from the sub-metro. A simple random sampling was done to select four EAs. In each of the selected communities, two focus group discussion and In-depth interview were conducted. Participants ages 12 to 19 were purposively selected for the discussions, those below 18years, with the help of a local NGO staff who works closely with adolescents groups in the community, parents of potential respondents were identified and approached for consent. The researcher booked an appointment with parents of participants who met the inclusion criteria.

The purpose of the study was explicitly explained to parents for them to understand and all their concerns were fully addressed. Some parents were not aware of their Child's sexual experiences; the researcher tactfully explained the situation to such parents and why it was important for their child to be part of the study. Such parents were assured that their daughter will be counselled on various aspect of teenage sexual experience before and after the study. A total of 73 adolescents were organized for the Focus Group discussions. Participation was solely on a voluntary basis.

A total of eight focus group discussions (FGDs) and eight In-depth interviews were held to collect the qualitative data from the selected EAs in James Town. Each of the eight (8) FGDs was held between the hours of 4 pm to 6 pm. Only one FGD was held each day.

On average, each FGD was made up of 7-10 participants and lasted for about one hour to one-half hours. The FGDs were supported by in-depth interviews. One in-depth interview was conducted after each FGD. This was done to ensure that rich and sensitive information required understanding the research problem was not lost. The in-depth interview was conducted to distinguish between individual opinions from that of groups. The in-depth interview provided a more relaxed atmosphere for the teenagers to express themselves, this was absent in the FGDs. The in-depth interview was conducted using an interview guide.

3.5 Data Collection Tools

A semi-structured FGD and in-depth interview guide were used to collect data for the study. Where appropriate, the discussion was conducted in English, Twi, and Ga. The FGD guide covered areas such as knowledge on contraception, contraceptive use, reasons for contraceptive use (barriers, cultural and religious), choice of contraceptive service providers. One research Assistant moderated the FGD sessions while the Principal Investigator (PI) recorded notes of important issues that were raised during the discussion. An audio recorder was used to record each of the discussion sessions. During the discussion, each participant was given the opportunity to contribute to a topic before proceeding to another theme. Data collection was done in the local languages (Ga, and Twi) and first transcribed into English by two independent people. The translations were compared for consistency. Inconsistencies were discussed by the translators with a third person serving as a mediator.

3.6 Data management

The researcher listened to the recorded interview several times and did a verbatim transcription. A comparison between the researcher's transcript and another transcriber was done to reduce subjectivity in the transcription.

3.7 Data Analysis

The final transcription in Microsoft Word was loaded into NVivo 11 to identify codes and nodes. Themes were then generated based on those with strong similarities in context. Thematic analysis was employed in analysing the data. Thematic data analysis process consists of three interrelated stages namely data reduction, data display, and data conclusion-drawing/verifying (Miles & Huberman, 1994). Thematic analysis was done in six phases to establish meaningful patterns. These phases included familiarization with data, generating initial codes, searching for themes among codes, reviewing themes, defining and naming themes and writing final themes.

3.8 Quality Control

The following quality control measures were done to ensure accuracy and reliability:

- To ensure the questions were clear, understandable and to prevent ambiguities and irregularities the discussion guide was designed in English and translated into Ga, and Twi by language experts using a back translation strategy. In this strategy, a language expert proficient in English and the local language were made to first translate the interview guide from the English language to the local language. Another language expert was then made to retranslate the guide from the local

language back to English and the two versions compared. Where there are differing views, it was discussed by the two language experts with a third language expert as a mediator. This was done as a quality control measure to ensure uniformity in the data collection tools

- Field Assistants were trained by the investigator to ensure they understood their tasks. Environment and adequate time were allocated for hands-on demonstrations such as role-plays. During the training, the research assistants were introduced to the rationale of the study, the selection of eligible participants for the study. They were also taken through the whole focus group discussion, in-depth interview and their concerns addressed. Techniques for introducing themselves and establishing rapport to get good responses from participants was explained to the full understanding of each Research Assistant. All the above were done to ensure credibility, conformability, and transferability with the aim of achieving methodological rigour.
- Pretesting of interview guide was done in a Focus Group Discussion and an in-depth interview conducted at Korle-Gonno, a nearby community within the Accra Metropolis. This enabled all items on the guide to be thoroughly checked for errors and inconsistencies.

3.9 Ethical Consideration

The following ethical issues were considered in this study

- The study was approved by the Institutional Review Board of Noguchi Memorial Institute for Medical Research (NMIMR) before the commencement of the study (Appendix III).
- Permission was sought from the metropolitan assembly and chief of James Town. Consent and assent were sought from all participants and their guardians. They were assured of their privacy and confidentiality. Participants were told they have the right to opt out of the study at any time without any penalty.
- For security and safety, gathered data (soft copies were saved on a hard drive with a password) while hard copies were kept in a locked cupboard with access to only the principal investigator (PI) and the study team. Recordings of interviews will be destroyed after 5 years when the PI has finished and disseminated the results and all necessary actions taken by then. Although participants were not to be compensated or paid for participating in the research, their inputs were recognized and appreciated.
- Participants were made to understand that they will benefit from this study if findings are formulated into policies that could benefit them both directly and indirectly.
- For focus group, discussions schnapps was sent to the chief palace as part of the tradition of the area to announce our presence and as part of community entry requirements. The PI had no conflict of interest whatsoever in this study. It was purely for academic purpose.
- For qualitative data, participants were interviewed at a designated location of their choice which was convenient for all. A maximum of one hour and 30 minutes was

spent on each FGD. Participants were made aware that they have the right to answer or ignore sensitive questions. Sensitive questions were however asked in a way that minimized such discomfort as research assistants were properly trained on that. FGDs were conducted in the local languages (Twi, and Ga).

CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter presents the results of the study, which sought to explore factors affecting sexually active female adolescent contraceptive use in James Town. The study adopted a qualitative approach with the use of in-depth interviews and focus group discussion among sexually active female adolescents aged 12-19 years. A total of about 73 female adolescents were involved in the discussion and the in-depth interviews.

4.1 Socio-demographic characteristics of the participant

Table 4.1 summarize the socio-demographic characteristics of participants involved in the study. The mean age of the participants was 15.8 ± 2.3 years. The youngest participant was 12 years old and the oldest was 19 years. Also, 20.5% of study participants were drop-out of school, 19.2% had primary education, JHS 34.2%, and SHS were 26.1%. Again, 63% of participants were students, 19.2% had involved in trading and 17.8% were engaged in apprenticeship. More than half (84.9%) of participants were Christians and 15.1% were Muslims.

Table 1: Socio-demographic characteristics of respondents

Variable	Frequency	(N = 73)	Percentage	(%)
Age of adolescents				
Mean age (15.8±2.3years)				
12	6		8.2	
13	7		9.6	
14	11		15.1	
15	9		12.3	
16	8		11.0	
17	10		13.7	
18	9		12.3	
19	13		17.8	
Educational level				
Drop-out	15		20.5	
Primary	14		19.2	
JHS	25		34.2	
SHS	19		26.1	
Occupational level				
Apprentice	13		17.8	
Trading	14		19.2	
Students	46		63.0	
Religion of participants				
Christian	62		84.9	
Muslim	11		15.1	

4.2 Knowledge on Contraceptives among female adolescents

4.2.1 Awareness on contraceptives

From the discussion, many of the female adolescents knew about contraceptives. Some female adolescents understood contraceptives as methods or drugs given to a woman to plan her pregnancy and or to prevent unwanted pregnancy, and sexually transmitted diseases. In the in-depth interview, a female adolescent also reported contraceptives as methods used to prevent one from been infected with the sexually transmitted diseases

(STD's) and other STIs, and these were mentioned to include; HIV/AIDS, gonorrhoea, syphilis and among others. Contraceptives were understood as a means of preventing teenage pregnancy and to satisfy the sexual desire of a partner. These quotes illustrate adolescents view about contraception.

My understanding of contraceptives, if you want to have sex but do not want to get pregnant so to avoid pregnancy, you use the contraceptives or maybe you are addicted to sex and do not want to be taking the pills all the time after sex so you will inject the family planning so that you can enjoy sex without any problems.
[18-year-old female adolescent FGD]

If you have so many children and do not want more, you can go in for Family planning. **[15-year-old female adolescent IDI]**

They are things done by couples to space out their children so that they are able to take very good care of their children.
[14-year-old female adolescent FGD]

Contraceptives are meant for a student who is not ready for the birth but is being disturbed by a man, for her to have sex, she can inject family planning so that she can further her education.
[14-year-old female adolescent IDI]

Me, I have done family planning before. The reason I did it was because I gave birth at a time when I had not planned to give birth, I was learning how to sew and I do not want abortion, and so I went in for the 3 months injection, and after I gave birth and it has expired I took the 3 years injection which I am on now and it is good for me. **[19-year-old female adolescent FGD]**

4.2.2 Contraceptive methods identified

Evidence from both FGD's and IDI's indicated that adolescence also knew about contraceptive methods. The following methods were mentioned by adolescents, and they include; condoms, IUD, Injection, emergency contraceptive pills (Levon-2, Postinor-2, and Lydia contraceptives), Implants, and menstrual calendar.

I personally do not know the methods that are used in delaying pregnancy, but I know of the use of contraceptives such as the pills which can be taken within 72 hours after sex to kill the sperms, but if the sperms are so strong, it can still form a baby.
[15-year-old female adolescent IDI]

There is one that you can insert and one that we can wear in the vagina entrance to the womb and others are injection and the 'secure' which is a pill. **[16-year-old female adolescent FGD]**

For me, I inserted the 5years method (Implant), and then the 3 years method. **[19-year-old female adolescent IDI]**

Almost all female adolescents from the discussion were able to identify and recognize condoms, and other contraceptive methods like Pills, IUD, implants, and injection.

Male Condoms are rubber-like and are of two kinds and are looking just like a penis, and they include male and female condoms **[17-year-old female adolescent IDI]**

IUD is inserted into the womb so when you are ready and want to give birth, then you go and remove it, and the implant is inserted into the body for a number of years and when you are ready to

give birth, you stop inserting. [19-year-old female adolescent FGD]

4.2.3 Advantages and disadvantages of contraceptives

Adolescents“ were also knowledgeable about the advantages and disadvantages of contraceptives. The following advantages outlined by sexually active adolescents include prevention of sexually transmitted diseases (STDs), reduction of the number of street children, prevention of unplanned pregnancy, and the possibility of enjoying sex without the risk of pregnancy. Again, it was also discussed to include helping one to decide on the number of children he or she wants, preventing abortion and associated problems, reducing crime rate such as armed robbery and prostitution among girls. Other advantages noted were helping increase families“ saving rates and enabling families to invest more monies into the future, helping in child spacing to give parents the opportunity to take good care of their children, aiding woman to concentrate fully on her work, allowing woman continue her education, and as well helping improve the health of adolescent girls.

On the contrary, the disadvantages of contraceptives were discussed by adolescents to include; possibility of condoms breaks which could result in pregnancy and sexually transmitted infections, insertion of implants causing pains, bareness with the use of some methods as perceived by some adolescents such as implants and injectable, promotion of pre-marital sex, development of fibroid as perceived by some, causes stretch marks due to unusual growth/weight gain which can lead to death, and menstruation irregularities. In additions, other contraceptives disadvantages mentioned were found to include a

headache through the use of emergency pills, dizziness associated with implant use, and feeling of pains in the private part with IUD insertion.

For me, I have ever taken the 3-months injections, and it affects my menstrual cycle; my menses does not flow normally for 5 days but it was due to the family planning, my menses can just come for 2 days. [17-year- old female adolescent IDI]

In terms of how effective the contraceptive methods they had ever used, many of the adolescents indicated the use of injectable because it can easily be taken at the hospital. Also, emergency contraceptive pills such as Lydia, Levon-2, postinor-2, the male condom, and IUD were cited to be effective, affordable and easily accessible

Hmmm I think injection because it protects you from giving birth and makes you abstain from childbirth [17-year-old female adolescent]

I also think the IUD is most powerful because it has no effects [19-year-old female adolescent FGD]

The condom is the most effective because it is more affordable and accessible as compared with the others. It saves you the troubles of going to the pharmacy to buy and the rest. [15-year-old adolescent FGD]

Among participants, the side effects of family planning reported were; inability to have free menstrual flows/menstruate irregularities and weight loss making them grow lean and slim. Other problems reported among adolescents were found to include tingling and numbness of fingers as well as feeling dizziness and weak with regards to the use of implants and injections.

But the problem the family planning thing gave me was two weeks menstruation, my fingers also freezes (numbness) and after every menstrual period I have taken medicine else I will be feeling dizzy. This made me stop using it [18-year-old female adolescents IDI

4.2.4 Traditional Contraceptive Methods

Also, with regards to female adolescents' knowledge of traditional contraceptive methods or local ways female adolescents prevent pregnancy, it was fascinating during the discussion to find some female adolescents to have reported using "local herbal medicine call „ödido"" as concoction and the "mixture of Guinness and sugar" in an attempt to prevent pregnancy or to dislodge the fetus. Again, from the in-depth interviews some reported to have used "a mixture of hard liquor like local gin and Fanta and add a lot of sugar", energy-drink like „Rush" and "tomatoes mixed with Fanta drink and a lot of sugar" in an attempt to prevent themselves from becoming pregnant at an early age because they mostly do not want the pregnancy or the pregnancy is unplanned.

4.2.5 Sources of information on contraceptives

Some adolescents through the in-depth interviews reported having obtained information on their preferred choices of contraceptives from TV commercials, radio advertisements, newspapers, and magazines, in schools, from friends, and from health professionals.

I heard the family planning thing from the radio and television advertisement and also from friends” [17- year -old adolescent IDI]

For me I learnt it at school and from my friends [16-year-old adolescent FGD]

4.3 Contraceptive use among female adolescents

Adolescents’ contraceptive use during the discussion was found to have been due to their awareness of contraceptives. Some participants of the Focus Group Discussion indicated to have ever used, whereas some are currently using and some have never used contraceptives. From the in-depth interviews, two adolescents were found to have reported of ever using contraceptives and a few reported not to have ever used contraceptives. Also, from the in-depth interviews adolescents’ knowledge on the use of injectable was reported to involve one month and three months injections and also five years implant, and that they are accessible to women and adolescents to prevent unplanned pregnancy. Intra-Uterine Devices (IUD) was cited during the discussion as a method that is inserted into the womb of a woman and could prevent pregnancy for up to ten years. An 18years adolescent reported,

I have one child already and because of this, I am not ready for another child and so I went for the family planning. [18years old female adolescent during IDI]

4.3.1 Sources of Contraceptives

From the discussion many female adolescents knew the sources of contraceptives and stated that they could be obtained from pharmacies, drug stores/chemical shops, through traditional medicine sellers locally called “*Shikpon tsofa tsemei*”, mobile vendors, friends, polyclinics, health centres, hospital, child welfare clinic (CWC), and through local hide-outs such as „London market“, and at the beaches In spite of these, there were reported negative experiences among adolescents who break all odds in their quest to access contraceptives.

*For me, it is not easy accessing contraceptives at pharmacies, they ask too many questions, and sometimes threaten to tell your parents if they knew them and so we always decided to go to a local hide-out call London market because over there if you want condoms, people will not see you and be asking you questions.
[16-year- old female adolescent during IDI]*

4.4. Reasons affecting contraceptive use among female adolescents

The reasons mentioned for using contraceptives that were identified during the discussion were Peer and family influenced, health facility and provider-related factors and religion and culture.

4.4.1 Peer and family influence

Female adolescents’ uptake of contraceptives was found to be associated with their desire to either give birth or not, and this gives them the motivations to use contraceptives. Also, peer pressure from friends and family to give birth was also reported to compel them not to use contraceptives. Again, parents who are willing to take care of the children of their

adolescent girls will always motivate the adolescents to prefer to give birth than using contraceptives to prevent pregnancy, and as well as when the partner is in support.

Also, from the in-depth interviews it was reported among adolescents that their parents encourage them to have sex outside because a JHS 2 girl said; for example,

You want something and tell your mummy, and she will turn and shout at you and said I don't have, you are of age and so you can go to your boyfriend such stuff, and this sometimes compels us the adolescents to sleep with men for money. [16-year old adolescents IDI]

It was also realised that a number of the adolescents stop using the contraceptives due to the side effect they experienced while using it during the focus group discussions.

But the problems they gave me were the one-week menstruation thing, my fingers also freeze sometimes and after every menstrual period, I have to take medicines else I will be feeling dizzy lots of the times. This made me stop using it. [18-year -old female adolescents FGD]

4.4.2 Health facility/Provider-related factors

From the discussions, some participants said they do not go to the pharmacies because they fear being insulted. As such, they had to visit the local hide-out markets (London market), maternity Clinics, homes, provision or toffee shops, tea sellers, and beer bars, and some reported to always purchased condoms mostly at chemical shops. Some adolescents also from the interviews said they used contraceptives because they want to

prevent unplanned pregnancy, to enable them to enjoy the pleasure of sex because they cannot abstain from sex, and as well as avoid the problem of taking care of family and peer pressure.

With regards to factors that serve as barriers to adolescents accessing contraceptives were reported among to include; stereotyping of teenage clients as „perverts“, the high cost of contraceptives, low income/lack of money, embarrassing experiences at service access point, lack of knowledge/sex education and discomfort with contraceptives side effect.

Again, negative attitude of health workers of not being friendly to adolescents was found as reasons that make adolescents fear, and at the time some of the health workers ask too many questions as these were reported during the focus group discussion. In addition, some of the health workers when you go to them, they present an intimidating posture and before they will give the condoms or injections they will ask you of husband and if you say that you do not have a husband they drive you away without giving the contraceptives. The health workers always shout at us when people are around and for the people to know the reason why you (adolescent) came to the facility.

One time, I had the chance to go buy a pill from the pharmacy, and with a friend and the pharmacist asked a lot of questions like " are you the one going to use?" and the others around heard it which was not good.[17-years-old female adolescent IDI]

At the hospital, they ask you of your age and if you go there without your husband they'll send you away because, the last time someone's husband went to insult the doctor/nurse for doing

family planning for the wife without the husband knowledge... so at that particular place I know they won't do it for you if you are unaccompanied by your husband. [15- years-old female adolescent FGD]

Also, among other factors that were reported as obstacles to female adolescents uptake of contraceptives were fear of been turn away by health workers, fear of parents/elderly person at service delivery, and feeling shy or ashamed of been asked too many questions.

We are under-aged and normally feel shy because we think they will be asking us about our age, and shyness is a major hindrance. [14 years old female adolescent during IDI]

Also, as adolescents, we normally feel shy buying condoms at the pharmacy, because when the older people are around and see you they will either insult you or stigmatized you by saying you are a bad girl and this makes us feel shy and afraid [15-years-old female adolescent FGD]

In addition, adolescents had reported having been refused abortion services at the health facility, and thus compelled them to use family planning to prevent pregnancy, and as well as when family members are not in support of abortion will make an adolescent who become pregnant to either give birth or use contraceptives to prevent the pregnancy from occurring.

4.4.3 Religion and cultural reasons

Adolescents reported religious and cultural barriers that hinder them from using contraceptives, and these reported barriers were a religious prohibition of contraceptives

use and the preaches and sermons of churches on pre-marital sex and fornication influences female adolescents contraceptives use and sexual behaviors. Adolescents who heard the sermons from the bible to speak against contraceptives use, and as well the Qu'ran reported not to use contraceptives and found it as a taboo.

My families are Christians and they believe the use of contraceptive is a taboo. [16-year- old female adolescent IDI]

I am a Jehovah's witnesses, and we do not support the use of contraceptive [17-year-old female adolescent IDI]

I am Muslim, and they do not allow us to use family planning/contraceptives. Even, when you are menstruating, you are not allowed in the mosque. So it serves as a barrier for us to use contraceptives. [18- year- old female adolescent FGD]

As for me my church always preaches chastity for adolescents and abstinence from sex so even when we go to youth camp they advise us not to have sex and use contraceptives...they say if you have sex and use contraceptives, and you go to the face of God, you are unclean and you'll not get what you want from God when you pray. [17-year- old female adolescent FGD]

4.5 Ways to improve contraceptives use

With regards to ways on how to improve on adolescents' contraceptives use, it was reported among adolescents to include the need to organize health education at adolescents' youth clubs, youth corners, and theatres to educate the adolescents on sex and contraceptives use to help prevent teenage pregnancy. They also cited the need to

organize in-service training for healthcare providers to be able to provide an adolescent-friendly health service. Again, there was cited concern of health workers to use visual or pictorial IEC materials for education to enable the illiterate adolescents to learn on the use of contraceptives, and parents should as well tell the truth during sex education to their wards to enable them to make the right choices and decisions. The non-governmental organizations should support reproductive health education at schools, churches, homes, and through fun-fair and sports.

With regards to whether contraceptives use should be encouraged among sexually active adolescents, most were found to have agreed that contraceptives use among adolescents should be encouraged because most of them cannot abstain from sex, and this will help to prevent the increased rate of street children, and also ensure smooth transition stage to adulthood. Also, adolescents are not financially sound to take care of children, and if contraceptives use are encourage will help to prevent teenage pregnancy, high abortion rate, prevent single parenting, enable girls to finish their education and help to improve on their overall health.

On the contrary, some adolescents felt contraceptives use should not be encouraged because they are still under age and will start to misuse the contraceptives if they are not well taught, and some also perceive contraceptives use among adolescents will promote promiscuity among the adolescents at an early age and should not be encouraged. Among cited reasons that adolescents should be allowed to use contraceptives was because the current diet has a significant influence on the growth of adolescents making them grow

fast and menstruate at an early age and if having sex without protection they could become pregnant at an early age as at age of 13years, and therefore should be made accessible to family planning or contraceptives. And they, however, cited doctors and nurses to be friendly during health services. Hospital environment which attracts a lot of people going to seek various level of healthcare services was also found as a factor that affects adolescent uptake of contraceptives. However, call for the need to educate adolescents in the communities, at schools, churches and as well as at youth clubs and adolescents corner

CHAPTER FIVE

DISCUSSION

5.0 Introduction

This chapter discusses the findings of the study, which sought to explore factors affecting female adolescent contraceptive use in James Town. The discussions create linkages between the study results and previous literature to be able to draw the relationship and distinction between the current findings and previous works done by other scholars. The study found that many female adolescents had the knowledge and awareness of contraceptive used and many have reported having ever used contraceptives and few are current contraceptive users. Factors affecting the desire to use contraceptives depend on the age of the adolescents, occupation, parental support, reported the availability of the method and the motivation by parents to either give birth or not.

5.1 Knowledge of Contraceptives use among females' adolescents

The desire of an adolescent to use contraceptives depends on the knowledge and understanding of contraceptive methods. From the study through the discussion, many of the female adolescents had knowledge and are aware of contraception, and many were found to have been able to explain what contraceptives are meant for, and have cited contraceptives as methods or drugs used by women or men to prevent

unplanned/unwanted pregnancies and spacing of children for their desired families. Through the in-depth interviews, adolescents also cited contraceptives as barrier methods which are used to prevent the infection of sexually transmitted diseases such as HIV/AIDS, gonorrhoea, syphilis and among others. The increased in contraceptives knowledge of female adolescents through the focus group discussions and in-depth interviews could possibly be attributed to the increased public health education usually disseminated through public health officers on radio, television, and friends as it was mentioned among the adolescents, and these could have contributed to the increased contraceptives knowledge level of female adolescents who are sexually active.

The increase in contraceptives knowledge was equally found to be high as was reported among a study conducted by Boamah et al (2014) in Ghana. This was a cross-sectional study among sexually active adolescents and have reported high contraceptive knowledge levels among sexually adolescents, and as well as Khan & Mishra (2008). However, in the current study through the in-depth interviews and focus group discussion, there were also few adolescents reported to have low knowledge on what contraceptives are, and were not able to explain what contraceptives are meant for, and this was not different from a study conducted by Relwani et al (2012) study in Nagpur cited low knowledge level of contraceptives among female adolescents and attributed this to low availability of contraceptive methods and negative attitudes of adolescents towards contraceptives.

This is in consonance with the Theory of Reason Action which also posits an interplay between a person's attitude toward the behaviour and subjective norm. This according to

the theory is as a result of one's intention. Invariably, an individual's level of knowledge and perception about contraceptives will influence his or her attitude towards contraceptive usage.

Similarly, this could be related to my current study of few reported low knowledge among female adolescents and in addition, age was a factor leading to few reporting not having knowledge among female adolescents because from my study adolescents who were below 15 years reported low knowledge on contraceptive methods through the interviews and discussions. From my study too, there was also reported knowledge of female adolescents on contraceptive methods to include; condoms, IUD, Injection, emergency contraceptive pills (Levon-2, Postinor-2, and Lydia contraceptives), Implants, menstrual calendar and ring, with majority to have cited deep knowledge on the use of emergency pills like Levon-2, Postinor-2, and Lydia, and condoms.

The increased knowledge on these methods could be attributed to the easy accessibility and availability of these methods in chemical shops/drug stores and pharmacies which could easily be purchased by these adolescents than going to the hospital, and also the current increased public education and TV advertisement on these emergency contraceptives pills in pregnancy prevention, and the use of condoms to the prevention of sexually transmitted diseases. This could also be related to Boamah et al (2014) of Kintampo, and Mendes et al (2011); Lebese et al (2015) and Skrzeczkowska et al (2015) all reported adolescents knowledge on contraceptive methods.

Again, from my study through the discussion, some adolescents had knowledge on the advantages of contraceptives as to the prevention of sexually transmitted diseases (STDs), prevent unplanned pregnancy, help one to decide on the number of children he/she want, and prevention of abortion-related problems among sexually active adolescents. Also, there were reported misconception of adolescents about contraceptives during the in-depth interviews, as it was cited among adolescents of contraceptives causing fibroid, barrenness, and death as well as contraceptives side effects causing weight gain, slimness, menstruate problems such as menstruate irregularities and pains. This could be attributed to misinformation, low knowledge level, perceptions and negative attitudes of adolescents toward contraceptives and the wrong information and advice which are been peddles by individuals about contraceptives. These findings relate with the studies of Mugoyela & Kimaro (2010); and Onasoga et al (2016) of Nigeria and cited the needs for adolescents to be better informed and educated on the various contraceptive methods.

From my current study, the study found female adolescents to also have knowledge of local ways of preventing pregnancy, and these ways include the use of *“local herbal medicine call „ödido”* as concoction and the *“mixture of Guinness and sugar”* and as well as *“mixture of hard liquor like local gin and Fanta and add a lot of sugar”*, *energy-drink like „Rush”* and *“tomatoes mixed with Fanta drink and a lot of sugar”* as a means of preventing pregnancy among sexually active female adolescents. This could be attributed to the unmet needs of contraceptives among women of reproductive age and this could trigger adolescents who are in need of contraceptives but cannot have access to

their contraceptive choices, would have compelled them to adopt another means of preventing pregnancy, and required the need to increase contraceptives availability and accessibility to women who are of reproductive age, who mostly found to be in need of contraceptives.

However, many female adolescents through the discussion reported to have knowledge on where to access contraceptives, and have reported having accessed contraceptives through pharmacy, drug Store or chemical shops, through traditional medicine sellers locally call “*Shikpon tsofa tsemei*”, mobile vendors, from friends, polyclinics, health centers, hospital, child welfare clinic (CWC), and through local hide-out such as London market, and at the beaches. The knowledge of adolescents on the sources of access to contraceptives was because most of these facilities provide these services and due to public education on where contraceptives could be accessed and this, therefore, might have been the reasons why most adolescents have reported to have accessed contraceptives at these sources. This similarly relates to sources which were equally reported by Boamah et al (2014); Babatunde et al (2016); Chimah et al (2016); and that of the study by Onasoga et al (2016) in Nigeria.

5.2 Contraceptives use among female adolescents

Many of the female adolescents have reported ever using contraceptives, even and some have reported not to have used contraceptives during the interviews and discussion sections. The increased in contraceptives use could be due to the increased knowledge level of contraceptives among female adolescents because from the study most female

adolescents were found to have obtained their preferred choice of contraceptives, from friends, pharmacy, local hide-out markets (London market), maternity Clinics/homes, provision or toffee shops, tea sellers, and beer bars, and some reported to always purchased condoms mostly at chemical shops. In related studies by Coles, Makino, & Stanwood (2011); Decat et al (2015); and (O'Mahony, Yogeswaran, & Wright (2013) found increased contraceptives use among adolescents and relate it to the knowledge level of adolescents on contraceptive methods.

Again, from the study, reasons for the use of contraceptives was found to be influenced by their decision not to get pregnant at an early age, and their desire to enjoy the pleasure of sex without any unplanned pregnancy have contributed to many of them to have used contraceptives in order to avoid the hustle of taking care of children and having any problem with their parents and as well as their colleagues to have mocked at them, and these were unearthed through the focus group discussion. Also, few of the adolescents through the in-depth interviews were found to have used contraceptives because they do not want to be infected with any sexually transmitted diseases such as HIV/AIDS, gonorrhoea and syphilis, and this has compelled them to used condoms during sex. These reasons could possibly be due to the health education through schools, hospital and on the radio and television stations which could have contributed to their knowledge and use of contraceptives.

Also, it could be due to the increased awareness creation on the use of condoms to the prevention of STIs/STDs and as well as some might have been engaged in trade, education and other ventures and might not want to be pregnant at early age, and this could have increased their quest to search for information on pregnancy prevention to

enable them to finish whatever trade they had engaged themselves. In related studies such as Obare et al (2011); Ikamari & Towett (2007); Iyoke et al (2014); Bankole & Malarcher (2010); and KNBS and ICF Macro (2010) of Nigeria and Kenya cited contraceptives usage among adolescents, and have stated related reasons as to why adolescents will want to use contraceptives.

In addition, current contraceptives use was also reported among females and most have reported having used condoms, emergency pills (Lydia, Levon-2, and Postinor-2), injectables, implants, and IUD as a means of preventing pregnancy. Modern contraceptives used among adolescents was equally found to have been reported by Dangat & Njau (2013); Kareem and Samba (2016) of Ghana, Nyarko (2015) study in Volta region, Ghana, Marrone et al (2014); Boamah et al (2014); and UNFPA (2013) studies, and cited high level of modern contraceptives used among adolescents, and have attributed this to current public health education and actually call for the need to ensure contraceptives access to adolescents and the need to regulate the population growth and the prevention of sexually transmitted infections.

The Theory of Planned Behaviour as postulated by Ajzen and Fishbein (1980) could be used to spell out clearly reasons for using contraceptives. According to the theory, subjective norms such as demographic characteristics, culture, and religion have been noted to be key determinants in contraceptive usage. The theory also finds normative beliefs such as knowledge and perception to have intricate relationships with behavioural beliefs. Hence, contraceptive utilization as found in this study was also premised on an interplay of all these norms and beliefs.

5.3 Identified reasons affecting contraceptive use among female adolescents

Adolescents' contraceptive knowledge and uptake of contraceptives could be affected by certain predictive factors. From the study through both focus group discussion and in-depth interviews found the following factors to have to stimulate adolescents to the use of contraceptives were found to include the adolescent desire to either give birth or not, and peer pressure from friends and family to give birth and as well as when the parents of the adolescents are willing to take care of the child when pregnancy occurs, and these were reported among adolescents as factors that affect their desire to use contraceptives, and was found to have been related to several studies. (Undie et al., 2007; Watts et al., 2014; Katama & Hibstu, 2016 and Ugoji, 2013).

Again, when adolescents are been refused abortion services at the health facility, as it was reported during the discussion could compel them to use family planning to prevent pregnancy, and as well as when family members are not in support of abortion will cause an adolescent to make a choice of using contraceptives than to become pregnant, this, however, relate with Stuart (2009) study which reported similar findings on the influence of abortion services on adolescents contraceptives use. On the contrarily, there was reported reasons for non-use of contraceptives among sexually active adolescents, and these were found to include; stereotyping of adolescents clients at the health facility as

„perverts“, the high cost of contraceptives and low income/lack of money for an adolescent to purchase the method.

Among other factors during the discussion that cause an adolescents not to use contraceptives was reported to include embarrassing experiences of adolescents at health facility, lack of knowledge/sex education, peer pressure from family/friends, discomfort with contraceptives side effect, and perception of being „unchaste“ when using condoms were cited as reasons for non-use of contraceptives. In related studies by UNFPA, and Alan Guttmacher Institute (2008); Rose (2012); and Nyalali, et al (2013) equally reported similar factors to have a significant influence on the uptake of contraceptives.

Notwithstanding this, negative perceptions and health staff attitude towards adolescents during services delivery affect adolescents“ uptake of contraceptives, and as well as fear of been turn away by health workers, fear of parents/elderly person at service delivery, and feeling shy or ashamed of been ask too many questions were among factors that make adolescents not to patronize contraceptives services, as these were reported during the interviews. These, however, was equally reported by Lloyd (2005) and Greenberg et al (2013) citing similar factors to have a significant influence on adolescents uptake of contraceptives. Also, from my study, the adolescents reported religious and cultural beliefs and faiths to influence their contraceptives to use; as religious prohibition of contraceptives use and churches preaching on contraceptives use to promote pre-marital sex and fornication influences female adolescents“ contraceptives use and sexual behaviours, and could relate to studies by Gold, et al (2010); and Sam & Marcelli (2003).

Additionally, health facility environment, fear of STIs infection, age of the adolescents, married status and sex education was equally reported to have influences on the adolescents' uptake of contraceptives, as some have reported having been turned away at the health facility for being underage and others reported of being questioned of their marital status before access to contraceptives, and fear of being infected with HIV/AIDS and other STIs were reported among some as the reasons for the condoms use to protect themselves against STIs/STDs infections. This was equally reported in studies by Ikamari & Towett (2007); Chaaban & Cunningham (2011); Sibeko (2012); Mwaba (2000); and Bankole & Malarcher (2010) citing these factors to have an influence on adolescents uptake of contraceptives.

5.4 Study limitations

The limitations to the study were found to include the following; one of such was due to the fact that the study topic centred on exploring adolescents sexuality and contraceptives use and for the purposes of personality traits, beliefs, and perceptions of the individual adolescents, there is the likelihood of some information being concealed by the adolescents for purposes of protecting their personality which might limit the findings of this study. Also, the use of focus group discussion might have put fear and shyness in some adolescents in the mix of their colleagues in bringing out the issues related to adolescents' contraceptives use which equally might have served as a limitation to this study.

Additionally, during data collection, there were challenges with the mobilization of study participants for the focus group discussion owing to the dearth of synchronization of time by study participants, and this might have also limited the sort of information the adolescents will provide during the discussion and the in-depth interviews. However, efforts were taken by encouraging adolescents to speak during the discussion and the in-depth interviews to be able to get the right information from female adolescents.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

This chapter presents the conclusions and recommendations from the study findings. The conclusions of this study are based on the major findings of the study which sought to explore contraceptives use among female adolescents in James town, Accra Ghana. The recommendations were drawn from the study findings and targeted to help them make evidence-based decisions and develop appropriate interventions.

6.1 Conclusions

Based on the findings, the following conclusions are made:

- Many of the female adolescents knew about contraceptives as a method of preventing unwanted pregnancies and STIs. Methods of contraceptives that were common among participants were male condoms, emergency contraceptive pills, implants, IUD and injectable. Knowledge of contraceptives according to participants was obtained from Television commercials, radio advertisements, friends and print media
- Some female adolescents indicated to have ever used contraceptives whereas some are currently using, other however indicated to have never used contraceptives. Sources from which adolescents mostly obtained contraceptives included local hideouts, friends, mobile vendors and chemical shops
- Reasons that prominently featured as having influenced contraceptive usage included peer and family influences, health facility and provider-related factors, religion and culture. Female adolescents who were pressurized by family and

friends into giving birth were found not to have used contraceptives. Adolescents who had previous experiences with negative healthcare provider attitudes were found not to be using contraceptives. Religious affiliations were found to have an influenced contraceptive usage among the participants

6.2 Recommendations

The recommendations were segmented below into policy, clinical/public health and avenues for further research.

6.2.1 Policy

1. Ghana Education Service through the School Health Education Programme should collaborate with parents on sex education through the Parent Teachers Association so that parents can educate their teenagers at home about their sexuality and effective contraceptive use.
2. Ghana Health Service should intensify in-service training to improve the provider-client relationship and handling of the adolescents whenever they come to the health facility to request for contraceptives as some have reported of been turn away due to underage, and positive relationship and attitude toward adolescents.

6.2.2 Public Health/Clinical Practice

1. Ghana Health Service should step up public health education through the mass media particularly on the proper use of emergency contraceptives and how to access contraceptives.
2. It is recommended that health facilities within the Ashiedu Keteke sub-metro designate more adolescent-friendly corners to promote health care utilization among adolescents.

6.2.3 Research

Future qualitative studies must seek to explore adolescent contraceptive usage factors from the perspective of parents and service providers. Additionally, future research should also focus on less known practices that are purported to be contraceptives.

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APPENDICES

Appendix I: Study Information Sheet and Consent Forms



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COLLEGE OF HEALTH SCIENCES, UNIVERSITY OF GHANA, LEGON

INSTITUTIONAL REVIEW BOARD

Possible Risks and Discomforts

There is no physical risk in this research. However, due to the sensitive nature of this research you may feel uncomfortable responding to certain questions. It may also remind you of any painful sexual activities that might have gone through in the past.

Possible Benefits

Findings of this study can help stakeholders and policy makers to formulate policies that could benefit you directly or indirectly. It can also be used to plan programs/interventions that will improve adolescent health in Ghana.

Confidentiality

All information collected from you will be confidential and will not be disclosed to any individuals. Data will be analysed together and no name will be linked to the report.

For security and safety, gathered data (soft copies will be saved on a hard drive with a password) while hard copies will be kept in a locked cupboard with access to only the principal investigator (PI) and the study team.

Compensation

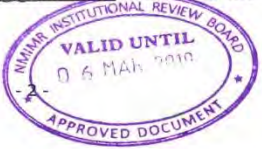
There is no compensation for participating in the research, their inputs will be recognized and appreciated

Voluntary Participation and Right to Leave the Research

You can stop participating in this study at any time if you feel uncomfortable. No one will be angry with you and there is no penalty if you are not able to participate. However your contribution will be helpful.

Contacts for Additional Information

You can contact me to ask any question or clarification concerning this study. Contact me at any time Pearl Vondee on 0266001895, email pvdzah@gmail.com or talk to me the next time you see me.





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Voluntary Withdrawal

Participation in this study is strictly voluntary. Thus, you are at liberty to withdraw from the study at any time. However, your answers are greatly needed to help this research meet its objectives.

Your rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of Noguchi Memorial Institute for Medical Research (NMIMR-IRB). If you have any questions about your rights as a research participant you can contact the IRB Office between the hours of 8am-5pm through the landline 0302916438 or email addresses: nirb@noguchi.ug.edu.gh

VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research title **Factors influencing modern Contraceptive use among female adolescents in James Town, Accra** has been read and 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.

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





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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 Signature of Person Who Obtained Consent





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B. CHILD ASSENT FORM

Title: **Factors influencing modern Contraceptive use among female adolescents in James Town.**

Principal Investigator: **Pearl Ama Vondee**

Address: **School Of Public Health**

Department of Population, Family and Reproductive Health

University Of Ghana Legon

0209740765/02429988038

Introduction

My name is Pearl Ama Vondee and I am from the Department of Population, Family and Reproductive Health Unit at University of Ghana School of Public Health. I am conducting a research study entitled **Factors influencing modern Contraceptive use among female adolescents in James Town, Accra**. I want you to take part in this research study because I want to learn more about factors influencing modern Contraceptive use among female adolescents in James Town. This will be in a form of group discussion involving other adolescents. This will take about one and half hours to two hours of your time. Information obtained would be used for purely academic purposes and treated with absolute confidentiality. I would like you to give me information concerning contraceptive practices, knowledge on contraceptive method and factors associated with contraceptive use among female adolescents in James Town.

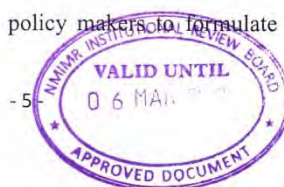
Languages such as English, Ga and Twi will be use during the conversation. You will be required to sign a concern form before the start of the group discussion to indicate your willingness to participate. The conversation will be recorded and will be kept highly confidential. It will not include anything to identify your identity, such as name. Special codes will be used to protect your identity. You have the right to withdraw or to decline to any answer or questions at any time during the group discussion and you will not have to face any charges or questioning.

General Information

If you agree to take part in this study, you will be ask to join the group discussion

Possible Benefits

Findings of this study can help stakeholders and policy makers to formulate policies that could benefit you directly or indirectly.





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COLLEGE OF HEALTH SCIENCES, UNIVERSITY OF GHANA, LEGON

INSTITUTIONAL REVIEW BOARD

Possible Risks and Discomforts

There is no physical risk in this research. However, due to the sensitive nature of this research you may feel uncomfortable responding to certain questions. It may also remind you of any painful sexual activities that might have gone through in the past.

Voluntary Participation and Right to Leave the Research

You can stop participating at any time if you feel uncomfortable. No one will be angry with you if you are not able to participate

Confidentiality

All information collected from you will be protected to the best of my ability. Your name will not be named in any reports.

For security and safety, gathered data (soft copies will be saved on a hard drive with a password) while hard copies will be kept in a locked cupboard with access to only the principal investigator (PI) and the study

Contacts for Additional Information

You can contact me to ask any question or clarification concerning this study. Contact me at any time Pearl Ama Vondee on 0266001895 or talk to me the next time you see me.

Please talk about this study with your parents before you decide whether or not to participate. I will also ask permission from your parents before you are enrolled into the study. Even if your parents say "yes" you can still decide not to participate.

Your rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of Noguchi Memorial Institute for Medical Research (NMIMR-IRB). If you have any questions about your rights as a research participant you can contact the IRB Office between the hours of 8am-5pm through the landline 0302916438 or email addresses: nirb@noguchi.ug.edu.gh





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VOLUNTARY AGREEMENT

By making a mark or thumb printing below, it means that you understand and know the issues concerning this research study. If you do not want to participate in this study, please do not sign this assent form. You and your parents will be given a copy of this form after you have signed it.

This assent form which describes the benefits, risks and procedures for the research titled **Factors influencing modern Contraceptive use among female adolescents in James Town, Accra** has been read and or explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate.

Child's Name: Researcher's Name:

Child's Mark/Thumbprint..... Researcher's Signature:

Date: Date:





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INSTITUTIONAL REVIEW BOARD

C. PARENTAL CONSENT FORM

Title: Factors influencing modern Contraceptive use among female Adolescents in James Town, Accra.

Principal Investigator: Pearl Ama Vondee

Address: University of Ghana

School Of Public Health

Department of Population, Family and Reproductive Health

University of Ghana- Legon

Tel: 0266001895/0206608003

Email: pvdzah@gmail.com

General information about Research

My name is Pearl Ama Vondee and I am from the Department of Population, Family and Reproductive Health Unit at University of Ghana School of Public Health. I am conducting a research study entitled **Factors influencing modern Contraceptive use among female adolescents in James Town Accra**. I want your child to take part in this research study because I want you to learn more about factors influencing modern Contraceptive use among female adolescents in James Town. This will be in a form of group discussion involving other adolescents. This will take about one and half hours to two hours of your child's time. Information obtained from the study would be used for purely academic purposes and treated with absolute confidentiality. I would like your child to give me information concerning contraceptive practices, knowledge on contraceptive method and factors associated with contraceptive use among female adolescents in James Town.

Languages such as English, Ga and Twi will be use during the conversation. Your child will be required to sign an assent form before the start of the group discussion to indicate your child's willingness to participate. The conversation will be recorded and will be kept highly confidential. It will not include anything to identify your child, such as his or her name. Special codes will be used to protect your child's identity. He or she has the right to withdraw or to decline to any answer or questions at any time during the group discussion and he or she will not have to face any charges or questioning.





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D. INTERVIEW GUIDE (ADOLESCENTS)

1. What immediately comes to mind when you hear the term contraceptives or contraceptive methods?
2. What contraceptive methods (ways) do you know could be used to avoid or delay pregnancy (mention all that apply).
3. Can you identify any of these contraceptives provided?
4. What are the benefits or advantages of using contraceptives as an adolescent?
5. In your opinion what are the negative effects or disadvantages of using contraceptives?
6. Have you heard of any traditional methods for delaying or avoiding pregnancy in this community?
7. In your opinion which contraceptive method is more effective? Give reasons for your answer
8. Mention any contraceptive provider you know in this community.
9. Which of the above service providers do you think adolescents in this community patronize?
10. Do you think youth or adolescents should have access to contraceptives? If so why?
11. Are contraceptive services easily accessed by all adolescents in this community?
12. What is the attitude of providers towards adolescents in contraceptive delivery in this community?
13. Have you ever been turned back/ refused contraceptive service at any time of the day or for any reasons?
14. How conducive is the environment at the service delivery centers for adolescents?
15. What are the reasons why some adolescents in this community do not patronize contraceptives?
16. Does your religion/ culture act as a barrier to contraceptive use in this community?
17. What measures can be taken to improve contraceptive uptake in this community?
18. Should contraception be encouraged or discouraged among adolescents in this community?





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COLLEGE OF HEALTH SCIENCES, UNIVERSITY OF GHANA, LEGON

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Your rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of Noguchi Memorial Institute for Medical Research (NMIMR-IRB). If you have any questions about your rights as a research participant you can contact the IRB Office between the hours of 8am-5pm through the landline 0302916438 or email addresses: nirb@noguchi.ug.edu.gh

VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research title **Factors Influencing Modern Contraceptive Use among Female Adolescents in James Town, Accra** has been read and explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree that my child should participate as a volunteer.

Date

Name and signature or mark of parent or guardian

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 child's parent or guardian. All questions were answered and the child's parent has agreed that his or her child should 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
Consent

Name Signature of Person Who Obtained



Appendix II: Interview Guide

INTERVIEW GUIDE (ADOLESCENTS)

1. What immediately comes to mind when you hear the term contraceptives or contraceptive methods?
2. What contraceptive methods (ways) do you know could be used to avoid or delay pregnancy (mention all that apply).
3. Can you identify any of these contraceptives provided?
4. What are the benefits or advantages of using contraceptives as an adolescent?
5. In your opinion what are the negative effects or disadvantages of using contraceptives?
6. Have you heard of any traditional methods for delaying or avoiding pregnancy in this community?
7. In your opinion which contraceptive method is more effective? Give reasons for your answer
8. Mention any contraceptive provider you know in this community.
9. Which of the above service providers do you think adolescents in this community patronize?
10. Do you think youth or adolescents should have access to contraceptives? If so why?
11. Are contraceptive services easily accessed by all adolescents in this community?
12. What is the attitude of providers towards adolescents in contraceptive delivery in this community?
13. Have you ever been turned back/ refused contraceptive service at any time of the day or for any reasons?
14. How conducive is the environment at the service delivery centers for adolescents?
15. What are the reasons why some adolescents in this community do not patronize contraceptives?
16. Does your religion/ culture act as a barrier to contraceptive use in this community?
17. What measures can be taken to improve contraceptive uptake in this community?
18. Should contraception be encouraged or discouraged among adolescents in this community?

Appendix III: Letter of Ethical Clearance

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Established 1979A Constituent of the College of Health Sciences

Phone: +233-302-916438 (Direct)
+233-289-522574
Fax: +233-302-502182/513202
E-mail: nirb@noguchi.mimcom.org
Telex No: 2556 UGL GH

INSTITUTIONAL REVIEW BOARD



University of Ghana

Post Office Box LG 581
Legon, Accra
Ghana

My Ref. No: DF.22
Your Ref. No:

7th March, 2018

ETHICAL CLEARANCE

FEDERALWIDE ASSURANCE FWA 00001824

IRB 00001276

NMIMR-IRB CPN 071/17-18

IORG 0000908

On 7th March, 2018, the Noguchi Memorial Institute for Medical Research (NMIMR) Institutional Review Board (IRB) at a full board meeting reviewed and approved your protocol titled:

TITLE OF PROTOCOL : Factors influencing modern contraceptive use among female adolescent in James town, Accra

PRINCIPAL INVESTIGATOR : Pearl Ama Vondee, MPH Cand.

Please note that a final review report must be submitted to the Board at the completion of the study. Your research records may be audited at any time during or after the implementation.

Any modification of this research project must be submitted to the IRB for review and approval prior to implementation.

Please report all serious adverse events related to this study to NMIMR-IRB within seven days verbally and fourteen days in writing.

This certificate is valid till 6th March, 2019. You are to submit annual reports for continuing review.

Signature of Chair:

Mrs. Chris Dadzie
(NMIMR – IRB, Chair)