UNIVERSITY OF CAPE COAST

FEMALE ADOLESCENTS' KNOWLEDGE, ACCESS AND USAGE OF CONTRACEPTIVES IN THREE SELECTED JUNIOR HIGH SCHOOLS IN THE CAPE COAST METROPOLIS

LYDIA WIAFEWAH TWUM

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BY

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Thesis Submitted to the School of Nursing and Midwifery of the College of Health and Allied Sciences, University of Cape Coast, in Partial fulfilment of the requirements for the awards of Master of Nursing Degree

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature…….. Date… ……..

Name: Lydia Wiafewah Twum

Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Supervisor's Signature……. Date… …….

Name: Dr Mate Siakwa

ABSTRACT

Though contraceptive knowledge has become widespread among Female Adolescents in Ghana, its use has persistently remained low for which the Central Region is no exception. Several studies have shown no evidence of empirical study conducted on Adolescents knowledge, Access and Usage of contraceptives among female adolescents in the Cape Coast Metropolis. To fill this literature gap, this study assessed the Adolescents knowledge level of contraceptive usage, the availability and accessibility of contraceptive, the rate of contraceptive usage, and the barriers to contraceptive use, using 150 adolescents in three selected schools in the study area. The descriptive study style was employed using structured questionnaire which was self-administered. Frequencies and percentages of data were displayed using tables, non-parametric equivalent of the One-way ANOVA and the Kruskal-Wallis method of data analysis. Findings from the study revealed that, knowledge on contraceptives was universal with almost every respondent being knowledgeable in the variables provided. Principally most respondents knew the pharmacy as the only sales point or source for contraceptives. A low prevalence rate of contraceptive use was also revealed. Aside from that, results from both culture and religion clearly showed that, both were not in support of contraceptive use for adolescents. The study therefore recommends the need to improve awareness among the study population.

KEY WORDS

Access to Contraceptive Use

Barriers to Contraceptive

Contraceptive Use,

Female Adolescent,

Knowledge on Contraceptive Use.

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DEDICATION

To My lovely husband Professor Emmanuel Kofi Gyimah and kids, Danielle Twumwaa Gyimah, Gideon Owusu Gyimah and Beatrice Afedzewaa Gyimah.

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LIST OF ACRONYMS

ARHP	Association of Reproductive Health Professionals
CHPS	Community Health Based Project Services
GDHS	Ghana Demographic Health Survey
GHS	Ghana Health Service
HIV	Human Immuno Deficiency Virus
IUD	Intra Uterine Device
LAM	Lactational Amenorrhea Method
OCP	Oral Contraceptive Pill
PPAG	Planned Parenthood Association of Ghana
SRH	Sexual Reproductive health
SRH	Sexual and reproductive health
STI	Sexually Transmitted Infections
UNFPA	United Nations Population fund
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

Background to the Study

Adolescent as defined by the World Health Organization (WHO) (2018), is any young person between the ages of 10 and 19. The period through which this young person progresses is known as the period of adolescence. This phase of life stretches between childhood and adulthood (Sawyer, Azzopardi, Wickremarathn & Patton, 2018). Biologically, Sharp (2018), described this period as a span of time starting with puberty and concluding with maturity. Furthermore, the period may be classified into three stages of development thus, early 10 to 15 years, middle 14 to 17 years and late 16 to 19 years (WHO, 2010).

According to Freud (1925), a whole lot of challenges take place during this period, which the adolescent has to make adjustments to. According to him, these challenges have got to do with the self-image where there is the appearance of pubic hair in sexes, the development of breasts in females, and the first signs of beard in males. This may be seen as challenges in the sense that, whether the adolescent likes it or not, he or she would have to live with these physical appearances though out his or her life time.

Likewise, Hall (1916), also pointed out that, adolescence is a time of "storm and stress" during which the individual is thrown about by opposites such as action versus inaction, excitement versus calm, elation versus depression, self-confidence versus doubts about self-esteem, and the need for authority versus the need to rebel against authority.

Erikson (1959) also added on that, the adolescent at this stage also establishes a sense of personal identity and avoid the dangers of role diffusion and identity confusion. Razak (2016), described this phase as a period characterized by increased exploration and exposure to risk-taking behaviours, including unsafe sex. In recent years, adolescents have started to mature earlier than before, which results in a number of negative implications, particularly affecting their reproductive abilities and sexual health (Skrzeczkowska, Heimrath, Surdyka & Zalewski, 2016).

Both the rates of sexually transmitted infectioins and the number of unplanned or undesired pregnancies in adolescents/young adults is on the rise (Skrzeczkowska et al., 2016), which calls for the need for preventing such phenomena. Again Razak (2016), observes that, globally most adolescents become sexually active before their 20th birthday, and in Sub-Saharan Africa, 75% of adolescents report having had sex by age 20.

Green and Merrick (2015), also submit that, about 1 in 6 people globally are adolescents. This equals 1.2 billion people between the ages of 10 and 19. Amongst these more than 46,000 adolescent girls give birth each day (Green & Merrick, 2015). High birth rates according to Maclean (2016), may not only affect maternal and child mortality but frustrates governments in the provision of social and health services to communities such as the provision of national health insurance scheme which provides assistance to health charges.

In a study, Maclean (2016), reported the great benefits of investing in family planning, these included reduced poverty levels, improvement in maternal

and child survival, and women's participation in the labor market. However, over 200 million girls in developing countries have an unmet need for family planning despite a global call for promotion of and investment into family planning (Maclean, 2016).

Yidana, Ziblim, Azongo, Yakubu and Abass (2015), concluded that, most sexually active adolescent girls in developing countries do not use contraceptive. This may result in many negative social and health outcomes, including elevated maternal and newborn death rates, abortion and abortion-related complications (Green & Merrick, 2015). Recent data from several countries in sub-Saharan Africa show that only a third of unmarried, sexually active girls 15 to 19 years old are using contraception, with most of the others indicating an unmet need for methods to delay or space pregnancy (Green & Merrick, 2015).

Contraceptives refer to any family planning method used to prevent a pregnancy. This is achievable by interfering with the normal process of ovulation, fertilization, and implantation (Deri, 2016). Finding an effective method that everyone can easily access has been a major hurdle. This challenge exists primarily because of the push-pull forces of various contextual factors which can be socio-demographic, cultural, economic, and religious or even psychological (Deri, 2016).

Yidana et al., (2015), argue that, the sexual and reproductive health of adolescents is a pressing concern because the world has a larger population of adolescents now than ever before. This group of people, have been seen to be sexually active and in need of information about sexual health and access to

contraceptive products and services (Guttmacher Institute, 2015). Most of them in their bid to solicit information from various sources often miss it by getting exposed to inaccurate or incomplete information (Yidana et al., 2015).

Furthermore, Feleke, Koye, Demssie and Mengesha (2013), in their study, submitted that, contraceptive use among married women who are 15–19 years old was only 17 percent, while the use among unmarried sexually active adolescents, is believed to be even lower. Irrespective of the consequences likely to occur, these teenage girls unfortunately run or get themselves into unintended pregnancies which further ruin their lives. Feleke et al., (2013), further revealed that the risk of dying from complications related to pregnancy or childbirth is two times higher for those aged 15–19 than for women in their mid-twenties.

An estimated, 225 million women in developing countries would like to delay or stop childbearing but are not using any method of contraception (Endriyas, 2017). The worldwide rate of unintended pregnancy in 2012 was 53 per 1,000 women aged 15–44 with the highest regional rate in Africa. Avoiding barriers to the use of contraceptive methods could avert 54 million unintended pregnancies, 79,000 maternal deaths and one million infant deaths each year (Endriyas, 2017).

According to Herbert (2015), a number of influences such as stereotypes, stigma, misconceptions and fear limit uptake of contraception. Attitude of the service providers are seen as one of the most common barriers to young people's use of contraceptives. Notwithstanding, Schuler, Rottach and Mukiri (2011), also found that, sexual jealousy discouraged contraceptive use, as men worried that

women's use of contraception might allow them to be promiscuous and unfaithful without fear of conceiving.

In Sub-Sahara Africa, 20% to 30% of partners and significant others oppose contraceptives use (Clottey, 2012). In that case, they do not encourage their adolescents to use contraceptives. It is a taboo in Ghana for adolescents to talk about sexual issues let alone contraceptives. Some communities do not openly discuss contraceptives, due to strong cultural and religious beliefs, hence usage appear to be low and adolescents get exposed to the increased risk of unwanted or unintended pregnancies (Clottey, 2012). Furthermore, over 50% of women in Africa are poor and illiterate, thus not knowledgeable in the correct use of contraceptives, hence the low use (Clottey, 2012).

Problem Statement

Ford and Holder (2016), in a study have shown a massive increase of contraceptive use among reproductive women since 1970 to 2015, thus 36% to 64% respectively. In spite of this, Africa has the lowest percentage of women in their reproductive ages using contraceptives, and the highest unmet need in the world. About half of pregnancies among adolescent women aged 15–19 years living in developing regions are sexually active and do not want a child in the next two years.

According to Frost & Lndeberg (2013), 15 million of these adolescents use a modern contraceptive method, while 23 million have an unmet need for modern contraception and are thus at elevated risk of unintended pregnancy. Statistics from the Population and Housing Census (2010), reveal the population of

Ghanaians to be around 27 million, of which more than half of this are women. A little above 16 percent of the population is between the ages 15-19 years, this age range constitute the sexually active population. This however, calls for more attention on improving the reproductive health of women and more especially adolescents.

The World Health Organization (2018), also speculates that, because the global population of adolescents continues to grow, the number of adolescent pregnancies will increase globally by 2030, with the greatest proportional increases in the West, Central, Eastern and Southern Africa. This may result in the increase of economic, emotional, psychological and social crisis. The adolescent mother may be likely to face health risks such as eclampsia, puerperal endometritis and systemic infections than women aged 20 to 24 years. Abortion may lead to maternal mortality and a lasting health problem.

Furthermore, the emotional, psychological and social needs of pregnant adolescent girls can be greater than that of other women. There could be intense stigma or rejection by parents and peers as well as threats of violence (Maly, McClendon & Baumgartner, 2017). Similarly, girls who become pregnant before age 18 are more likely to experience violence within marriage or a partnership Maly, et al., (2017). With regards to education the adolescent girl perceives pregnancy to be a better option in her circumstances than continuing education. Their subsequent lower education attainment may result in the adolescent having fewer skills and opportunities for employment, and may often perpetuate cycles of poverty (WHO, 2018).

Globally, measures have been instituted to reduce the prevalence of teenage pregnancy with its subsequent complications. The WHO (2011) published guidelines with the UN Population Fund (UNFPA) on preventing early pregnancies and reducing poor reproductive outcomes. These guidelines included reducing marriage before the age of 18 years, creating understanding and support to reduce pregnancy before the age of 20 years and increasing the use of contraception by adolescents at risk of unintended pregnancy (WHO, 2011). If this need was to be met, about 2.1 million unplanned births, 3.2 million abortions, and 5600 maternal deaths could be averted each year.

The Government of Ghana through the health sector has also expanded Community Health Based Planning Services (CHPS) zones in all regions in Ghana, increasing them from 868 in 2009 to 1675 in 2011, so that reproductive health services get closer to the adolescent (Zaney, 2018). Family planning centers have also been set up to counsel women in their reproductive ages on family planning and the prevention of sexually transmitted infections (Zaney, 2018). The Planned Parenthood Association of Ghana (PPAG) has also expanded its operations to cover a whole range of Sexual and Reproductive Health services (Zaney, 2018). Above it all, the Cape Coast Metropolis (CCM) and other neighboring district have also in existence, youth corners all over the district.

In spite of these efforts, teen pregnancies in the Central Region have consistently increased with figures remaining high each year as compared to what is recorded in other regions of Ghana. Report from the Central Regional Health Directorate reveals that, 89, 518 and 93,362 cases of teenage pregnancy were

recorded in 2015 and 2016, respectively. In 2017, the Central Region was ranked as the second highest region with teenage pregnancy (Ghana Health Service (GHS), 2016). These alarming figures appear to reveal that contraceptive use was not well patronized. The region, since 2014 has consistently had low patronage of modern contraceptives in comparison with other regions of the country, (Ghana Health Service (GHS), 2016).

Therefore, this study was conducted to ascertain the knowledge, Access and Usage of contraceptives among female adolescents in three selected junior high schools in the Cape Coast Metropolis. The junior high schools were selected because, that was where the adolescents could be found.

Purpose of the Study

The study ascertained the knowledge, access and usage of contraceptives among female adolescents in the Cape Coast Metropolis.

Specifically, the study assessed the;

1. knowledge level of contraceptive usage among the adolescents in the Cape Coast Metropolis.
2. availability and accessibility of contraceptive use among adolescent in the Cape Coast Metropolis.
3. contraceptive usage among the adolescent in the Cape Coast Metropolis.
4. barriers to contraceptive use among the adolescent in the Cape Coast Metropolis

Research Questions

1. What is the knowledge level of adolescents' use of contraceptives in the Cape Coast Metropolis?
2. How accessible and available is the use of contraceptives to adolescents in the Cape Coast Metropolis?
3. How often do the adolescent utilize contraceptives in the Cape Coast Metropolis?
4. What are the barriers that influence the use of contraceptives among adolescent in the Cape Coast Metropolis?

Significance of the Study

The study was conducted to educate the female adolescent on good sexual behavioural practices and the effective use of modern. Sexual activity rate among adolescents is quite high, whilst usage of contraception is low or not used at all by these young ones. This makes the risk of pregnancy, unsafe abortion and prevalence to sexually transmitted infections prevalent.

This research will contribute to the building of the curriculum for Junior High pupils by making sex education as well as adolescent health part of the curriculum. The Netherlands produce the lowest teen birth rates in the world; 5.1 per 1000 females aged 15 – 19 (Kost & Henshaw, 2012). This is because, sex education should be taught as early as preschool (three and half) and integrated into all aspects and subjects of the schooling system.

This study may serve as a guide and a source of reference for Junior high schools in the Central Region of Ghana, since they bear the same characteristics

in terms of socio demographics, level of education and exposure to sex education and contraceptive use.

It will be a guide for the Ministry of Health to develop new health initiatives that will assist adolescents to fully utilize contraceptive services and may be beneficial to public education policy in addition it may facilitate the development of new strategies to help improve adolescents' reproductive health in Ghana.

With respect to policy, this study will provide the necessary data to inform policy makers, stakeholders and partners on the implementation of adolescents' reproductive health programmes.

The findings of this study may provide essential information regarding contraceptive use in Cape Coast Metropolis, it will help advice the policy makers on what areas to set and formulate policies that would speed up wider adoption of contraceptives as well as strengthening the implementation of youth friendly programmes at the facility, district and country levels.

Delimitation

The study is limited to the knowledge, access and usage of contraceptives among female adolescents in three selected junior high schools in the Cape Coast Metropolis. It will not cover contraceptive use among adolescent males due to the purpose of the study. The researcher selected this problem due to the increase of teenage pregnancy in the Central Region with figures that remained high almost every year, as well as the low patronage of contraceptive use.

To elicit the necessary response the researcher found it necessary to adopt the following objectives: Assessing the knowledge level of contraceptive usage among the adolescents, assessing the availability or accessibility of contraceptive use among adolescent, accessing how often adolescents utilized contraceptives and the barriers to contraceptive use among the adolescent all in the Cape Coast Metropolis.

The study further adopted the descriptive study design and used a number of 150 respondents for the answering of the questionnaire with a sample size of 67, 38 and 45 pupils selected at random from their respective schools. Schools were conveniently selected from the Cape Coast Metropolis.

Limitations

Access to the students was seen as a limitation. This was due to the teaching and learning that was in progress, teachers found it difficult sparing their little time for me to interact with the students through the questionnaire. Hence, there was limited time to explain thoroughly the information that was on the questionnaire. This development could have affected their responses to the questionnaire. Also selection of schools with the use of the purposive sampling method was seen to be a limitation, therefore generalization could be affected.

Organization of the Study

The first chapter of this thesis provides information on the background of the study. It further highlights the problem statement, purpose of the study research questions, significance of the study, delimitations and limitations that under-pinned this study. The next chapter draws on relevant literature conducted

in various countries. The Anderson conceptual framework (Anderson, 1995), was used in the current study to guide data collection and analysis of the findings. The methodology chapter describes the study type, study design, and describes the target population and sampling as well as the instrument used for data collection. It further describes the methods used to gather information and the methods of data analysis. The fourth chapter is on results and discussion. It outlines the findings from the study and also in line with the conceptual framework as per the identified study objectives. The chapter further discusses the study findings in the light of existing literature, to see if this study is consistent with findings from other research. The concluding chapter is composed of the summary, conclusions and recommendations drawn from the study findings.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter reviews literature related to the topic Adolescents knowledge, Access and usage of contraceptives in the Cape Coast Metropolis. This literature is organized thematically covering conceptual framework and topics like; what contraceptive generally means the various types of contraceptives, knowledge level of contraceptive use, the adolescent and contraceptive use, factors that influence contraceptive use among adolescent, adolescent access to contraceptive use and barriers to contraceptive use.

Information for the review was obtained from; journals, books, online articles, newspaper articles all obtained from various offline and online sources such as Google Scholar, HINARI, PUBMED, Elsevier, Science Direct, Online Wiley Oxford Journals, SCOPUS, SAGEPUB, Taylor and Francis databases.

Key words used for the web search on this topic included contraceptive use, barriers to contraceptive use, female adolescent, access to contraceptive use and knowledge on contraceptive use.

Definition of Contraceptives

Contraceptives refer to any family planning method used to prevent pregnancy (Geske, Quevillon, Struckman-Johnson, & Hansen, 2015). This is achievable by interfering with the normal process of ovulation, fertilization, and implantation. Contraception is the intentional prevention of conception through the use of various devices, sexual practices, chemicals, drugs or surgical

procedures, (Rhaki & sumatti, 2012). Choosing an effective contraception may allow a physical relationship without fear of an unwanted pregnancy and ensuring freedom to have children when desired (Shriver, 2013).

Types of Contraceptives

Currently, there are two major classifications of contraceptives. These are modern contraceptives and traditional contraceptives (Amoako, 2016). The medically accepted modern contraceptives are the barrier methods (both male and female condoms, diaphragms, cervical caps, contraceptive sponges and spermicidal), hormonal methods (combined oral contraceptives, progestin-only pills, contraceptive patch, injectable birth control, vaginal rings, implantable rods), emergency contraceptives, intrauterine methods (copper IUD and hormonal IUD) lactation amenorrhea method (LAM), and sterilization (tubal ligation, sterilization implant and vasectomy). The traditional methods are rhythm (or fertility awareness/periodic abstinence method), withdrawal (coitus Interruptus) (Amoako, 2016).

Barrier method

The barrier method comprises of the male and female condoms diaphragms and cervical cap usually used with spermicidal (Amoako, 2016). Some advantages to the barrier method may include easy availability, protection against sexually transmitted diseases and being cheap and safe (Clottey, 2012). It may be sold freely without prescription and serves as the most effective method in providing twin protection for contraception and STI infections. It may be disposed of after a single use.

The Male Condom

The male condom is a thin rubber or latex sheath (condom) which is rolled on the erect penis before intercourse. It primarily prevents semen (sperms) from entering the vagina of woman. When used correctly, it may be effective, achieving about 95% efficacy and may also be used by all age groups (Rakh & Sumathi, 2012). The major drawback in this method is related to compliance, inconsistency and incorrect use.

Female Condom

Female condom is a vaginal pouch made of latex sheath, with one ring at each end. The closed end ring is inserted inside the vagina and works as the internal anchor. The outer portion covers and protects the external genitalia. It is reliable, hypo-allergic with high acceptance in test groups although its cost could be a major deterrent to use. It is a female controlled method and protects from both unwanted pregnancy and STIs (Rakh & Sumathi, 2012).

Shriver (2013), points out that, the diaphragm are a shallow, flexible cup made of latex or soft rubber that is inserted into the vagina before intercourse, blocking sperm from entering the uterus. Spermicidal cream or jelly is often used with a diaphragm and this is used to destroy sperm. The cervical cap is a thin silicone cup that is inserted into the vagina before intercourse to block sperm from entering the uterus. It is similar to diaphragms, but smaller, more rigid, and less noticeable.

Hormonal Method

The hormonal method may consist of two hormones: estrogen and progesterone (Rakh & Sumathi, 2012).

Oral Contraceptive (Pill)

This is a pill that contains hormones taken once a day and used to prevent pregnancies, (Gentle Beginning Midwifery, 2015). It works by preventing an egg to be released during the woman's period. There are two common kinds: Progesterone only pills (mini pill) and combined oral contraceptive pill (the pill). It is very effective when used properly, regulates period and reduces flow, it may also prevent acne and cancers (that is ovarian and endometrial), it may be taken while breastfeeding and does not protect against STI's. Some side effects like breast tenderness, irregular period, weight gain, headaches and nausea may be experienced (Gentle Beginning Midwifery, 2015).

Emergency Contraceptive Pills

It is another type of hormonal pills, taken either as a single dose or two doses 12 hours apart, taken within 3 days (72 h) of unprotected intercourse (Shriver, 2013**).** It is an easy and convenient, woman-controlled method which does not interfere with love-making. There is regular monthly cycle often with reduced pain and bleeding, gain in weight and return to fertility may take time.

Intrauterine Devices (IUDs)

The (IUDs) could be hormonal or non-hormonal. Shriver (2013**),** projects that, (IUDs), are small flexible T-shaped device that is inserted into the uterus to prevent pregnancy, usually with copper, it may be inserted into the uterus by a

qualified medical practitioner, after menstruation, abortion, or 4-6 weeks after delivery. In their view, Rakh and Sumathi (2012), emphasize that an IUD can remain in place and function effectively for many years at a time. After the recommended length of time, or when the woman no longer needs or desires contraception, a health care provider removes or replaces the device.

The contraceptive patch (the patch)

The patch is of the size 4cm x 4cm and it slowly releases two hormones (progestin and estrogen) into the bloodstream and works by preventing an egg to be released during the period and can also make the uterus unfavorable for a pregnancy to be conceived for women who forget to take their pills (Gentle Beginning Midwifery, 2015).

The Injectable

These are hormone based, given in the arm or buttocks every 12-13 weeks. Making four times in a year for the depo provera while on monthly bases for the norygynon (Rakh & Sumathi, 2012). It can be taken while breastfeeding and may or may not stop the monthly flow period completely (in 50% of women). It may cause loss of bone density therefore is usually recommended only in women who can't use any other contraceptive.

Non Hormonal/ Traditional Methods

Abstinence

According to Dailard (2003), most people probably understand abstinence to mean refraining from sexual activity or, more specifically, vaginal intercourse

for moral or religious reasons, according to her, President Bush described abstinence as "the surest way, and the only completely effective way, to prevent unwanted pregnancies and sexually transmitted infections (Dailard, 2003). In addition, complete abstinence from penile-vaginal sexual contact is of course the only 100% effective method of preventing pregnancy Some partners choose abstinence due to religious or cultural considerations, some due to medical conditions, and some because it is truly the most effective way to prevent pregnancy and reduce exposure to sexually-transmitted infections.

Coitus Interruptus or withdrawal

It involves withdrawal of penis from the vagina just before ejaculation, thus preventing semen from entering the vagina of the woman. This is perhaps the oldest contraceptive method known to man, but it depends on the cooperation of the male partner (Amoako, 2016). This is not a reliable method and may fail if semen escapes before ejaculation or is left on external sex organs. To succeed in this method, there is the need for good self-control, both emotionally and physically.

Lactational Amenorrhea Method (LAM)

When a woman has had a baby and is breast-feeding, the hormones that regulate the production of milk also inhibit ovulation, thereby preventing the possibility of another pregnancy. During this time, women do not have menstrual periods (Shriver, 2013**)**. Therefore, women who are exclusively breast-feeding (that is the infant has no source of food or fluids other than the mother's breast milk), have a low risk of pregnancy about 2% in the first six months following the

baby's birth. The risk is somewhat higher in working mothers about 5% as breast pumping does not as reliably produce the same hormonal signals as the baby sucking manually. Once an infant starts to receive other food sources generally at six months this method of birth control becomes ineffective (Gentle Beginning Midwifery, 2015).

Fertility-Awareness-Based/the Rhythm Method methods

Amoako (2016), points out that, fertility awareness requires predicting ovulation, thus the period when the woman is most fertile, by recording the menstrual pattern, body temperature, or changes in cervical mucus, or a combination of these (symptom-thermal method). The method requires careful record keeping for calculating the safe period. Furthermore, Amoako (2016) says during fertile days sexual intercourse is avoided and Intercourse is limited to some days of the month only. This method cannot be used by women, who have irregular periods, or after childbirth and during menopausal years.

Female Sterilization (Tubectomy)

This is a permanent choice performed surgically. It involves the cutting of the fallopian tubes and tying the ends to prevent the sperms from meeting the eggs. It is a very reliable method and can be performed anytime, preferably after the last child's birth. Rarely, the tubes may join and fertility may return. A few women tend to have heavier periods after this method (Shriver, 2013**).**

Male Sterilization (Vasectomy)

A permanent surgical method in which, the vasa differentia which carry the sperms from the testes to the penis is blocked. This prevents the sperms from being released into the semen at the time of ejaculation. According to Shriver (2013), it is a simple and reliable method not requiring hospitalization. Contrary to popular belief, it does not affect health or sexual vigor neither does it interfere with intercourse.

Benefits of Contraceptive Use

According to the WHO (2018), contraceptives may be useful in the prevention of pregnancy-related health risks in women. A woman's ability to choose if and when to become pregnant has a direct impact on her health and well-being. Family planning allows spacing of pregnancies and can delay pregnancies in young women at increased risk of health problems and death from early childbearing. Contraceptive use may help limit the size of their families reduce rates of unintended pregnancies, and unsafe abortion.

Infant and maternal mortality will be reduced, infants of mothers who die as a result of giving birth also have a greater risk of death and poor health (Darrock & Singh, 2013). Pregnant adolescents are more likely to have preterm or low birth-weight babies these babies born to adolescents may have higher rates of neonatal mortality.

HIV/AIDS may also be prevented, by reducing the risk of unintended pregnancies among women living with HIV, resulting in fewer infected babies and orphans. In addition, male and female condoms provide dual protection

against unintended pregnancies and against STIs including HIV (Frost & Linderberg, 2012).

Women may be empowered to make informed choices about their sexual and reproductive health. Family planning represents an opportunity for women to pursue additional education and participate in public life, including paid employment in non-family organizations (WHO, 2014). Additionally, having smaller families allows parents to invest more in each child.

Children with fewer siblings tend to stay in school longer than those with many siblings (Khraif, Abdul, Abdullah, Ibrahim & Ajumah, 2017). The population growth may also be reduced since contraceptive use is paramount in slowing unsustainable population growth and the resulting negative impacts on the economy, environment, and national and regional development efforts (Blanc, 2009).

Knowledge Level on Contraceptives

A study by Skrzeczkowska et al., (2015), showed that, adolescents/young adults tend to believe that hormonal contraceptive methods were the most effective (50%) as compared to the others. About (21%) pointed to condoms and a similar percentage (21%) also pointed to intrauterine contraceptive devices and coitus interruptus (16%) all these they said were deemed less effective. These findings implied that the adolescents/young adults regarded hormonal methods as the most effective. Brown and Guthrie (2010), also explained that, the lack of contraceptive use by young women is not due to lack of knowledge but to lack of ability to apply that knowledge, especially in situations where “irrational desire”

takes over. In other settings, knowledge may be widespread but other factors, particularly alcohol, may influence the successful use of contraception.

Furthermore, Onasoga, Afolayan, Asamabiriowei, Jibril, and Imam (2016), reported that many adolescent females are at high risk of unintended pregnancy because they have limited knowledge of contraception and generally lack access to services or do not feel comfortable using these services. According to Onasoga, et al., (2016), most of the youth have heard of emergency contraception whereas accurate knowledge about its use was minimal. It was again found that 75 percent of students surveyed in Nigeria were aware of emergency contraception, but only 12 percent knew that the first dose of ECPs should be taken within 72 hours of unprotected intercourse. A study by (Asante, 2016), suggest that, contraceptive use is woefully inadequate among women in their reproductive ages therefore revisiting the issue and giving it prominence is critical.

A considerable number of factors are responsible for the low patronage among most girls and women in Ghana. These may include having little or no access to comprehensive education and information about how their body works towards the chosen contraception. In addition, spouses, family member's, community and religious leaders may be in conflict with family planning citing fears, myths, misinformation and inadequate knowledge about a particular method or pricing as well as contrasting views from theology or tradition (Ejembi, Ladi, Dahiru, & Aliyu, 2015).

The Adolescent and Contraceptive Use

The reproductive choices made by young women have an enormous impact on their health, schooling and employment prospects, as well as their overall transition to adulthood (Blanc, Trevor, Croft & Trevitt, 2009). A study led by Simigiu (2012), showed that, teen pregnancy is socially and economically a problem. Teen mothers may be psychologically immature, having no consistent skills nor the ability to ensure a steady income, unable to raise and educate her own child, facing multiple medical risks and complications at birth which may subsequently affect the child's constitution and health (Simigiu, 2012).

According to the Ghana Demographic Health Survey (2008), contraceptive usage is low among adolescents nationwide. The report revealed low levels of contraceptive use among adolescents (24.0% among females and 39.0% among males). In a similar study revealed by (Boamah, Asante, Mahama, Manu, Ayipah, Adeniji & Owusu-Agyei, 2013), 18.0% and 27.0% of adolescent females and males respectively, used condoms in their first sexual encounter. Furthermore, consistent contraceptive use with their current partners were recorded among 24.0% and 20.0% of males and females, respectively.

A study conducted by the Ghana National Demographic and Health Survey (GDHS, 2014), again showed that, 73.6% of adolescent's girls between age (15-19), have been involved in sexual activities at least once; with 19.4% still in sexually active relationships (GDHS, 2014). Accessing their utilization of contraceptives, it was rather on the low side (Komey, 2016).

The WHO (2014), reports that, about 3 million adolescent girls undergo unsafe termination of pregnancies resulting from non-contraceptive use annually. Adolescents' success in avoiding pregnancy often depends on having access to contraceptive information, methods and services

In Ghana, about 80% of adolescents know one or more forms of contraception methods however, from about 80% do not use contraception at first sex (GDHS, 2014). The most commonly used contraceptive methods in adolescents are oral contraceptive pills (OCPs) and condoms, although new hormonal delivery systems such as transdermal patches, vaginal rings, and implants are convenient and effective (Gentle Beginning Midwifery, 2015).

Factors That Influence Contraceptives Use Among Adolescent

According to Rourke, Suchoff, Arora and Vanessa (2015**).** 214 million women of reproductive age in developing countries who want to avoid pregnancy are not using a modern contraceptive method. Many factors converge to shape a woman's attitudes about the use of and the need for contraception. Another factor is ambivalence about pregnancy. In a recent study, 62 percent of women considered it very important to avoid pregnancy, 20 percent considered it only somewhat important, and 18 percent said avoiding pregnancy was of little or no importance.

Women who are ambivalent about avoiding pregnancy are less likely to use contraception and more likely to have gaps in contraceptive use that put them at risk for unintended pregnancy (Association of Reproductive Health Professionals (ARHP), 2008). Literature suggests that, prevalence of

contraceptive use among adolescents increased faster than among older women (Blanc et al., 2009). Greater proportions of adolescents discontinued use of a contraceptive method within a year or experienced contraceptive failure **(**Blanc et al., 2009).

The level of satisfaction with her chosen method is another factor that influences a woman's contraceptive use. Many women are dissatisfied with their contraceptive options. The (ARHP, 2008), reveal that, 38% of women chose their current method primarily because they did not like any other method. Nearly 40% of the women were not satisfied with their current method for reasons such as reduced sexual pleasure, anticipated side effects and worry about effectiveness.

The women who were not completely satisfied with their method tended to have gaps in use or used methods incorrectly or inconsistently, putting them at increased risk of unintended pregnancy. Most adolescent girls may not use contraception because they report of infrequent sexual habits and the fact of not being married. Incomplete knowledge source may also capacitate the incorrect and inconsistent use of contraceptives (WHO, 2012).

According to Brown and Guthrie (2010), some teenagers perceive Health practitioners to be often unsympathetic and overly judgmental therefore access to services that are designed for teenagers are not well patronized. They take into account their particular needs and fears, especially around confidentiality and visibility. This brings about dissatisfaction among young women about the behavior of the healthcare providers and negative quality of care (Awusabo-Asare & Abane, 2008).

Amoako (2016) also found that, some factors that influence contraceptive use may include misperceptions about the safety and efficacy of long acting reversible contraceptives and inadequately trained providers. Another area as confirmed by Amoako (2016), reveals instances where health care providers were unable to provide services because resources and logistics were not available. The Cost of services notwithstanding was found by Awusabo-Asare and Abane (2008), to be one of the factors influencing contraceptive use among young people.

Issues regarding sex and contraception may not be discussed at home, particularly amongst adults and young people. This is likely to limit adolescent's access to information on issues related to sex and contraception (Boamah et. al, 2013). Adolescents may feel embarrassed going to health facilities for information or services pertaining to sex and contraception because they perceive they will be met with an unwelcoming attitude at the facility given that, service providers are the same adults that they live with, in the community (Boamah et al, 2013).

Research around the world has found that utilization of modern methods of contraceptives varies with sociodermographic characteristics such as age, marital status, education, religion, number of living children, desire for more children, ever use of modern contraceptive, urban-rural residence, and wealth or socio-economic status (Abdulai, 2015). In a national survey of Kuwaiti women (Rahayu et al., 2009), cited in (Abdulai, 2015) found that women's age, parity,

educational level, and residence in urban areas were significantly and positively associated with contraceptive uptake.

The sociodermographic characteristics may determine the person's ability to understand the mechanism of action and effective use of the methods. They may also affect ability to access various types of contraceptives hence, the type of contraceptive the individual is likely to use (Atiemo, 2015). A study conducted in California described how Intrauterine Contraception (IUC) users differed from women using other contraceptives. It was found that, more women (ever married) used the IUC while few (nulliparous) women used the other types of contraceptives.

A similar result was obtained in a study on the use of long acting reversible contraceptives (LARC) among United States women using contraceptives. After adjusting for key characteristics, in comparison to non-long-acting reversible hormonal method users, married women and women over the age 35 were more likely to be LARC users. In addition, women who had ever experienced an unwanted pregnancy and women who had ever stopped using a short-term hormonal method due to dissatisfaction were all more likely to be LARC users (Kost & Henshaw, 2012).

A study carried out in Kenya revealed that, contraceptive use was highest among women aged between 20 - 39 years compared to those below 20 years and above 39 years (Akoth, 2010). The showed that, 49 percent of the women that were using contraceptives were aged 20- 29 years, 41 percent were aged between 30 - 39 years, while no woman aged 50 years and above was found to be using

any form of family planning services. Lastly, 4 percent of women who were using family planning services were less than 20 years (Akoth, 2010).

In Ghana, GDHS (2014) survey found that the use of modern contraception increases with age up to 44 years after which it declines with specific methods. The use of IUD and implant increase with age and number of living children. It was found in Ga East District of Ghana that marital status is significantly associated with use of contraceptives. In the study, married women are more than twice likely to have ever used modern contraceptive method (Ghana Statistical Service (GSS), 2013).

Access to Contraceptive Use

Access to safe and effective contraception is essential for optimal sexual and reproductive health and allows for the prevention of unintended pregnancies, improved pregnancy spacing and reduced transmission of sexually transmitted infections and HIV. However, access to sexual and reproductive health services especially contraceptive use and comprehensive sexuality education remains a challenge in many countries (Komey, 2016).

According to Hesketh and Evenson (2015), improving health care provider and patient knowledge about contraceptive methods would improve access and allow for safer use. Health care providers also may have knowledge deficits that can hamper their ability to offer appropriate contraceptive methods to their patients. For example, many clinicians are uncertain about the risks and benefits of IUDs and lacks knowledge about correct patient selection and contraindications.

The availability, accessibility and acceptability of contraceptives in many places, is not just available to anyone. Where contraceptive services are available, adolescents (especially unmarried ones) may not be able to obtain them because of restrictive laws and policies (Akoth, 2015). Even if adolescents are able to obtain contraceptive services they may not do so because of fear of their confidentiality, losing their respect or that health-care worker may be judgmental.

Crissman, Adanu and Harlow (2012), hypothesized that, for some women, a lack of sexual empowerment may prevent them from achieving sexual and reproductive health. For example, a woman with access to and knowledge of contraceptives may feel unable to use them if she does not see reproductive and sexual health and autonomy as her right.

Adjei, Sarfo and Aseidu (2014), posit that most women in Ghana especially the urban areas have grown resistance to the hormonal methods, based on prior experience of its side effects. This is because they are particularly educated and may use periodic abstinence or reduced coital frequency as an alternative to modern contraception. Among the adolescent access to good quality information and the availability of contraceptive choices are crucial to family planning programs targeting not only adolescents but the general population as well (Adjei et al., 2014).

A strong relationship has been found between female education. Especially, females who have completed primary education and those who have entered into secondary level. Ejembi, Dahiru and Aliyu (2015), in their study reported that women's education has a strong positive impact on the access to

contraceptive use. Nigerian women with tertiary level education are one and half times more likely to have ever used contraception than women with secondary education.

Most often, financial insecurity limits women access to reproductive services. In terms of the adolescents, they are economically dependent on their parents and partners (for those in relationships) for financial assistance. Only a few may be found working at this stage. When the relationship suffers economic insecurity, it may have a profound impact on the adolescent's contraceptive use (Komey, 2016). It may, for example, be impossible for adolescents to meet the financial costs of transport to health-facility for preferred service. Similarly, clinic fees and the cost of contraceptives themselves may not be affordable to adolescents.

Barriers to Contraceptive Use Among Adolescent

Adolescents have a right to health, contraceptive use and a right to receive accurate information and confidential services, but they currently experience many barriers to the utilization of essential services. According to Gueye, Speizer, Corroon, and Okigbo (2015), myths and misconceptions are one of the important barriers to contraceptive use. They said that, the exaggerated or erroneous reports about side effects, misconceptions about short or long term health problems and negative stereotypes about persons who practice family planning may entirely prevent one from its use.

Again, Gueye, Seizer and Okigbo (2015), in a study at Kenya reported that, most respondents indicated that, the pill (contraceptive) "can accumulate into

a life-threatening mass in the stomach, cause blood to flow out of the nose and mouth and cause delivery of children with two heads and no skin." About the side effects of modern contraceptives they cause infertility or can harm a woman's uterus.

A study by the WHO (2018) reveals that, most adolescents may face barriers to accessing contraception. These may include restrictive laws and policies regarding provision of contraceptive based on age or marital status, health worker bias and/or lack of willingness to acknowledge adolescents' sexual health needs and adolescents' own inability to access contraceptives because of knowledge, transportation, and financial constraints. Additionally, even when adolescents are able to obtain contraceptives, there may be the pressure to have children, stigma surrounding non-marital sexual activity and/or contraceptive use, fear of side effects and lack of knowledge on correct use may prevent her from using it.

System and Structural Barriers

In many developing countries, providing universal access to sexual and reproductive health care is beyond the capacity of the country. In some cases, even if the health facilities exist, there is not enough trained staff to provide the needed services with supplies of drugs and contraceptives often lacking (Woog, Singh, Browne & Philbrin, 2015). Weak infrastructure for health, communications and transport can make access to services in rural areas particularly difficult especially access to maternal health care, which often relies on referrals to higher-level facilities to prevent mortality. According to Woog et

al., (2015), other important structural barriers that prevent young people from using contraceptives may include inconvenient location, hours of operation of facilities, the cost of services and not knowing where services exist.

Social Norms and Legal Restrictions

One of the greatest barriers adolescents face in obtaining sexual and reproductive health services is social stigma. Cultural norms around adolescent sexuality may discourage young people from seeking the services they need. Adolescents often report that they do not seek services due to fear of being stigmatized or punished for having been sexually active. Sexually active unmarried women are at a particular disadvantage (Woog et al, 2015).

Facing barriers such as legal provisions or community norms exclude them from receiving the necessary information, counseling and services. In many countries, young people under age may require parental consent to obtain medical care, including HIV testing and counseling (WHO, 2018). In some countries where sexual activity under the age of 16 is illegal, health care providers may not be allowed to maintain patient confidentiality when serving young adolescent.

Provider Bias

There are several barriers that prevent the uptake and use of contraception. Most often when promoting contraceptive methods there is a failure to understand the culture in which the potential users reside (WHO, 2018).There are often various attitudes and fears in regards to the perceptions of menstruation and even touching the genitalia.

In several cultures and countries, especially in Africa, large families are seen as the norm and are respected, therefore the fertility levels tend to be higher and contraception use tends to be lower (Woog, et al. 2015). There is also a distrust of different outside providers and the contraception pills might be mistakenly seen as a form of sterility drugs. A few other barriers are the young marital ages, the lack of women's empowerment and the high gender inequality.

Socio- Cultural Influence on Contraceptive Use

Researchers argue that some religious values can influence a woman's decision on the method of contraceptive to use. This is because, some religious systems associate pronatalism as divine blessing and infertility as a curse and this could motivate reversals in fertility preferences (Murzyn, 2014). A religious sect like the Catholic Church and many others' stance against the use of contraceptives affects people's attitudes and consequently their use of modern contraceptive methods (Murzyn, 2014).

According to Bakibinga, Mutombo, Mukiira, Kamande, Ezeh and Muga (2015), the Roman Catholic is of the view that, sex results in procreation however; ungoverned deliberate passion for sex may result in unintended pregnancies. Preventing unwanted pregnancy by using contraceptives may take away the full function of the human body, a body made in the image and likeness of God (Bakibinga et al, 2015). In addition they submit that the use of modern contraceptive methods such as condoms or the pill may not be immoral, but its use in the prevention of pregnancy is violation against creation.

The Protestant Christian views contraception to be adequate especially within a marriage that already has children, because they view contraception as exercising responsible parenthood, protecting women's health and improving marital love. However, Evangelical and Fundamental Protestant as well fundamental Muslims maintain that all form of contraception violates God's law and intentions (Bakibinga et al., 2015).

Family Planning (FP) services may be available but may not be socially accepted as a result cultural influences that hinder uptake. On the issue of ethnicity, some studies have revealed ethnic differences in contraceptive use. A study looking at ethnic differences in contraceptive acceptance in the rural Guatemala showed great variation of contraceptive use across various ethnic groups (Ouma, 2010). In Ghana, ethnicity has been shown to be a determinant of contraceptive use among the Fante/other Akans ethnic groups (Ouma, 2010). However, the afore mentioned study also showed that the contraceptive use differentials between other ethnic groups were a result of differences in socioeconomic and demographic characteristics of the individual women.

Furthermore, some of the traditional African religion believe that, reproduction remains the most important outcome and purpose of life as it is believed to appease ancestors whose spirits are satisfied through the childbearing of descendants (Adjei, Sarfo & Asiedu, 2014). Therefore, fertility is seen as a god sent and results in high status among people who have many children, whereas childlessness is perceived as a punishment for sin and evil (Abdulla,

2014). Hence, the use of modern contraceptives is stigmatized, thus posing as a barrier towards accessing family planning services.

In some countries such as Swaziland, women will not use contraceptives because the loss of fertility might jeopardize their social status as their potential husbands may shun them which could leave them with a lifelong stigma of being infertile, or sub fertile and/or unmarried (Ziyani., Ehlers, & King, 2003). Nevertheless, the dominant "male attitudes" might interfere with the women's expressed desires to control their families' sizes. For example, in the Swazi culture a husband may be a significant constraint to the use of contraceptives (Ziyane et al., 2003). In the Ghanaian society, it is worthy to note that marriage and child bearing are important and cherished and a source of social status and prestige (Adjei et al., 2014).

The social prestige of an adult in traditional Ghanaian society is enhanced by their marital status and the number of children that they have (Boateng, 2013). Childlessness is also frowned upon in Ghanaian society and carries with it some degrees of social stigma. Unmarried adults and childless couples would normally be regarded as immature and irresponsible and may not be invited to participate in certain traditional and social functions (Adjei et al, 2014). According to Boateng (2013), customarily, large family sizes are the preferred norm and the prayer offered for potential couples is "may you have thirty children." As a matter of fact failing to reproduce enough children may be sufficient grounds for the dissolution of a marriage.

Another cultural factor that contributes to the high fertility rate in the Ghanaian society is the continued practice of polygamy. Having more than one wife is seen as enhancing the status of men in the society. An important factor however, is that the more wives a man has, the more children he is likely to have, as each wife has to bear children in order to justify her social position. In some cultures, 'to have children is to rise from the dead'.

The conceptual framework on the factors influencing Contraceptive use among adolescent

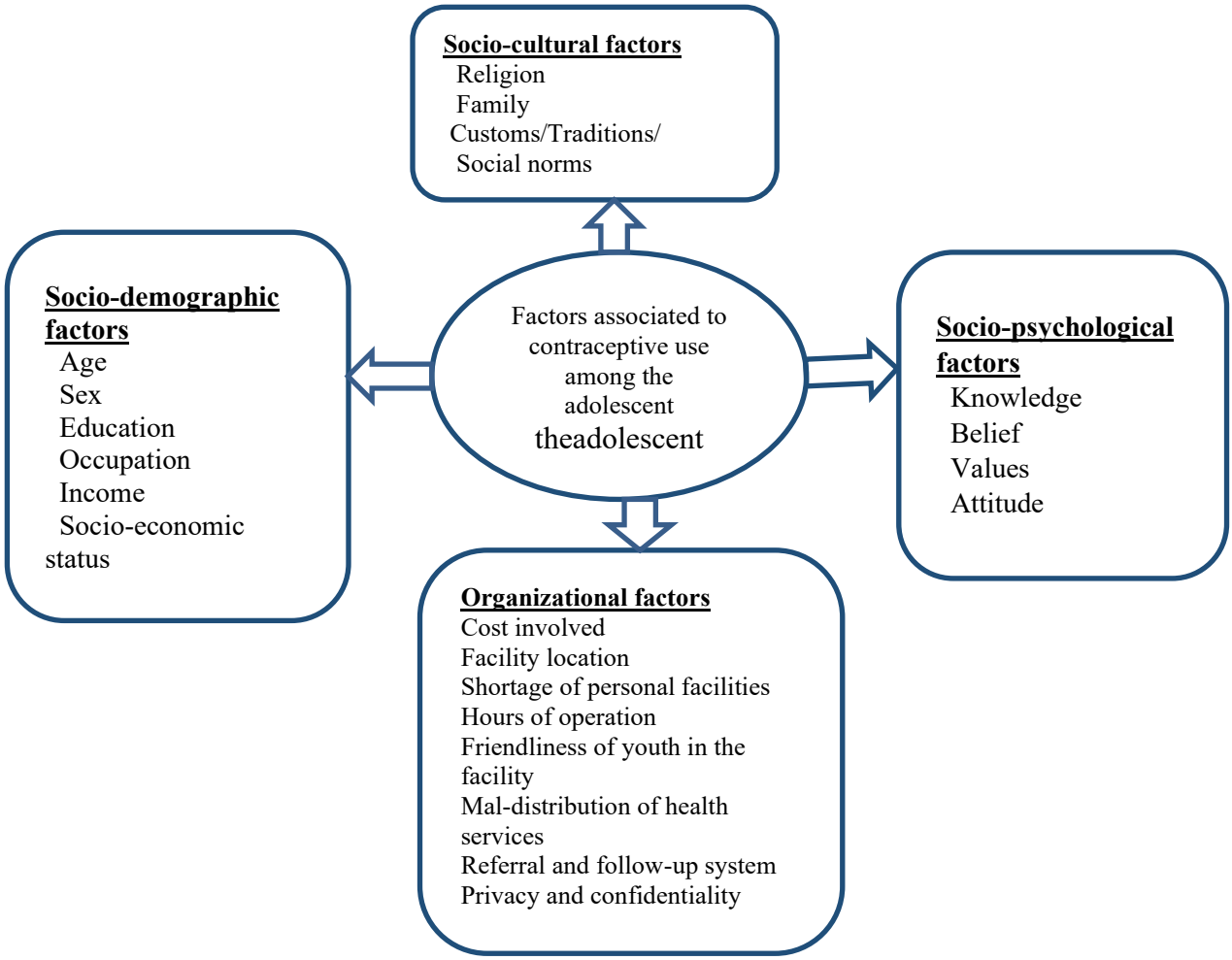

Figure 1: Andersons Health Services Utilisation Frame work
Source: (Adapted from Anderson's Health Services Utilization model, 1995, Maotwe, 2014).

Explanation of the Conceptual Frame Work

For the purpose of this study, the Anderson's Health Services Utilization Framework, (see Figure 1) was used to capture the possible factors associated with contraceptive use amongst female adolescent in the Cape Coast metropolis. This framework was developed by Andersen (1995), to ascertain conditions that facilitate or impede utilization of services by individuals.

The predisposing factors within the model include socio- demographic, socio- psychological, the organizational and the sociocultural dimensions. All these factors can act as barriers or facilitators to adolescent's access, acceptance or use of contraceptives.

The socio-demographic profiles of individuals help create a clear description of each person. As indicated earlier research around the world has found that utilization of modern methods of contraceptives varies with sociodermographic characteristics such as age, marital status, education, religion, number of living children, desire for more children, ever use of modern contraceptive, urban-rural residence, and wealth or socio-economic status. These characteristics may determine the person's ability to understand the mechanism of action and effective use of the methods (Atiemo, 2015).

A strong relationship has been found between women's education, especially those who completed primary education and those who entered into secondary level (Ejembi et al., 2015). It has been reported that women's education has a strong positive impact on contraceptive use (Ejembi et al., 2015). Partner's level of education is equally important, as it may operate through many of the

same pathways (childbearing preferences) as the woman's own education, given that education levels of husbands and wives are positively correlated (Malwade 2002) cited in Ejembi et al., (2015). Level of education is a predictor of socioeconomic status, which correlates with contraceptive use. Thus, women of lower socioeconomic status have lower uptake rates of contraceptives.

The Ghana Demographic Health Survey (2008), found that the use of modern contraception increases with age up to 44 years after which it declines with specific methods. The use of IUD and implant increase with age and number of living children. It was found in Ga East District of Ghana that marital status is significantly associated with use of contraceptives. In the study, married women are more than twice likely to have ever used modern contraceptive method (Akoth, 2010).

The social-psychological dimension mainly explains the way individuals think, feel and do things depending on the situations they are faced with, more especially with regard to decision making to seek medical help. During adolescence young people undergo physiological and biological changes, which pose a major challenge to them with regard to making decisions about their health and their health seeking behaviours.

Most adolescents find it difficult obtaining information with regards to sex and contraception. Guardians at home may fail to provide the necessary information on sex and contraception. This scenario is likely to limit adolescent's access to information on issues related to sex and contraception (Boamah et al., 2013).

The next important source of information could be health facilities. However, adolescents feel embarrassed going to these facilities for information or services pertaining to sex and contraception due to the fact that, they perceive that they will be met with an unwelcoming attitude at the facility given that service providers are the same adults that they live with within the community (Boamah et al., 2013).

Organizational factors in this study will refer to structures or facilities for provision and promotion of contraceptive use to the adolescent. Variables like location of the facility, the hours of operation and the actual physical structure can affect the way adolescent utilize family planning services. Furthermore, availability of resources like human and finances can also be influential. Finally, availability of services for adolescents and the manner in which the facilities run, including follow-up mechanisms, behaviour and attitudes of staff and confidentiality and privacy to clients is also crucial in all organizations (Mawote, 2014).

All these listed variables often act as barriers to prevent the effective use of modern contraceptive methods (Woog et al., 2015).

It has been noted earlier that, some religious and cultural values can influence a woman's decision on the method of contraceptive use. Childlessness is also frowned upon in Ghanaian society and carries with it some degrees of social stigma. Unmarried adults and childless couples would normally be regarded as immature and irresponsible and may not be invited to participate in certain traditional and social functions (Boateng, 2013). Customarily, large family

sizes are the preferred norm and the prayer offered for potential couples is "may you have thirty children." As a matter of fact failing to reproduce enough children may be sufficient grounds for the dissolution of a marriage.

Furthermore,some the traditional African religion believe that, reproduction remains the most important outcome and purpose of life as it is believed to appease ancestors whose spirits are satisfied through the childbearing of descendants (Adjei, Sarfo & Asiedu, 2014). The Protestant Christian views contraception to be adequate especially within a marriage that already has children, because they view contraception as exercising responsible parenthood, protecting women's health and improving marital love.

However, Evangelical and Fundamental Protestant as well as fundamental Muslims maintain that all forms of contraception violate God's law and intentions (Bakibinga et al., 2015). Some communities do not openly discuss contraceptives, due to strong cultural and religious beliefs, hence usage is low and adolescent get exposed to the increased risk of unwanted or unintended pregnancies (Clottey, 2014).

Chapter Summary

In this chapter, contraceptive was defined as the application of family planning methods to prevent pregnancy. We saw the two major classifications of contraceptives to be modern contraceptives and traditional contraceptives. Modern contraceptives include the use of condoms, diaphragms, cervical caps, contraceptive sponges and spermicidal. Others are hormonal methods, emergency contraceptives, intrauterine methods (copper IUD and hormonal IUD), lactational amenorrhea method (LAM), and sterilization (tubal ligation,

sterilisation implant and vasectomy). The traditional methods are rhythm and withdrawal (coitus interruptus).

Among the benefits of contraceptives, it was said that they allow spacing of pregnancies, limit the size of families, reduce rates of unintended pregnancies, and unsafe abortion. More important, they delay pregnancies in young women at increased risk of health problems and death from early childbearing.

In spite of the inherent benefits, it was pointed out that, in Ghana contraceptive use is inadequate among women in their reproductive ages. Among the reasons given is the lack of knowledge about how the body reacts to contraception, cultural or religious opposition, fear or experience of side-effects, myths, misinformation and inadequate knowledge about a particular method or pricing as well as contrasting views from theology or tradition (Ejembi, Ladi, Dahiru, & Aliyu, 2015).

A number of barriers were identified including system and structural barriers, social norms and legal restrictions, provider bias and Myths and misconceptions were identified as one of the important barriers to contraceptive use. Also implicated are restrictive laws and policies regarding provision of contraceptive based on age or marital status, and adolescents' own inability to access contraceptives because of knowledge, transportation, and financial constraints.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter describes the study area, research design, the variables, the study population, sample size, sampling method, data collection methods, quality control, data processing and analysis, and ethical considerations.

Study Design

For the purpose of this research the descriptive research design was used. It attempts to examine situations in order to establish what the norm is, what can be predicted to happen again under the same circumstances (Kothari, 2004). It also provides a description for the people in the study. The descriptive and analytic design may be useful to this study by observing participants in a natural and unchanged environment. Creswell (2013) argues that, despite its merits there are still some limitations. Participants or subjects of the study may not be truthful or may not behave naturally when they know they are being observed.

Study Area

Cape Coast Metropolitan Assembly is one of the seventeen (17) districts of the Central Region where its capital is Cape Coast. The Central Region occupies an area of 9,826 square kilometers, which is about 6.6% of the land area of Ghana. It is bounded in the south by the Gulf of Guinea, on the west by the Western region. The region shares a border on the east by the Greater Accra region and in the north with the Ashanti and the north east with the Eastern region. The Central region has an estimated population of 169,894 (Ghana Statistical Service, Population and Housing Census, 2010). The population was

found in the Cape Coast metropolis which is an urban part of the Central Region of Ghana.

Study Variables

For this study, the dependent variable of interest was the influence of contraceptive use on the adolescent.

The independent variables that were examined in this work were:

1. Knowledge of contraceptive use
2. availability or accessibility of contraceptive use
3. rate of contraceptive usage
4. barriers to the use of contraceptive; all among adolescents

Study Population

The study population comprised adolescents in the Cape Coast Metropolis. The accessibility population was adolescent girl student specifically, in three selected schools namely: Pedu J.H.S, St. Augustine J.H.S and Bakatsir J.H.S**.** These female students were between ages 12– 19 years and about 200 in number.

Inclusion and Exclusion Criteria

This study included adolescents between 12-19 years who were in Junior High School in the Cape Coast Metropolis. This implies that adolescents under 12 years and above 19 years were excluded in the study. Adolescents who were not in the Cape Coast Metropolis were similarly excluded as well as adolescents who were not willing to take part in the study.

Sampling Frame

A sample is a part drawn from a larger whole**.** The sampling frame however, is the source material from which a sample is drawn or a set of elements from which a researcher can select a sample from the target population (Michael, 2004). The sample size used for this study was drawn from a pool of girls from a list provided by the schools.

Sample and Sampling Procedure

The study employed the random sampling technique in selection of the schools. The names of the schools were written on pieces of papers and folded into a basket, while three of the schools were picked at random. The purposive sampling technique (non – probability) sampling method was further used to select the population of interest. This means that, the researcher feels the sample selected are those who would be able to provide the needed information (Cohen, Marion & Morrison, 2007)

Determination of the Sample Size

The total adolescent population from the three schools was 200. A sample was drawn to make an inference about the adolescent population and as well help draw relevant conclusions. In order to determine an appropriate sample size for the study, Yamane (1967) proportion population formula was used in calculating the sample size needed to represent the given population. The formula is as follows;

$$n = \frac{N}{1 + N(e)^2}$$

Where,

n = sample size

N = population size

e = the level of precision or sampling error.

The sample size was estimated as follows.

$$n = \frac{200}{1 + 200(0.05)^2}$$

n = 133.3

Hence, a sample size of 133 was supposed to have been used for the study. To account for non-response rate a 10% upward adjustment was calculated, which equaled 13 respondents. The adjusted final sample size for the study should therefore have been 146. However, a total number of 150 participants were used in the study.

Table 1. Presents the total number of students in each school, the proportion that each school contributed to the sample, and the actual number of students drawn from each school.

Table 1: Adolescents sampled from 3 Junior High Schools in Cape Coast Metropolis

Name of School	Total no. of students	% of sample	No. sampled
Pedu J.H.S	90	45	67
St.Augustine J.H.S	50	25	38
Bakatsir J.H.S	60	30	45
Total	**200**	**100**	**150**

Data Collection Instrument and Procedure

Data collection for the study was done using quantitative methods to gather information on the subject. The main instrument that was used to gather research data was the questionnaire (See Appendix A). Data was collected from both primary and secondary sources. The primary data was chiefly collected through the use of questionnaire, while the secondary data was obtained from both published and unpublished documents, articles, and books. These data were collected from sources such as Ghana Demographic and Health Surveys (GDHS), existing reports and other relevant materials.

The sources also included internet sources and other published literature, academic journals and resources were also utilized. Other library materials relevant to the study were also consulted. Before the collection of data, the researcher assembled the teachers in charge of other extra curricula activities who were willing to help in the procedure and provided them with the necessary information they would need concerning the questionnaire. They were informed about the aim of the study, procedures and data collection techniques and then went through the questionnaire, question by question.

The first section covered the demographic information of respondents and the rest of the questions were based on the research questions. The questions formats were both close and open ended. The close-ended format questions took the form of a multiple-choice type of question while the open ended gave room for the participant to provide their own answers. Questions used were short with simple sentences, and free from embarrassment.

Validation of Instrument

In order to validate the instruments, questionnaire instrument was pilot-tested to identify and solve any confusing points or areas. This was done in English, and explained in the local dialect when the need arose.

Pre -test of the Study Instrument

Pilot- testing of the questionnaires was carried out at the OLA Girls Junior High School and was administered to adolescent between 12 to 19 years in OLA Girls Junior high School. The main reason for the pilot- testing was to ascertain the reliability and validity of the test. Therefore, this paper used face validity to ensure the students had better understanding of the questions.

Ethical Consideration

Permission to conduct the study was sought from the University of Cape Coast, Institutional Review Board. Informed consent was sought from the study participants as well as their parents or guardians so that they could make free decisions in their involvement. Respondents did not receive any incentives to participate in this study and no participant was forced or coerced to answer questions they did not wish to answer. Participants were assured of confidentiality and anonymity by using study codes on data documents (for example, completed questionnaire). Encrypting of data was also used.

Identifiable data containing identifiers (for example, names and addresses) were removed from the survey instruments containing data after receiving from study participants. Documents were properly disposed of by destroying data or deleting it from study data / documents. Name, addresses, mobile phone numbers

were also not collected from participants. However, opportunity for respondents to withdraw from the study if they felt like doing so was emphasized.

Data Storage and Management

Data was securely stored within locked locations, while security codes were assigned to computerized records to prevent anyone outside the project from connecting individual subject with their responses. Data was stored in a manner that ensured its authenticity and integrity as well as meeting all legal and confidentiality requirements. Back-ups of data were frequently done to protect against a number of risks including human error, hardware failure, software faults and power outages.

Data Processing

At the end of the administration of questionnaires; they were checked for completeness and internal consistencies. Questionnaires were given unique identification (ID) numbers and entered manually into SPSS version 16 which was used for the analysis. Counter checking was done to detect any discrepancies and make the necessary corrections where the need arose.

Data Analysis

Regarding participants' knowledge on contraceptives, 15 items were used in measuring the knowledge level. The following criteria were used: (0 – 6) = Poor, (7 – 9) = Satisfactory, (10 – 12) = Good, and (13 – 15) = very good. Participants whose score was within the range of 0-6 were termed as having low or poor knowledge while those in the range of 13-15 had very good knowledge. To find out whether the levels of contraceptive utilisation differed based on the knowledge levels of the respondents, the non-parametric equivalent of the One-

way ANOVA was employed. The Kruskal-Wallis was used to find out the rate or extent of utilisation of the contraceptives. Notwithstanding, descriptive statistics was also used in summarizing data into percentages, proportions and frequencies

The study also sought to find out whether the levels of contraceptives utilisation differed based on the knowledge levels of the respondents. Given that the level of utilisation (dependent measure) was a continuous measure and the knowledge level (independent measure was a categorical measure, the between-groups One-way analysis of Variance (ANOVA) would have been the appropriate statistical tool. However, tests of normality (Table 5 and Figure 2) showed that the level of utilisation was not normally distributed. The ANOVA was therefore not appropriate for the analysis. The non-parametric equivalent of the One-way ANOVA was therefore employed to find out if utilisation differed on the basis of level of knowledge about contraceptives.

Conclusion

In conclusion, this chapter described a quantitative research method employing a descriptive analytical design for the study. The study population comprised adolescents from three (3) junior high schools in the Cape Coast metropolis. These students were sampled through a purposive sampling strategy in each school. A self-administered questionnaire was designed to collect data after obtaining consent from participants and teachers. The questionnaire was pilot tested prior to the study. Data was coded and captured using SPSS version 16, which was then used to analyze the data with ethical procedures observed throughout the study process.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the results of the study. Here, the researcher presents systematically how the data on the four research questions were analysed. It focuses on the socio-demographic characteristics of respondents, knowledge level of contraceptive use, accessibility or availability of contraceptives and the barriers to contraceptive use among adolescent.

A total number of 150 adolescent girls between the ages of 12-19 years were interviewed. The data were obtained from the Cape Coast Metropolis and specifically from three selected junior high schools: Pedu J.H.S., St Augustine J.H.S., and Bakatsir J.H.S. with a sample size of 67, 38 and 45, respectively.

Table 2: Socio-demographic Characteristics (n=150)

	Frequency	Percentage (%)
Age		
10 - 12	25	16.7
13 - 15	75	50
16 - 19	47	31.3
Form		
JHS 1	49	32.2
JHS 2	53	34.9
JHS 3	47	30.9
Missing Nos	3	2.0
Religious Affiliation		
Christian	134	88.2
Islamic	10	6.6
Traditional	4	2.6
Missing Nos	4	2.6

Source: Field work, (2018)

Table 2 Continued

	Frequency	Percentage (%)
Guardian's Level of Education		
No formal education	20	13.2
Primary	7	4.6
JHS 1	55	36.2
JHS 2	53	34.9
JHS 3	47	30.9
Missing Nos	3	2.0
Religious affiliation		
Christian	**134**	**88.2**
Islamic	**10**	**6.6**
Traditional;	**4**	**2.6**
Missing Nos	4	2.6
Occupation		
Government worker	37	24.3
Artisan	103	24.3
Security service	9	5.9
Missing Nos	3	2.0
Age Of Menarche		
9-12 years	39	25.7
13-15years	94	62.8
16-19years	3	2.0
Missing Nos	16	10.5

Socio-Demographic Characteristics of the Respondents

This section presents the distribution of socio demographic characteristics by age, form, religious affiliation, guardian level of education, occupation of guardian, and age of menarche. Table 2, outlines that, majority of the respondents 75(50%) were between the age range of 13 and 15 years. Respondents from the J.H.S. 2 class 53(34.9%) were more than the J.H.S. one, 49(32.2%) and J.H.S three, 47(30.9%) students. A greater portion of the students were Christians, 134(88.2%), while 4(2.6%) of them professed to be traditional worshipers.

Concerning their guardian's level of education, majority of their guardians 55(36.2%) had completed Junior high schools, while 7(4.6%) had also graduated from the primary school and 20(13.2%) of them were found to be illiterate. In terms of occupation, most 103(67.8%) of their guardians were artisans and as a fishing community, it appears most of their guardians were either fishermen or fish mongers. Majority 94(61.8%) of them had their menarche between ages (13-15).

Table 3: Knowledge on Contraceptives (n=150)

	Agree		Disagree		N/A	
	f	%	F	%	f	%
Contraception is the use of various devices, drugs to reduce pregnancy.	101	66.5	49	32.3	2	1.3
Sterilization is a type of contraceptive	71	46.7	73	48.1	8	5.3
Dizziness is a side effect of contraceptive	61	40.1	84	55.3	7	4.6
Headache is a side effect of contraceptive	71	46.7	76	50.0	5	3.3
Weight gain is a side effect of contraceptive	66	43.5	80	52.7	6	3.9

Source: Field work, (2018)

Table 3 Continued

	Agree		Disagree		N/A	
	F	%	F	%	f	%
Groin or calf pain is a side effect of contraceptive	47	30.9	100	65.8	5	3.3
Condoms are reusable	26	17.1	122	80.3	4	2.6
Condoms can protect against STIs	96	63.2	51	33.6	5	3.3
Condoms can easily tear during sexual intercourse	99	45.1	49	32.3	4	2.6
One could become promiscuous by using contraceptives	68	44.7	81	53.3	3	2.0
Contraceptive use provides 100% protection from pregnancy	67	44.0	79	52.0	6	3.9s
Intend to wait until I get married to have sexual intercourse	125	82.3	24	15.8	3	2.0
Contraceptive is for both male and female	99	65.1	48	31.6	5	3.3
One unprotected sex can make a girl pregnant	117	77.0	32	21.2	3	2.0
Contraceptive use is beneficial in preventing pregnancy	100	65.8	48	31.5	4	2.6
Contraceptive use is beneficial in reducing unintended pregnancy	85	55.9	64	42.1	3	2.0
Contraceptive use is beneficial in reducing pregnancy-related morbidity	89	52.0	70	46.1	3	2.0
Contraceptive use is beneficial in helping women and couples time and space	94	61.8	51	33.5	7	4.6

Knowledge Level on Contraceptives use

Table 3, indicates that respondents had a fair knowledge on contraceptives use. Majority of them 117(77.0%) knew that, one unprotected sex could make a girl pregnant, while 99(61.8%) knew about the benefits of contraceptive use. Meanwhile, 99(45.1%) also knew condoms could tear easily during sexual intercourse and 122(80%) disagreed to the fact that condoms were reusable.

More than half, 125(82.3%) also documented that they wanted to wait till they got married before having any sexual intercourse.

Table 4: Respondents' Level of Knowledge

Level	Score Range	Frequency	Percentage (%)
Poor	0 – 6	26	17.3
Satisfactory	7 – 9	51	34.0
Good	10 – 12	56	37.3
Very good	13 – 15	17	11.3
Total		150	100.0

Source: Field work, (2018)

Table 4 shows noteworthy features of the level of Amongst the adolescents, a greater number of them 56 (37.3%) with a score range between (10 – 12) were found to have considerably good knowledge on contraceptive use, benefits side effects and sources. knowledge of respondents. Amongst the adolescents, a greater number of them 56 (37.3%) with a score range between (10 – 12) were found to have considerably good knowledge on contraceptive use, benefits side effects and sources. About 51(34.0%) within the score range of (7-9) were found to have satisfactory knowledge on contraceptive use. A few of them 26(17.3%) fell between the score range of (0 – 6) demonstrated poor knowledge on contraceptive knowledge. However, 17(11.3%) fell between the score range of (13 - 15). These, were found to be very knowledgeable on contraceptive use. On the average, most of them knew something about contraceptive use.

Table 5: Tests of Normality between the level of knowledge and utilization of contraceptives

		Shapiro-Wilk		
	Knowledge level	**Statistic**	**Df**	**Sig.**
Utilization	0 – 6	.729	21	.000
	7 – 9	.772	49	.000
	10 – 12	.667	54	.000
	13 – 15	.779	18	.001

Source: Field work, (2018)

Differences in Contraceptives Utilization with respect to level of knowledge

The study also sought to find out whether the levels of contraceptives utilisation differed based on the knowledge levels of the respondents. Given that the level of utilisation (dependent measure) was a continuous measure and the knowledge level (independent measure was a categorical measure, the between-groups One-way analysis of Variance (ANOVA) would have been the appropriate statistical tool. However, tests of normality (Table 5 and Figure 2) showed that the level of utilisation was not normally distributed. The ANOVA was therefore not appropriate for the analysis. The non-parametric equivalent of the One-way ANOVA was therefore employed to find out if utilisation differed on the basis of level of knowledge about contraceptives

Both the Shapiro-Wilk and the Q-Q plot (Figure 2) showed that the dependent measure (utilisation) violated the normality assumption for between-groups ANOVA. As can be observed from the normal Q-Q plot of utilisation (Figure 2), the dots for all the age categories did not cluster along the line of best-

fit, indicating that the distribution of the data on utilisation was not normally distributed

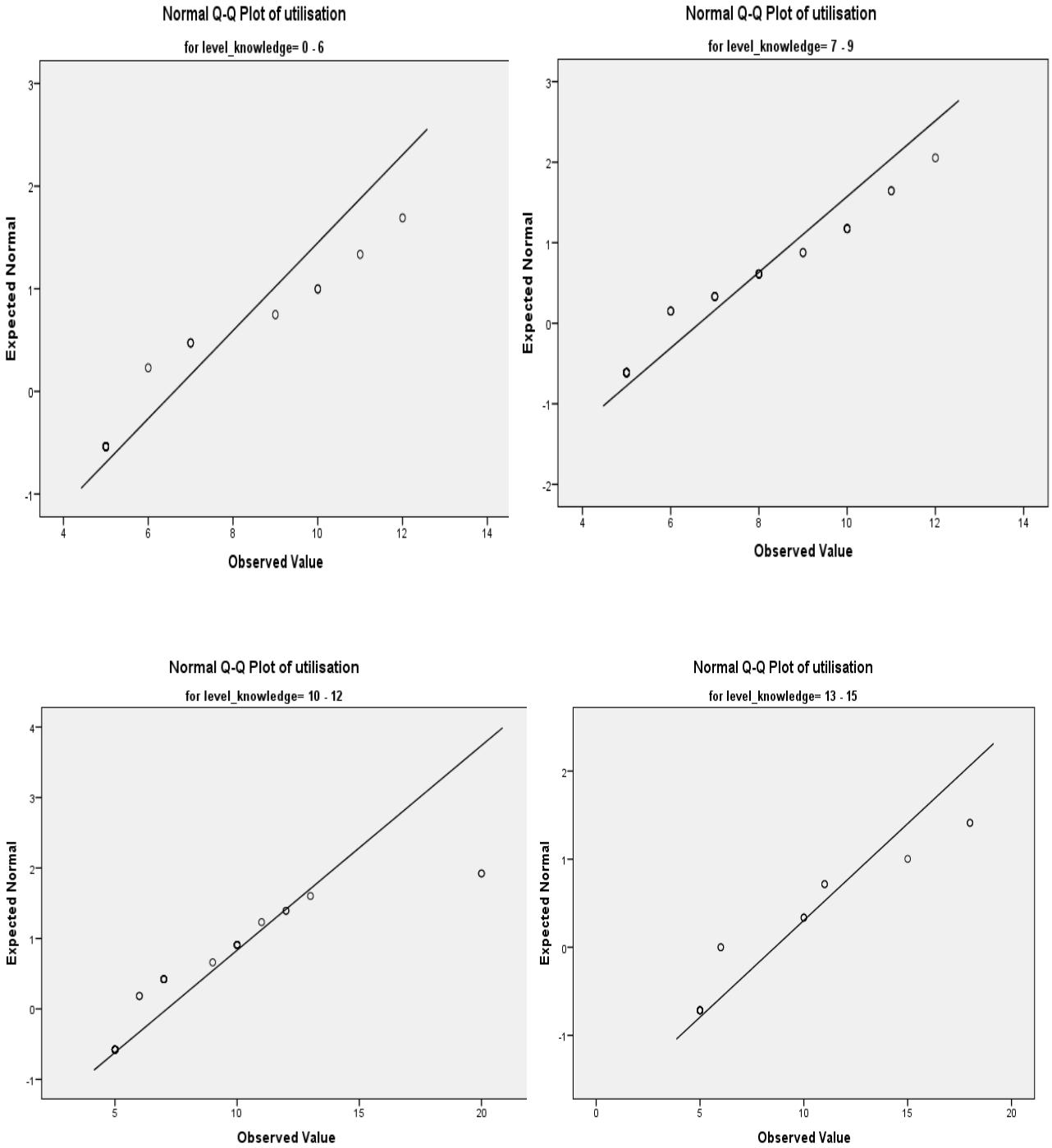

Figure 2: Normal Q-Q plot of utilisation

Table 6 shows the number of respondents who fell within different levels of knowledge about contraceptives and the mean scores of the extent of utilisation by each category. A cursory look at the results suggests that utilisation increases with increase in knowledge level. For instance, knowledge level from 0-6 corresponds with the least utilisation mean score (67.90), with the highest utilisation mean score corresponding with knowledge level of 13- 15.

Table 6: Knowledge level categories and number of respondents in each category and means of levels of utilisation

Knowledge level	N	Means of Utilisation
0 – 6	26	67.90
7 – 9	52	69.88
10 – 12	54	70.44
13 – 15	18	83.28

Source: Field work, (2018)

Table 7: Kruskal-Wallis Test of equality of utilisation of Contraceptives among age categories

	Utilisation
Chi-Square	2.072
Df	3
Asymp. Sig.	.558

Source: Field work, (2018)

The Kruskal-Wallis was used to find out if the extent of utilisation of contraceptives differed significantly among the categories of knowledge level (Table 6). Using the Kruskal-Wallis, the result showed that there were no

significant differences among the categories of levels of knowledge regarding the use of contraceptives (Table 7).

Table 8: Accessibility of contraceptives

	Agree		Disagree		N/A	
	f	%	f	%	F	%
Contraceptives could be accessed at supermarkets	62	40.8	84	55.3	4	3.9
Contraceptives could be accessed at hospitals	94	61.9	51	33.5	5	4.6
Contraceptives could be accessed at the pharmacy	110	72.4	39	25.6	1	2.0
Contraceptives are Affordable	103	67.8	44	29	3	3.3
I can access family planning facility every time	70	46.1	77	50.6	3	3.3
Staff at the family planning unit is cordial	72	47.3	74	48.7	4	3.9
Family planning clinic opens at convenient hours	84	55.2	65	42.8	1	2.0

Source: Field work, (2018)

Table 8 Continued

	Agree	Disagree	N/A		Agree	Disagree
	f	%	f	%	F	%
Waiting time at the family planning is short	70	46.1	77	50.6	3	3.3
Distance is not a hindrance to accessing contraceptives	83	54.6	63	41.4	4	3.9

Source: Field work (2018)

Accessibility of Contraceptives

Table 8 shows that majority of the respondents 110(72.4%) knew contraceptives was available at the pharmacy while 84(55.3%) of them could tell that contraceptives could be accessed at the supermarket. 103(67.8%) were able to point out that contraceptives were affordable. 94(61.9%) of them also said, family planning clinic opened at convenient hours. 83(54.5%) confirmed that distance was not a hindrance to accessing contraceptives, however, 77(50.6%) said waiting time at the family planning was not short, meaning they waited for long hours. Concerning the attitude of staff or personnel, it was seen that, 74(48.7%) of the staff at the family planning unit were not cordial to their clients (adolescents). According to respondents even though clinics were opened at convenient hours, 77(50.6%) could not access the family planning facility every time.

Table 9: Religious Barriers (n=150)

	Agree		Disagree		N/A	
	F	%	F	%	f	%
I freely discuss contraceptive use at church	52	34.2	97	63.8	1	2.0
My religion promotes the use of contraceptives	52	34.2	97	63.8	1	2.0

Source: Field work (2018)

Religious Barriers

It is evident from the table 9 that, religion does not support the use of contraceptives amongst the adolescent. This is because, 97(63.8%) of the respondents could not freely discuss issues of contraception. Again, a similar percentage of the respondents 97(63.8%) documented that, their religion did not promote the use of contraceptives. Data from the sociodermographic survey projected that the religious background of majority of the respondents were found to be Christians 134(88.2%) (see Table 2). Since most religious sect frowns on the use of contraceptives, it is likely to say that most of the respondents will not use due to the demands from their religion.

Cultural and Environmental Barriers

Table 10: Cultural and Environmental Barriers (n=150)

	Agree		Disagree		N/A	
	f	%	f	%	f	%
My culture encourages early marriage	63	41.4	85	55.9	2	2.6
My culture frowns on contraceptive use	74	48.7	73	48.1	3	3.3
Desire to be pregnant and have children due to sociocultural values	72	47.4	76	50	2	2.6
My age does not permit me to use contraceptives	83	54.6	63	41.4	4	3.9
I freely discuss contraceptive use at home	48	31.6	101	66.4	1	2.0
I freely discuss contraceptive use at school	50	32.9	98	64.5	2	2.6

Source: Field work (2018)

Cultural and Environmental Barriers

Table 10 represents the cultural and environmental barriers of the respondents. A greater portion of the respondents 83(54.6%) pointed out that, their age could not permit them to use modern contraceptives, while 110(66.4%) said they could not discuss contraceptive at home with their guardians. This

appears guardians themselves knew little or nothing about contraception since most of them have had little or no formal education. Likewise, 98(64.5%) of them also said they could not freely discuss issues about contraception in school. Again, the table 10 showed that 74(48.7%) of respondents also said their culture frowned on the use of contraceptives.

Table 11: Personal Experience (contractive use) and Sexuality Issues (n=150)

	Agree		Disagree		N/A	
	F	%	F	%	f	%
I have used the injectable	17	11.2	128	84.2	7	4.6
I have used the pills	11	7.2	136	89.4	5	3.3
I have used the barrier method	14	9.2	135	88.8	3	2.0
I have used the withdrawal method	15	9.8	133	87.5	4	2.6
I have used the IUD	8	5.3	141	92.7	3	2.0
I have a boy friend	53	34.9	96	63.2	3	2.0
I have had sex before	38	25	109	71.7	5	3.3
I protect myself always	15	10	21	14	2	1.3

Source: Field work (2018)

Table 11 represents the personal experiences and sexuality issues of the respondents. From the table it shows that, majority of them were not using contraceptives. With respect to contraceptive use, majority of them said they had never used any of the following methods thus, IUD method 141(92.7%), oral contraceptive 136(89.4%), barrier method 135(88.8%) and the withdrawal method 133(87.5%)

53(34.9%) agreed to the fact that they have had boyfriend's in which they had begun having sexual relations with. The study recorded about 38(25%) of those who had started having affair. Table 2 showed that, most of the adolescents were ready to abstain from sex or use the abstinence method but quite a number of them have already had sexual relations making it very dangerous for them since they could easily become pregnant. Though it seems they had enough knowledge they were not translating it into use.

Even though a greater percentage disagreed to neither having boyfriends nor having an affair, 96(63.2%) and 109(71.7%) respectively, the fact still holds that, so long as they are peers and with similar characteristics and developments, it is likely most of them in one way or the other may get influenced into either going for a boyfriend or having sexual relationships. As to whether they protected themselves during any act, 21(14%) attested to the fact that they used no protection while 15(10%) said they used some form of protection.

Discussion

The study investigated the socio cultural factors influencing modern contraceptive use among adolescents in the Cape Coast Metropolis in the Central Region of Ghana. The conduct of the study was informed by the high levels of adolescent pregnancies in the study area. The discussion focuses on adolescents' knowledge level on contraceptive usage, the availability or accessibility of contraceptive use, the rate of contraceptives usage and the barriers associated with contraceptive use. Contraceptive use is one of the crucial factors mediating

between sexual activities and pregnancy rates among the adolescents as well as their older counterparts (Komey, 2016).

Sociodemographic Data

The study revealed that majority of the respondents 75(50%) were between the age range of 13 -15 years. This confirms literature because it falls within the adolescence age group. The WHO (2010), classified this period of adolescence into three stages of development. Early (10 to 15 years), Middle (14 to 17 years) and late (16 to19 years). The age of menarche was also found in the range of 13 and 15. This indicated that most of the girls in the form 2 class had been menstruating and at a high risk for getting pregnant, if they do not abstain from sex.

According to Chimah, Lawoyin and Nnebue (2016), adolescents and the youths constitute a high-risk group for unwanted pregnancy and sexually transmitted infections (STIs) including HIV/AIDS. These are conditions that could be averted by good contraceptive knowledge and practice. Adolescents are perhaps the most important group in a society, given their size and characteristics, majority are exposed early to unplanned and unprotected sexual intercourse leading to unwanted pregnancy and sometimes unsafe abortions (Onasoga et al. 2016).

Knowledge on Contraceptive Use

Findings from this study indicated that, adolescents were generally knowledgeable on contraceptive use. This was evident from Table 2 where respondents' demonstrated knowledge level on the questions asked about contraceptive use. Having knowledge and a good understanding off

contraceptives and their uses tended to be an essential step towards initiating or using contraceptives during sex (Komey, 2016).

However, this finding was not similar to existing literature. For example, in a study conducted in Kenya to ascertain the knowledge, perception and information the adolescents had concerning the use of contraceptives, it was revealed that, most of the adolescents had a low knowledge level on contraceptive use. This was because, most participants could not indicate the fact that condom was the same as contraceptives (Komey, 2016). According to Onasoga, et al., (2016), most of the youth have heard of contraception whereas accurate knowledge about its use is minimal.

In the current study, it may appear respondents were either truly familiar with the use of contraceptive or perhaps only sought to impress the researcher on having enough knowledge on contraceptives. In Ghana, studies suggest that, knowledge on contraceptive use is woefully inadequate among women in their reproductive ages therefore revisiting the issue and giving it prominence is critical (Asante, 2016).

According to Chimah et al, (2016), adequate reproductive health education is lacking amongst the adolescent reducing the use of contraceptives. They maintain that, contraceptive use remain low in both their first and last sexual encounters. A study by Komey (2016), revealed that, good knowledge, as well as correct and consistent use of contraceptives can go a long way in promoting sexual and reproductive health, thus averting these negative outcomes that result from poor knowledge and practice of contraception (Komey, 2016).

Another study in Brazil, also shows that, adolescents (12-19 years) who attended private schools as well as public schools showed inadequate knowledge about contraceptive method (Darko, 2016). Again, Onasoga et al, (2016), in their study reported that, majority of these young individuals going through their reproductive years have very little access to sexual and reproductive health information and services and especially information on contraception.

Consequently, unintended pregnancy becomes a major challenge to the reproductive health of young adults. By implication, if early pregnancy must be prevented, there will be the need for schools as well as parents to provide adolescents knowledge about the use of contraceptives. If this is not done, the likelihood is there for them to engage in unprotected sex with its consequences on infections and early pregnancy.

Availability and Accessibility of Contraceptives

Results showed that, Majority of the respondents 110(72.4%) knew contraceptives was available at the pharmacy pointed out that contraceptives were affordable. 94 (61.9%) of them also said the family planning clinic opened at convenient hours while 83(54.5%) confirmed that distance was not a hindrance to accessing contraceptives.

Majority of the respondents 110(72.4%) knew contraceptives was available at the pharmacy. This was similar to the findings of Boamah et al, (2013), where majority of adolescents (62.1%; 131/211) reported accessing contraceptives from the pharmacy and the chemical seller's shops. Concerning the

availability of contraceptives, respondents said most of the contraceptives were affordable 103(67.8%).

This meant that when it comes to the purchasing of some contraceptives, irrespective of being dependent or independent on guardians, most adolescents could afford or buy them. According to (Broody, 2018), condoms and pills are the most preferred types of contraceptives among the adolescent which is easily accessible and affordable and sold over-the-counter and sometimes distributed free in schools, even though these contraceptive methods are key to preventing sexually transmitted infections, in practice they are among the poorest means to preventing pregnancy. Clottey (2012), argued that the barrier method had more advantages compared to the others. This may include easy availability, protection against sexually transmitted infections, being cheap and safe and sometimes may be sold freely without prescription.

Graham (2018), also confirmed this finding in a study where most teenagers were found accessing or buying contraceptives for themselves. In his study, he found that, most female teenagers in North Carolina connects to websites or apps where they could get a prescription to buy birth control pills which is delivered to them at home, without necessarily seeing a doctor.

In terms of distance to the location of family planning clinics, about 94(61.9%) of the respondents said the family planning clinic opened at convenient hours, while 84(55.3%) of them said the distance was not a hindrance to accessing contraceptives. This finding is similar to that of (Woog et al., 2015). They found

that where there are adequate systems and structures in place, adolescents and the young adult may have no problem accessing reproductive health facilities.

According to Woog et al, (2015), places with good convenient location and hours of operation of facilities, could be appropriate for the adolescents. In spite of proximity of access to family planning clinics. The findings create the need for the Ministry of Health/Ghana Health Services to ensure that more of these clinics are established in the country to cater for the needs of the adolescent. In addition, regular information should be given through the media and school programmes to help them know where to go in case they need help.

However, 77(50.6%) said waiting time at the family planning was not short. It was revealed that, 74(48.7%) of the staff at the family planning unit were not cordial to their clients (adolescents) and 77(50.6%) also could not access the family planning facility every time. Literature supports these findings.

According to Glinski and Petroni, (2014), even where there are no legal restrictions to obtaining services, young people often face bias and negative attitudes from providers. In many places, health providers refuse to provide unmarried adolescents with contraceptive information and services because they do not approve of premarital sexual activity. Young people may be deterred from seeking the services they need if they feel they will be ill-treated or judged, or if they are concerned that their confidentiality and privacy will be exposed.

Literature supports that, in some cases, even if the health facilities exist, there is not enough trained staff to provide the needed services, and supplies of drugs and contraceptives are often lacking (Woog et al, 2015). Therefore it

becomes very difficult to access the facility. According to Akoth (2015), the availability, accessibility and acceptability of contraceptives in many places, is not just available to anyone.

Where contraceptive services are available, adolescents (especially unmarried ones) may not be able to obtain them because of restrictive laws and policies (Even if adolescents are able to obtain contraceptive services they may not do so because of fear of their confidentiality, losing their respect or that health-care worker may be judgmental.

Personal Experience (Contraceptive use) and Sexuality Issues

Use of contraceptives was relatively low among the adolescents studied. Out of 150 respondents, 65(43.3%) agreed to the statement of ever using contraceptives, whilst majority of them 85(56.7%) discounted using contraceptives. The current finding corroborates those of Boamah, Asante, Mahama, Manu, Ayipah, Adeniji, Owusu-Agyei (2013), and the Ghana Demographic Health Survey report (2008). In their study, Boamah et al, (2013), found that the percentages of contraceptive use among adolescent in Ghana was rather on the low side.

Similarly, the Ghana Demographic Health Survey report (2008) revealed low levels of contraceptive use among adolescents (24.0% among females and 39.0% among males). In the same study, it was also revealed that, 18.0% and 27.0% of adolescent males and females, respectively, used condoms in their first sexual encounter (GDHS, 2008).

The GDHS (2014) again revealed that, 73.6% of adolescents girls aged 15-19, had been involved in sexual activities at least once; with 19.4% still in sexually active relationships (GDHS, 2014). Their assessment on contraceptive use was again found to be on the low side, as most of these sexually active adolescents admitted to not using any form of contraceptives with most of them receiving the minimal knowledge they have about contraceptives from the media (Komey, 2016).

Several factors such as level of knowledge, sex, age, contraceptive availability, as well as socio-cultural norms among others, might have accounted for this. According to Nyarko (2015), the use of contraceptive methods among the adolescent remains low as a result of fear, embarrassment, cost and lack of knowledge which were mainly the factors preventing the female adolescent from using contraceptives.

As part of their sexuality, it was revealed that, quite a number of them were into relationships and have been engaging in sexual relations with and without the use of contraceptives (see Table 11). These findings are similar to existing literature. The Ghana National Demographic and Health Survey (GDHS, 2014), showed that, 73.6% of adolescent's girls between age (15-19), had been involved in sexual activities at least once; with 19.4% still in sexually active relationships (GDHS, 2014). Most adolescent girls may not use contraception because they report of infrequent sexual habits and the fact of not being married. Furthermore, consistent contraceptive use with their current partners was recorded

among 24.0% and 20.0% of males and females, respectively (Boamah, Asante, Mahama, Manu, Ayipah, Adeniji & Owusu-Agyei, 2013).

Accessing their utilization of contraceptives, it was rather on the low side, as most of these sexually active adolescents admitted to not using any form of contraceptives with most of them receiving the minimal knowledge they have about contraceptives from the media (Komey, 2016). In Sub-Sahara Africa, 20% to 30% of partners and significant others oppose contraceptives use. In that case, they do not encourage their adolescents to use contraceptives. According to the Ghana Demographic Health Survey (2008), contraceptive usage is low among adolescents nationwide. Clottey (2012), narrated that, it is even a taboo in Ghana for adolescents to talk about sexual issues let alone contraceptives.

Religious Barriers

Findings from table 5 showed that, religion does not support the use of contraceptives amongst the adolescent. This is because, 97(63.8%) of the respondents could not freely discuss issues of contraception during church activities or gathering, while a similar percentage of the respondents 97(63.8%) also said their religion did not promote the use of contraceptives.

Most researchers are in agreement with this finding. According to Murzyn (2014), some religious values can influence a woman's decision on the method of contraceptive to use. This is because, some religious systems associate pronatalism as divine blessing and infertility as a curse and could motivate reversals in fertility preferences. Bakibinga et al, (2015) also added that, some Christian religious sect such as the Roman Catholics, the Protestants, and

Evangelical sects etc frowns on the use of contraceptive methods. Most of them have varied ideas to the fact that, it may promote promiscuity and also destroy a biological sequence (Bakibinga et al, 2015). Since the study revealed majority of the respondents to be Christians, invariably they could be affected by some of this information one way or the other by failing to use some of these contraceptives when the need arose.

Furthermore, a study by Adjei, Sarfo and Asiedu (2014), found that, some traditional African religion also believed, reproduction remains the most important outcome and purpose of life as it is believed to appease ancestors whose spirits were satisfied through the childbearing of descendants.

Cultural Barriers

Out of the entire sample, 110(66.4%) said they could not discuss contraceptive with their guardians at home. A number of them, 98(64.5%) also said they could not freely discuss issues about contraception in school. Several studies confirm these findings. For example, Woog, et.al (2015), posited that, most adolescents may not discuss issues with the elderly or parents due to fear of being stigmatized or punished for having been sexually active.

Again, studies have shown that in general terms parents find it difficult to discuss sex related matters with their adolescent children and also that mothers tend to have such discussions with daughters and fathers with sons (Kareem & Samba, 2016). They concluded that where guardians' educational level was high, they may be more able to discuss such issues and may even be a role model for her daughters (Kareem & Samba, 2016). To buttress this statement, this study found that most of the guardians were Junior High School (JHS) leavers and

others without formal education therefore making it difficult to discuss matters of sexuality and even contraception.

In fact, according to Boateng (2013), culture actually frowns on the use of contraceptives. This is because in most cultures in the traditional Ghanaian society, the social prestige of women is enhanced by their marital status and the number of children they had. A woman in the reproductive age who is childless in the Ghanaian society may be looked at with some degree of social stigma. She may be regarded as immature and irresponsible and may not be invited to participate in certain traditional and social functions (Boateng, 2013).

Majority 83(54.6%) of the adolescent did not use contraceptives because of their age. Most adolescents do not use contraceptives for the reason that, it was mostly for adults. This confirms a study in Kenya, where family planning was found to be highest among women aged between 20 - 39 years. It was found that, 49 percent of the women that were using contraceptives were aged 20- 29 years whereas, 41 percent were aged between 30 - 39 years, while no woman aged 50 years and above was found to be using any form of contraception (Akoth, 2010) On the other hand, those below 20 years who were using contraceptives were between 4 to 5 percent. These results indicate how age may influence the use of contraceptives.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter discusses the summary of the research findings, conclusions and recommendations for policy makers and for further research. These recommendations are made on the basis of the findings.

Summary

This study sought to assess the adolescents' knowledge, access, and usage of contraceptives among female adolescent in the Cape Coast Metropolis. Specifically, the study sought to assess the,

1. knowledge level of contraceptive use among the adolescent
2. accessibility or availability of contraceptives to the adolescent
3. adolescent utilization of contraceptives
4. barriers that influence the use of contraceptives among adolescent

The study employed a sample size of 150 female adolescents aged 12 - 19 years old from three selected schools in the Cape Coast Metropolis where participants were made to answer questions from a self-administered questionnaire.

Conclusions

The result of the study on the knowledge of contraceptive methods was not consistent with the findings of other studies. It showed that female adolescents had extensive knowledge on some of the traditional and modern methods of contraceptives, especially condom use and abstinence and the meaning and the benefits of contraception. However, it was noted from other studies that, this

widespread of knowledge was rather low. Even though having knowledge according to the current study, they did not translate it into use for several reasons such as age, sex, and other cultural and religious reasons amongst others.

Results from the accessibility of contraceptives were found to be similar to existing studies. It showed that majority of the respondents knew the pharmacy as a place for accessing contraceptives as compared to other places while others indicated that contraceptives were affordable and also the time for opening family planning units were convenient for them.

However, it was noted that respondents encountered issues when they had to visit the facility. Waiting time as they say was not short, including the unfriendliness of the staff or personnel at the facility. It was again relayed that even though clinics were opened at convenient hours, majority of them could not access the family planning facility every time.

Furthermore, findings from how adolescents utilize contraceptives showed that, few of the respondents used contraceptives while majority of them did not. Most of them were not using contraceptives despite being knowledgeable about it. About their sexuality, it was revealed that, some of them had boyfriends and had started having sexual relation with them with a low use of contraceptives. On the contrary both the cultural and religious barriers were seen as factors influencing or preventing most female adolescents from the use of contraceptives.

Recommendations

Given the empirical findings of this study and the conclusions, the following recommendations may go a long way to help in formulating policies that aim at designing programmes to promote family planning and improve the sexual and reproductive health among female adolescents in Ghana.

Ghana Health Service and Ministry of Health

Given that female adolescents were more knowledgeable about contraception use but could not put them into practice, it will be prudent that, the Ghana Health Service in collaboration with the Ministry of Health provide more youth friendly health corners for the adolescents. This in addition with specifically trained and friendly personnel who could help with the provision of youth friendly services.

Aside from this, adolescents could be sensitized on the social and economic benefits of contraceptive use through public campaigns and mass media. Promoting the use of contraceptive methods among female adolescents is important to improve the health and well-being of adolescents and women in general. This could help address issues related to the sexual and reproductive health among the adolescent.

More of these specialized personnel should be trained by the ministry to limit the waiting time of the adolescent as well as the creation of more youth friendly corners.

The Authorities and Stake Holders (Cape Coast metropolis)

Majority of the female adolescent only knew both the pharmacy and hospitals as a places they could access contraceptives were affordable and also accessible at the hospitals**.** Majority of them also said some were affordable. Therefore the Regional health authorities should solicit more funds in the purchasing of some of these contraceptives so that even the more expensive ones could be bought at a low price. Also, more avenues including the health corners should be created so that, adolescents may not travel long distances for contraceptives services.

Ministry for Gender Children and Social Protection and the Christian Council of Churches

The barriers (cultural and religious) to contraceptive use in the study were found not to support the adolescent in contraceptive use. Therefore, the study suggests that there should be a collaborative effort between the above stated ministry and stakeholders in the community both religious and cultural for varied workshops on contraception, the adolescent and its benefits and other areas of concern. This may help amend some cultural and religious values that pose threat to the use of contraceptives among the adolescent.

Municipal Health Management Team

It was realized that respondents had a fair knowledge about contraceptives but did not translate it into use. The Health Management Team in the Metropolis could therefore help the various facilities to draw health education programmes concerning contraceptives to help raise the awareness level. Again the Team

could intensify education about contraceptive in the communities. The educational programme could aim at sensitizing the public, demystifying misconceptions and myths and address safety concerns. Further on, the Metropolis health team, can collaborate with the local FM stations so that they could broadcast pre-recorded messages about contraceptives. Mobile health services vans can also be used to help in educating the community members.

Recommendation for Further Studies

The focus of this study was primarily on the socio-cultural influences of contraceptive use among female adolescents without taking into consideration the contraceptive concerns of their male counterparts due to time constraints. Hence, the outcome of this study may be bias towards the reproductive health needs of women and children. It is therefore recommended that in addressing such concerns, research work in such fields consider both interests in order to tackle the issues.

Implications for Nursing Education

The findings have implications for nursing education and care. Though the nursing education caters for issues related to family planning, it may be necessary for tutors to put more emphasis on it. If this is done, it will enable trainee nurses to reinforce their knowledge on reproductive health. Subsequently, students can be well informed and sensitized on the use and importance of contraceptives to the adolescent with a gradual change of attitude towards the adolescents.

It may also be necessary for the Nurses and Midwives Council (NMC) of Ghana to be actively involved in conducting educative programmes. Workshop

and continuing education programmes should be embarked upon to educate nursing personnel both in the schools and hospitals concerning the effective use of contraceptive especially to the adolescent to prevent unintended pregnancies. Also, some of the workshops should be geared towards the attitude of the health personnel's towards the adolescent and the use of contraceptives.

Implications for Nursing Care

Nurses with this acquired information, may be able to raise the awareness among the adolescent as well as the entire public by providing the necessary health talks in schools, hospitals, media among others. Questions that may help expel fear and myth surrounding the use of contraceptives could be addressed to help reduce the large numbers of unintended pregnancies and also be in the position to provide clients with their chosen method of contraception.

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APPENDIX A

UNIVERSITY OF CAPE COAST

COLLEGE OF ALLIED AND HEALTH SCIENCES

DEPARTMENT OF NURSING AND MIDWIFERY

QUESTIONNAIRE FOR STUDENTS

Dear participants I am a second year MPHIL nursing student carrying out a study on, the Adolescents knowledge, Access and usage of contraceptives in the Cape Coast Metropolis. The purpose is to assess the knowledge level of contraceptive usage among the adolescents. I recognize how busy your schedule is but strongly believe you can contribute a lot to the study. Please this is not a test and you are therefore not to write your name anywhere on the questionnaire. You are therefore expected to answer the questions as earnestly as you can. Thank you

A. SOCIODEMOGRAPHIC CHARACTERISTICS

Tick and Insert the Most Appropriate Response ( )

	QUESTIONS	RESPONSE	
Q1	Age	10 -12 13-15 16- 19	
Q2	Form	JHS 1 JHS 2 JHS 3	

Q3	What is the highest level of education of your Guardian?	illiterate Primary JHS SHS Tertiary	
Q4	Religious affiliation	Christian Islamic Traditional	
Q5	Occupation of father		
Q6	Occupation of mother		
Q7	Occupation of your Guardian		
Q8	What is your relationship status? I have a boy friend	Yes No	
Q9	At what age did you start menstruating	9 - 12 13- 15 16- 19	
Q10	Have you had sex before?	Yes No	
Q11	Frequency of having sex Always sometimes		

Please tick the appropriate response in the table below where:

(SD) Stands for strongly disagree, (D) stands for disagree,

(A) Stands for agree and (SA) stands for strongly agree

B. AWARENESS AND KNOWLEDGE OF CONTRACEPTIVES

		SD	D	A	SA
Q12	Contraception is the use of various devices, drugs, agents, sexual practices, or surgical procedures to prevent conception or pregnancy.				
Q13	My source of information is the hospital				
Q14	My source of information is from the health provider				
Q15	My source of information is from the PPAG clinic				
Q16	My source of information is from the Media				
Q17	My source of information is from the Internet				
Q18	Sterilization is a type of contraceptive				
Q19	I am aware of the writhdrawal method				
Q20	I am aware of the barrier method				
Q21	I am aware of injectable				
Q22	I am aware of the IUCD				
Q23	I am aware of the oral contraceptive				
Q24	I am aware of nature family planning				
Q25	The withdrawal method is a type of contraceptive				
Q26	Natural Family planning is a type of contraceptive				

		SD	D	A	SA
Q27	The Barrier Method is a type of contraceptive				
Q28	Oral contraceptives is a type of contraceptive				
Q29	Intrauterine devices is a type of contraceptive				
Q30	Sterilization is a type of contraceptive				
Q31	Dizziness is a side effect of contraceptive				
Q32	headache, is a side effect of contraceptive				
Q33	Weight gain , is a side effect of contraceptive				
Q34	groin or calf pain, is a side effect of contraceptive				
Q35	Condoms are reusable				
Q36	One could become promiscuous by using contraceptives				
Q37	Contraceptive use provides 100% protection from pregnancy.				
Q38	I intend to wait until I get married to have sexual intercourse for the first time.				
Q39	Contraceptive use is both for male and female.				
Q40	one unprotected sex can make a girl pregnant				
Q41	Contraceptive use is beneficial in preventing pregnancy				
Q42	Contraceptive use is beneficial in reducing unintended pregnancy and abortion				

Q43	Contraceptive use is beneficial in reducing pregnancy-related morbidity and mortality				
Q44	Contraceptive use is beneficial in helping women and couples time and space their pregnancies				

ASSESSIBILITY/ AVAILABILITY OF CONTRACEPTIVES

		SD	**D**	**A**	**SA**
Q46	Some contraceptives could be accessed at Supermarkets				
Q45	some contraceptives could be accessed at PPAG clinics				
Q46	Some contraceptives could be accessed at the hospitals				
Q47	Some contraceptives could be accessed at the pharmacy				
Q48	Contraceptives are affordable				
Q49	I can assess a family planning center every time				
Q50	Staff attitude at the family planning unit is cordial				
Q51	The family planning clinic opens at convenient hours				
Q52	Waiting timeat the family planning center is short				
Q53	Distance is not a hindrance to accessing contraceptives.				

PERSONAL EXPERIENCE PERSONAL EXPERIENCE

		SD	D	A	SA
Q54	I have used the injectable				
Q55	I have used the pills				
Q56	I have used barrier method				
Q57	I have used the withdrawal method				
Q58	I have used the IUD				
Q59	I have a boy friend				
Q60	I have had sex before				
Q61	I protect myself always				

BARRIERES TO CONTRACEPTIVE USE

		SD	D	A	SA
Q62	I cannot discuss contraceptive freely at home				
Q63	I cannot discuss contraceptive freely during church activities				
Q64	I cannot discuss contraceptive freely at School				
Q65	My religion does not promotes the use of contraception.				
Q66	Long term use of contraceptives has no side effects.				
Q67	My parents are aware of the type of contraception I use.				
Q68	My culture discourages early marriage				
Q69	I am not often embarrassed when issues of contraceptives are being discussed.				
Q70	I cannot easily buy contraceptives				
Q71	I am unable to wear the female condom				
Q72	I do not get the desire to be pregnant and have children due to my sociocultural values				
Q73	I do not have in-depth knowledge and understanding of contraception				
Q74	My age do not permit me to use contraceptives.				
Q75	I cannot be obese when I take contraceptives.				
Q76	I cannot have cancer when I use contraceptives.				
Q77	My culture frowns on contraceptive use				
Q78	My partner will not always want protected sex				

Q79	My preferred method is not always available				
Q80	I always get my preferred method				