

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI,
GHANA, COLLEGE OF HEALTH SCIENCES, SCHOOL OF PUBLIC HEALTH**



**A COMMUNITY BASED STUDY OF CONTRACEPTIVE USE AMONG
ADOLESCENTS IN CHORKOR, A SUBURB OF ACCRA**

BY

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DECLARATION

I, Genevieve Abla Vorsah, state that this thesis is my own work towards the award of a Master of Science degree in Environment and Public Health. To the best of my knowledge, it contains neither material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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DEDICATION

I dedicated this thesis proposal to my lovely husband Korna Bonney Esq, and my lovely children
– Nunyuieke, Aguedze and Afelete for their sacrifices and support throughout my study period.



ACKNOWLEDGEMENT

My special thanks to God for the strength to embark on this academic program.

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The next appreciation of thanks goes to all who helped me immensely in completing this work.

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ABSTRACT

Introduction

Prevention of Sexually Transmitted Diseases (STDs) and unwanted pregnancies among adolescents through effective contraceptive use is a global public health challenge in adolescent

reproductive health matters. Contraception is defined as the use of a drug or device to prevent pregnancy before or after unprotected sexual intercourse.

Aim

The main research objective of this study is to examine the use of contraceptives among adolescents in the Chorkor community, a suburb of Accra.

Methodology

This survey adopted a cross-sectional study design to examine the factors contributing to the use of contraceptives among adolescents (people aged 10 to 19 years old) in the Chorkor community. Data was collected with a structured questionnaire which examined the demographic characteristics of the adolescents and questions relating to the objectives in the study. The data was analysed using SPSS version 20. Data was analysed descriptively and presented as counts and proportions for categorical variables. Univariate and multivariate analysis of both dependent and independent variables were done to establish associations among variables. Multiple logistics regression model was employed to calculate both adjusted and unadjusted odds ratios. Odds ratios outcomes was accepted at the 95% confidence interval and a 0.05 level of significance.

Findings

Four hundred and twenty-six (426) adolescents participated in the study. There were a total of 206 (48.4 %) males and 220 (51.6 %) females. The average age for the study was 14.8 years with a standard deviation of 2.0 years. The minimum age recorded was 11 years and the maximum age was 19 years. The study did not show any statistically significant difference in the age distribution (p-value = 0.079).

The main importance derived from the use of contraceptives by the adolescents is the avoidance of unwanted or unplanned pregnancies and the spread of STDs/STIs. 95.3 % of participants had low level of knowledge about contraceptives.

There was no significant difference in gender for level of knowledge of contraceptives and the types of contraceptives available to the adolescents (p -value = 0.498). The overall prevalence of contraceptive use among the adolescents was 21.6 %. The prevalence of contraceptive use among male adolescents was 18.4 %. The prevalence of contraceptive use among female adolescents was 24.5 %. Willingness to continue with the use of contraceptives among adolescents was 97.3 %. Factors influencing the use of contraceptives among the adolescents included; age, education and want to avoid STDs. The methods of contraceptives currently in use by adolescents in the Chorkor community includes; condoms, implant/injectable, IUD, natural methods, periodic abstinence and pills. About twenty-five percent (24.6 %), nineteen percent (18.5 %) and one percent (0.5 %) of adolescents in Chorkor knows the existence of condom, the pill method and implant injectable respectively in the Chorkor community.

Barriers to the use of contraceptive among adolescents were; cost of contraceptives, limited knowledge about the use of contraceptives, religious beliefs and availability of contraceptives.

Conclusion

The use of contraceptives among adolescents in the Chorkor community is very low although adolescents may have knowledge in at least one contraceptive method. There is a need for continuous education on the use and importance of contraceptives through various social-media platforms. Such educational interventions should be adolescent-centered.

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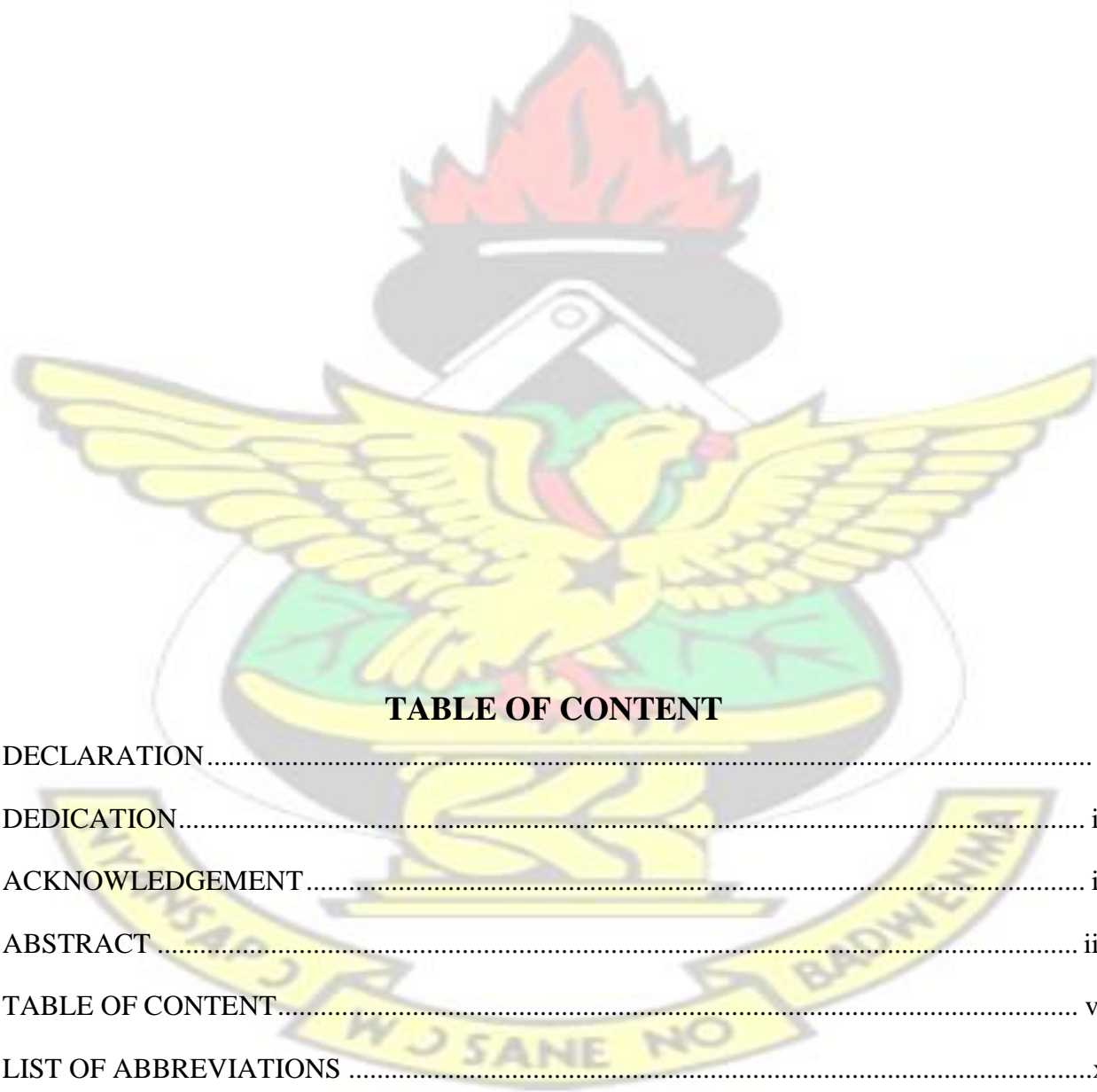


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LIST OF ABBREVIATIONS

WHO: World Health Organization

STDs: Sexually Transmitted Disease

STIs: Sexually Transmitted Infections

GDHS: Ghana Demographic and Health Survey

HIV: Immunodeficiency Virus

GHS: Ghana Health Service

MOH: Ministry of Health

IUD: Intra Uterine Device

ECP: Emergency Contraceptive Pill

POPs: Progestin-Only Pills

DMPA: Depo Medroxyprogesterone Acetate

LAM: Lactational Amenorrhoea Method

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Trussell, Koenig, Ellertson, Stewart, (1997) defined contraception is defined as the use of a drug or device to prevent pregnancy before or after unprotected sexual intercourse. Contraceptives are therefore devices, drugs and methods which could be employed in the prevention of unwanted pregnancy. Statistics from the World Health Organization reveals that although several programs and attempts have been implemented to ameliorate the global challenge of teenage pregnancy, still over 15 million live births globally are reported among adolescents (WHO, 2015).

Among the millennium development goals is the effort to prevent sexually transmitted diseases (STDs) and unplanned pregnancies found among adolescents and youths through the use of effective contraceptives (Adebawale, Fagbamigbe, & Bamgboye, 2011). This is a global public health challenge and has been given due priority among the millennium development goals (Adebawale et al., 2011).

In 2014, Ghana's population was about 26.44 million making the country the thirteenth most populated nation in Africa according to the UN DESA, (2014). It has been observed that ever since Ghana had her independence in the year 1957, the population has increased significantly to about three times the population (6 million) recorded in 1957. The level of fecundity in women has dropped over the past years from an average of six children per woman to four children per woman in 2014 (GDHS, 2014; Williamson, Parkes, Wight, Petticrew, & Hart, 2009). Regardless of all these changes, the rate of population growth in the nation still remains a challenge. Even with the introduction of the National Population

Policy (1969).

Considering the rapid population growth in Ghana, it has become necessary for develop programs and strategies that could curb the fertility rates of adolescents.

The use of contraceptives in birth control is a remarkable concept that would foster the prevention of unwanted pregnancies is essential in attaining the Strategic Development Goals related to the reduction of infant mortality and the promotion of maternal health in the Ghana (Osborn, Cutter and Ullah, 2015).

The utilization of family planning services is very low in developing countries such as Ghana. As a result, the utilization of contraceptive methods remains low (Apanga and Adam, 2015). The continuous increase in population, unprotected and unplanned sex predisposes adolescents to dangers associated with infections, unplanned pregnancy and foetal abortions. (Hagan and Buxton, 2012; Eliason et al., 2014). This situation may eventually lead to either death or low a low quality of life (Hagan and Buxton, 2012; Eliason et al., 2014).

Involvement of adolescents in dangerous and unplanned sex coupled with early motherhood may impose some threats to the lives of such young people who are economically and socially weak. Adolescents in developing nations like Ghana may have high levels of sexual activities. (Williamson et al, 2009). According to Williamson et al, (2009). 75% of adolescents indicated they had sex by the time they attained age 20 years (Williamson et al, 2009).

Although governments and international organizations have promoted policies and programs tailored to the reproductive health desires of adolescents, there is still the need for new strategies to be implemented to develop the life of these adolescents who will become the future leaders of our society. (Aninanya et al., 2015).

The use of effective and appropriate methods of contraceptives are very essential for the prevention of pregnancies and sexually transmitted diseases among adolescents (Bankole et al., 2007; Opoku and Kwaununu, 2011).

The GDHS (2014) reported that 96.5 % of Ghanaian adolescents have knowledge of modern contraceptive methods. Even with this encouraging statistics, the utilization of these contraceptives among adolescents in Ghana is still low (Apanga and Adam, 2015). Some factors such as the level of education and income have been identified to have an influence on the use of contraceptives among adolescents (Asiimwe et al., 2014). Srikanthan and Reid, (2008) reported religion as another factor which could affect the utilization of contraceptives among adolescents.

The use of contraceptive at an early stage of life may affect its continuous utilization (Kinaro et al., 2015). The advantages of using contraceptive include prevention of accidental pregnancies and sexually transmitted infections (Ekundayo et al., 2007).

According to a U.S. study on the use of contraceptives among adolescents and young adults, the risk of unintended pregnancy and STDs can be reduced by using appropriate methods of contraceptives respectively among Sexually Active Teens and Young Adults (Sakia and Lama, 2011).

In Ghana, the knowledge of contraceptives is generally appreciable but its use among adolescent remains a challenge to adolescent health as one in eight pregnancies is attributable to an adolescent especially among those aged 10-14 years (GHS, 2005).

Another study at the Greater Accra and Eastern regions of Ghana that revealed a significant proportion (78.4%) of female adolescent having sexual experienced at an average age of 16 years (Agyei et al, 2000). Findings from the same study noted an incidence of pregnancy among 37 % of adolescents which was even higher in the cities than in rural communities.

These statistics are very key in establishing strategies to promote adolescent reproductive health in the Ghanaian population for a better quality of life.

1.2 Statement of the Problem

Adolescent health and fertility regulation is one of the most important healthcare concerns globally (Alan Guttmacher Institute, 1998). Globally, over 15 million adolescent girls give birth annually (Alan Guttmacher Institute, 1998). This has a socio-economic implications to all nations around the world. To response to this adolescent reproductive health need, the International Planned Parenthood Federation, (1994) has identified adolescent reproductive health issues as fundamental human right which should be given the deserved attention.

In Ghana, adolescent health and fertility remains a crucial issue to the Ghana Health Service since the menace of precarious sexual behavior among adolescents presents with economic challenges to the country as a nation experiencing rapid economic growth (GHS, 2005; GDHS, 2014). Unprotected and unplanned sexual activities may expose adolescents to the danger of undesirable pregnancies and Sexually Transmitted Diseases (STDs) (Hagan and Buxton, 2012).

The use of contraceptives in the control of unwanted pregnancies and STDs remains an important issue in adolescent health care needs. Reproductive health experts have indicated that the use of effective means of contraception helps in preventing unwanted pregnancies and the contracting of sexually transmitted diseases (Bankole et al., 2007; Opoku and Kwaununu, 2011).

Report from the Ghana Demographic and Health Survey 2014, shows that the knowledge of contraceptive use in the country is universal. The report also mentioned that about 99.0 % of women in Ghana have knowledge in at least one form of contraceptive (GDHS, 2014).

Among the men, it was reported that 99.2 % knew at least one form of contraceptives (GDHS, 2014). Adjei et al (2014), indicated that regardless of several attempts by stakeholders for several years to encourage the utilization of contraceptives in the country, the use of contraceptives remains low.

Increased rate of unwanted pregnancies comes with several economic implications on individuals, their families and the country at large. Since the increased utilization of contraceptives remains essential in controlling unwanted pregnancies, it is worth studying the factors which may promote the use of contraceptives in a community such as Chorkor which is a fishing community with low socio-economic activities.

This study was driven by the constant anecdotal information reporting rampant unintended pregnancies and sexually transmitted diseases among adolescents from the community seeking healthcare services at the Mamprobi and Korle Bu Polyclinics respectively. There is however little documented information on use of contraceptives and reproductive health information in this community. Data from this research will assist policy makers in coming out with programs which would factor the reproductive health plight of the Ghanaian adolescent in a quest to increase utilization of contraceptives among adolescents. This will reduce the rate of unwanted pregnancies and the spread of sexually transmitted diseases.

Against this background, the study seeks to examine the use of contraceptives among adolescents in the Chorkor community, a suburb of Accra.

1.3 Justification of the Study

Pregnancy in adolescents remains a challenge in most African societies such as Ghana. This condition is one of the chief factors causing increased growth in population globally with mortality among mothers and children and poor quality of life (WHO, 2014).

Data from the Ghana Health Service has indicated that about 750,000 female adolescents each year become pregnant regardless of the widespread campaign for people to utilize contraceptive products (GDHS, 2014). Tetteh, (2013) also indicated that amidst several movements for the increased patronage of contraceptive usage adolescents continue to have unprotected sex which eventually results into pregnancies.

In modern days, the reproductive health campaigns for adolescents have significantly focused on increasing the utilization of contraceptives and making it accessible to adolescents who may need such services. This is a move to ameliorate the rampant teenage pregnancies among female adolescents. The implication of unprotected sexual behaviour among adolescents could be felt socially and economically. Society may negatively be affected by such young adolescent mothers dropping out of school with all their academic potentials possibly going waste.

The output of this study would foster further deliberations concerning contraceptive utilization among adolescents. This further would support the Ministry of Health in Ghana in the development of programs tailored towards adolescent health.

Academically, the outcome of this study may enhance and contribute to literature and body of knowledge in the field of reproductive and child health in Ghana as well as improve research on the subject matter.

Furthermore, the outcome of this research will also contribute to knowledge concerning the factors which drives the utilization of contraceptives among adolescents in coastal settings.

This will further assist researchers in studying the subject matter of reproductive health in Ghana and other developing countries.

1.4 General Research Objective

The main research objective of this study is to examine the knowledge and factors influencing the use of contraceptives among adolescents in the Chorkor community, a suburb of Accra.

1.5 Specific Objectives

- (i) To explore the knowledge about the importance of contraceptive use among the adolescents.
- (ii) To examine willingness to use contraceptives by the adolescents.
- (iii) To examine the factors influencing the use of contraceptives among adolescents.
- (iv) To examine adolescent knowledge of various contraceptives available to adolescents in the Chorkor community.
- (v) To determine sex differences in perceived factors influencing the use of contraceptives among adolescents in the Chorkor community.

1.6 Research Questions

To achieve the research objectives, this study seeks to resolve the followings questions;

- (i) What are the factors influencing the use of contraceptives among adolescents in the Chorkor community?
- (ii) Are adolescents in the community willing to use contraceptives?
- (iii) What are the various contraceptives known by adolescents in the Chorkor community?
- (iv) What are the sex differences in perceived factors influencing the use of contraceptives among adolescents in the Chorkor community?
- (v) What are the importance of the use of contraceptives among adolescents in the Chorkor community?

1.7 Conceptual Framework

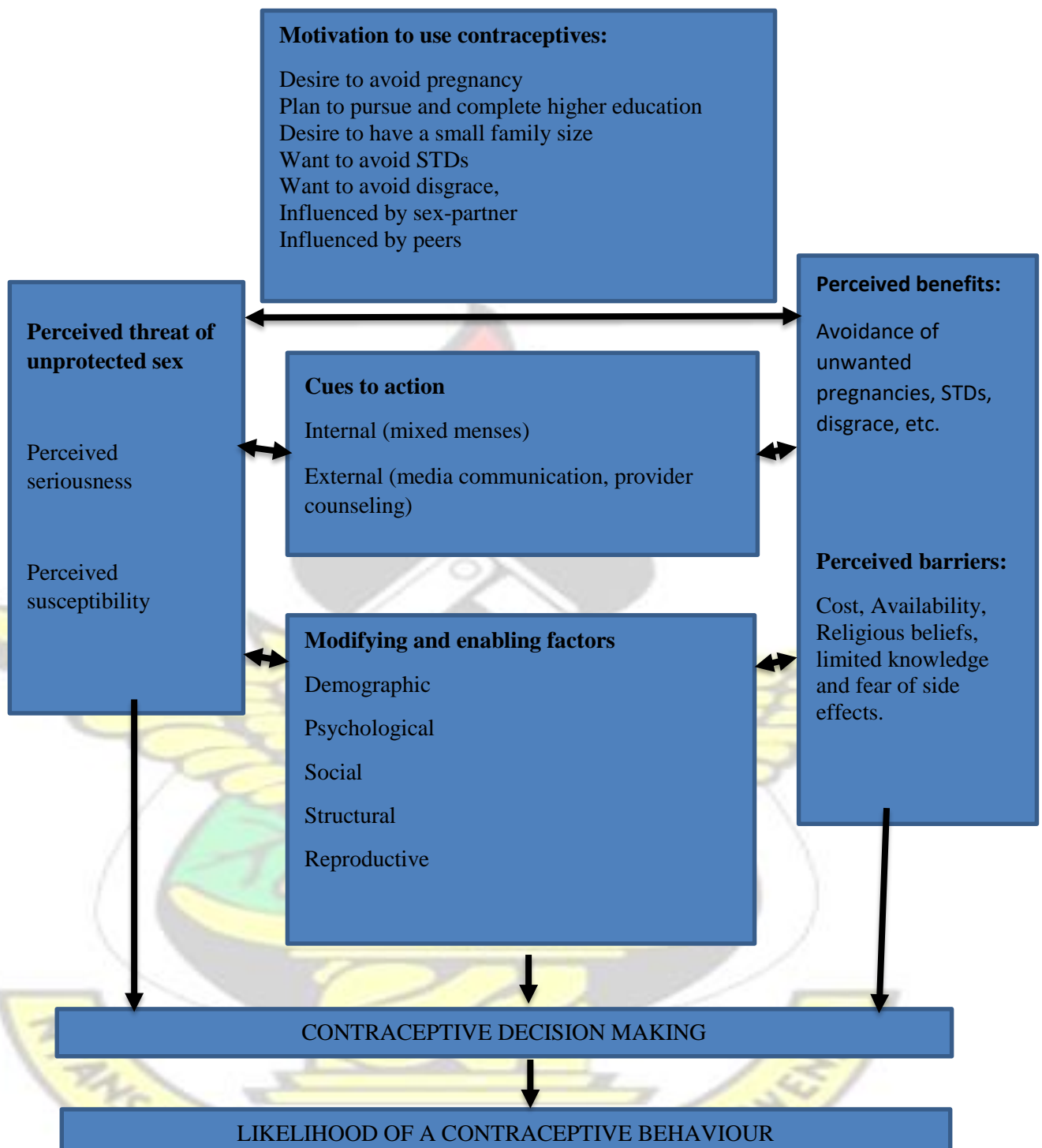


Figure 1. 1: Conceptual framework.

Source: Hall, 2012

The study will adopt the Health Belief Model in analyzing the use of contraceptives

among the adolescents at the Chorkor community. This framework has been illustrated above.

The Health Belief Model has been adapted to explain the sexual behavior and contraceptive use among adolescents. The Health Belief Model is a psychological model that attempts to predict and explain human behavior in relation to health. The key concepts in the model include perceived threat of unprotected sex, perceived barriers, perceived benefits, and cues to action and modifying and enabling factors. (Hall, 2012).

An adolescent may have a perceived threat resulting from unprotected sex. This threat may lead to unwanted pregnancy which may result in dropping out of school. This will lessen her chances of achieving her life time goals. This may cause the adolescent to feel socially embarrassed as it may be perceived as a sign of promiscuity. The responsibility of being a parent as well may also be a threat to the girl. The idea of abortion and its potential for loss of life will also make a girl fear pregnancy. All these may lead to a motivation to use contraceptives which are basically; desire to avoid pregnancy, religious belief systems, plan to pursue higher education, desire to have a small family size, avoidance of STDs and disgrace, influenced by sex-partner and peers respectively.

The adolescent will also see that the utilization of contraception is effective in preventing unwanted pregnancies, avoidance of STDs and disgrace in the community. This will be a perceived benefit for him/her to be motivated for its usage. There will be perceived barriers such as; cost and availability of contraceptives, religious beliefs regarding the use of contraceptives, limited knowledge about the use of contraceptives, fear of related side effects of contraceptives, inconveniences getting the method for his/her school time, and partner demand for no use and unfriendly provision of the service as well.

Cues to action may be internal and external. Internally, the physiological perception of missing a period after sex will trigger a need for contraception and externally acquisition of information from the media, health authorities and parents on contraceptive use will also motivate the girl to use contraceptives.

The modifying and enabling factors in the model combines with a person's perception of pregnancy and decision making to influence the use of contraceptive. Demographic characteristics such as age, gender, ethnicity, income and educational level may be connected with contraceptive use. In early adolescence the decision to use contraceptives may not be there as one may not yet have started indulging in copulation as the age increases the motivation will or increases due to exposure to sexual activities.

Minority ethnic groups have little access to public services and this may not give them access to contraceptive services.

Social factors like religion may also influence ones decision in using contraceptives since some religious groups do not allow the use of contraceptives. Girls may also be involved in sexual activities when they become intoxicated with alcoholic beverages or illicit drugs and their ability to decide on contraceptive use may be affected. Females who psychologically have self-esteem and self-control will have the determination of achieving the highest possible level in their set goals and would not let pregnancy to be a hindrance. Sexual behavior or reproduction also determines the decision to use contraceptives. Some females have an early sexual debut which is usually unplanned and contraceptive use may not be used. Others have multiple sexual partners whose sexual demands may be different. Having sex for money where the man with money may not be comfortable with contraceptive use.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Prevention of unwanted pregnancies and Sexually Transmitted Diseases (STDs) through the effective use of contraceptives is a global public health problem (Osborn et al, 2015). Consequently, the idea of effective contraceptive use has been acknowledged as key component among the Strategic Development Goals (Osborn et al, 2015). A research conducted in South Africa found pregnancies among adolescents as significant health and developmental problems in Africa (Wood, Maepa, and Jewkes, 1997). Even with increased research directed at adolescence sexual behavior in recent years the menace of unplanned pregnancy, abortion and STDs including HIV/AIDS among adolescents have increased (Fagbamigbe, Adebawale, and Olaniyan, 2011; Wellings et al., 2006). Furthermore, risks associated with pregnancies among adolescents aged 15-19 has increased over the years with a widening gap between age of sexual debut and age of marriage and increased sexual activity prior to marriage (Bearinger, Sieving, Ferguson, and Sharma, 2007; Mensch, Grant, and Blanc, 2006).

According to Appiah-Agyekum and Kayi, (2013), health care organisations places emphasize on educating people on the need to have knowledge concerning reproductive health matters as a result of the increasing population growth globally. Evidence from the Ghana Health Service shows that educating and meeting the reproductive health needs of Ghanaian adolescents would foster the development and quality of life of Ghanaians (GHS, 2000). In spite of much effort and attention dedicated to the educating adolescents on their reproductive health needs the level of utilization of contraceptives is low (Awusabo-Asare, Abane and

Kumi-Kyereme, 2004; Yidana et al, 2015). Therefore, contraceptive use over time may increase when the knowledge of people about contraceptive methods and their mindset on reproductive health services increases (Longwe, Huisman and Smits, 2012). According to the UNPF, (2001) adolescents who are sexually active adolescents aged between 15 to 19 years old, may not use contraceptives in spite of the dangers related to teenage pregnancies (UNPF, 2001). There have been an upsurge in unwanted pregnancies, maternal mortalities and the degree of STD infections although most governments have designed and implemented policies directed towards meeting the health needs of adolescents (Aninanya et al., 2015). This situation demands further development in the reproductive health needs of adolescents.

Child health and reproductive experts agree that the use of effective means of contraceptives could prevent dangers associated with early and unplanned sexual engagements (Bankole et al., 2007; Opoku and Kwaununu, 2011). This could help in resolving the challenge of rapid population growth in Ghana. In Ghana, data obtained from the GDHS, (2014) shows that 99.0% of all women in Ghana and 99.2% of all men in Ghana have knowledge of at least one method of contraceptive. However, the use of contraceptives in Ghana is inadequately encouraged. Adjei et al. (2014), noted that in Ghana there has not been a considerable increase in contraceptive use although efforts to promote its utilization have been over the past thirty years.

2.2 The Adolescent as a Transitional Phase of Growth

The adolescent stage in life is a transition from childhood to adulthood with varying challenges and developmental phenomenon.

This stage of development is associated with distinctive developmental processes and characteristics which should be considered during the implementation of policies and programs related to adolescent health.

According to the WHO (2011), adolescence is a stage in life with specific health and developmental needs and rights. It is also a time to develop knowledge and skills, learn to manage emotions and relationships, and acquire attributes and abilities required for a smooth transition into adulthood (Lloyd CB, 2005; Fares J et al. 2007). Across the globe, societies recognize the distinction between a child and an adult. However, the understanding of this transition phenomenon differs from one culture to the other.

The period from childhood to adulthood is growing longer and more distinct. In most countries, the puberty age appears earlier although in general the timing of menarche in high income countries is marked at 12 to 13 years. At the same time, important social transitions to adulthood are deferred until well after biological maturity. Young people spend more years in education and training, their expectations have changed, and contraceptives are increasingly available to prevent pregnancy globally. This results in young people taking on adult roles and responsibilities such as family formation and employment opportunities.

The adolescent stage is one of the fastest phases of development in humans with several changes (Christie and Viner, 2005). The order of these changes may appear to be universal. However, their timing and the speed of change may differ among and even within individuals. The characteristics of an individual and external factors such as insufficient nutrition and an abusive environment may influence these changes (Eccles et al., 1993; Steinberg and Sheffield, 2001; Youngblade et al., 2007).

The period of adolescence is marked by several biological changes. Some of these changes are physical developments expressed in the form of an increase in height, gaining of muscles, the distribution of body fat and the advancement of body features such as shoulders broaden, and muscle mass increase, increment in the size of the vocal cords and larynx resulting in the deepening of voice.

These developments are attributable biologically to changes in the endocrine system where the production of gonadal sexual hormones are affected by the maturation of the gonads. Thus, this growth phenomenon in adolescents is controlled by a system of complex and interrelated production of several significant hormones in the body (Rogol et al., 2002). These may occur later and over a lengthier period of time among males than in females. Also, the regulation of certain hormones such as vasopressin and oxytocin has the tendencies of influencing how adolescents interact with others in general (Patton and Viner, 2007).

Moreover, during this stage of adolescent, the young adolescent would usually desire to have an independent life and would thereby like to express themselves, their views about certain issues in life against pressure from parental control. (Montgomery, 2005; Zimmer-Gembeck and Collins, 2003).

The danger about this stage of development is that, these adolescents may turn to move away from home in an attempt to be independent and take certain decisions which may jeopardize their future.

2.3 Definition of Contraceptives

A contraceptive may be a device, method and medication used for the prevention of pregnancy (PPFA, 2012). Contraceptives may be grouped into two namely; traditional and modern forms. Modern contraceptive methods includes; the barrier method which is made up of the female and male condoms and the diaphragm, the hormonal methods such as the pill, injectable and implants, Intra Uterine Device (IUD), male and female sterilization (DHHS, 2011; PPFA, 2012).

The traditional methods have existed since ages. This includes; the method of periodic abstinence from sex and withdrawal method whereby males pull out their penis prior to

ejaculation to avoid the deposit of sperms into the vagina of the female. This concept is popularly known as coitus interruptus and has been practice by many since ages (Stewart, McNamee and Harvey, 2013).

2.4 Prevalence of Contraceptive use among Adolescents

The prevalence of contraceptive use is a significant marker of the utilization of contraceptives globally. The global picture of prevalence of contraceptive use as revealed by the United Nations in 2015 shows about 64 % utilization (United Nations, 2015). Developing countries have a prevalence of contraceptive use of 40 % (United Nations, 2015). In Africa, the prevalence has been recorded for various regions within the continent. In Southern and Eastern part of Africa, the prevalence recorded in 2015 are 64 % and 40 % (United Nations, 2015). For the Northern and Western African regions, the prevalence was 53 % and 17 % respectively (United Nations, 2015).

In Ghana, the utilization among adolescent is low as the prevalence recorded in 2014 was 19 % (GDHS, 2014). According to the GDHS (2014), the use of contraceptives in Ghana among female adolescents who are aged from 18 years to 19 years was 18.3 %.

A study by Hagan and Buxton (2012), on knowledge and use of contraceptives and perceptions among adolescents in some Senior High Schools in Ghana revealed a prevalence for contraceptive use of 21 % (Hagan and Buxton, 2012).

Boamah et al., (2014) reported a prevalence of 22.1 % for contraceptive use among adolescents in Kintampo in a cross-sectional study.

According to Nyarko, (2015), there is a relationship between age and contraceptive use. Thus, an increase in age is connected with contraceptives use. Findings from the study by

Nyarko also revealed that adolescents aged 18 to 19 years had prevalence of contraceptive of

31.4 % compared to adolescent aged 15 to 17 years who had a prevalence of contraceptive use as 9.2 % (Nyarko, 2015).

A study done by Agyemang et al., (2019) also reported a prevalence of 18.0 % for contraceptive use among female adolescents in the Ashanti region of Ghana. Kareem and Samba, (2016) in their study also stated a prevalence of 38 % contraceptive use. In 2003, Karim et al., (2003) also recorded a prevalence of contraceptive use as 24.0 % among males and 20.0 % among female adolescents.

2.5 Barriers to Contraceptive Use

2.5.1 Cost

Understanding the potential barriers to utilization of contraceptives among adolescents could foster an increase in utilization and through the development of strategies aimed at promoting contraceptive use and adolescent health in general.

According to Eisenberg, (2013) cost has remained a key barrier to most adolescents in buying contraceptives to use. Although the cost of most contraceptives are quite affordable, most adolescents are unable to afford them as such adolescents may still be living with their parents who may be taking care of their upkeep. Moreover, their partners may not also be in the working class. This was evident in a study done in Adaklu District of the Volta Region of Ghana which also reported the issue of cost of buying contraceptives as an obstacle to the use of contraceptive among adolescents in the Volta Region of Ghana (Agbanyo, 2018).

Another study by Ochako et al., (2015) identified cost as a barrier in the use of contraceptives by adolescents. A study by Yidana et al., (2015) also pointed out cost as a barrier to the use of contraceptives among adolescents.

2.5.2 Knowledge about the use of contraceptives

Knowledge concerning the use of contraceptives may also be one of the most challenging barriers to the use of contraceptives among adolescents. This has become necessary due to the rampant increase in unplanned pregnancies and STDs/STIs among adolescents (Srikanthan & Reid, 2008). A study by Hindin, McGough, & Adanu, (2013), revealed that adolescent's knowledge on various methods of contraceptive and its effectiveness remains a barrier in their utilization of contraceptives. In Uganda, a study on contraceptive utilization reported that knowledge of the method of contraceptive could positively affect the use of contraceptives (Anguzu et al., 2014).

The current situation of knowledge about at least one contraceptive method among females and males in Ghana is 98% and 99% respectively (Amalba, Mogre, Appiah, & Mumuni, 2014). However, this may not necessarily translate into maximum utilization as a study done among adolescents in Sikkim in India by Prachi et al., (2008) reported that an increase in the level of knowledge does not always translate to utilization of contraceptives. Prachi et al., (2008) suggested the need to understand the socio-cultural dimension of a particular society before the introduction of any kind of contraceptives or programmes to facilitate the utilization of contraceptives. This is true because of the cultural dynamics from country to country globally.

2.5.3 Availability of contraceptives

Availability of contraceptives may be a barrier to the use of contraceptives among adolescents. The availability of various contraceptives to adolescents may ensure an extensive utilization of contraceptives. The Millennium Development Goals Acceleration Framework in Ghana mentioned the need to make available various contraceptive methods in health facilities to foster a wider utilization of contraceptives in the country (Apanga & Adam, 2015). According to Egede et al., (2015), promoting the availability of wide range of contraceptive products could help in the control of population growth, the spread of STDs and the rate of abortion among adolescents.

Eisenberg, (2013) further argued that improving availability universally to the most effective contraceptives without cost-sharing could promote the quality of life of adolescents and subsequently save cost in health care.

Making available various contraceptives to adolescents will lessen unwanted pregnancies and STDs (Morhe, Tagbor, Ankobea, & Danso, 2012). Health care givers are therefore encouraged to make available various kinds of contraceptives to communities (Amalba et al., 2014).

2.5.4 Religious believes

The religious belief system of a particular community may influence their way of life and their response to health care utilization. Thus, religion plays a central role in the life-style of people globally. It could control the behavior of individuals and groups. This may therefore have the tendency to affect the rate of utilization of contraceptives as some religions may not endorse the use of contraceptives. A multi-center study done in Ghana, Cameroon and Malawi revealed the influence of religion on contraceptive use (Doctor, Phillips, & Sakeah, 2009).

According to Akintunde, Lawal, & Simeon (2013), in central, western and northern Nigeria, there has been reported differences in contraceptive use among women in their reproductive age due to their religious belief systems.

However, in a study in the Upper East of Ghana, there was no significant association between religion and the use of contraceptives (Achana et al., 2015). Also, Ngome & Odimegwu (2014) did not report any relationship between contraceptive use and religion.

2.5.5 Influence from partners

Influence from sexual partners plays a vital roles in contraceptive use. In the African context, decisions from men may be very paramount in sexual relationships. Anguzu et al., (2014) found that in most parts of Sub-Saharan Africa, men are the main deciders in the use of contraceptives. A study revealed that 46% of Ghanaian men believe women who uses contraceptives have the tendency to become sexually immoral (Burdette, Haynes, Hill, &

Bartkowski, 2014). Another study by Apanga & Adam, (2015), revealed that women in the Upper East Region of Ghana did not access family planning service because their partners did not endorsed the use of contraceptives.

A study by Do & Kurimoto, (2012) showed that two out of every five women will reject the use of contraceptives due to the influence from their partners.

2.5.6 Fear of the side effects of contraceptives

Reported side effect of contraceptive use such as weight gain could affect utilization. Such reported side effect may be mixed with misconceptions and ideologies which may put some fear in potential users of contraceptives. A study by Boamah et al., (2014) revealed that people carry the misconception that even the lubricants in condoms was infectious to women and could potentially pass on the HIV virus to women. Other studies in Kenya also confirmed some women fear that the use of contraceptives may affect negatively their possibilities of given birth in future (Ochako et al., 2015; Nalwadda, Mirembe, Byamugisha, & Faxelid, 2010). Such fallacies and belief systems may go a long way to undermine the coverage of contraceptive utilization among people needing it. According to Chernick et al., 2015, some women are of the view that the use of Intrauterine device could have effect on the womb.

2.6 Methods of Contraceptives

2.6.1 Barrier method

One of the most common barrier methods of contraceptives is the male and the female condoms. The male condom comes as a sheath which is usually put on an erected penis before intercourse. This is designed to accumulate semen and prevent the entry of sperms into the vagina after ejaculation. The male condom has a lubricant and a space at its base or tip which accumulates the secreted materials during intercourse. The female condom is designed as an oiled polyurethane sheath that has a ring at the base. This is usually inserted into the vagina of the female with the purpose of accumulating semen just as the male condom during intercourse.

Another barrier method is the diaphragm which comes as a silicone dome with an elastic rim that is inserted into the vagina with the intention of covering the cervix. This device when inserted will prevent the entry of sperms into the vagina during intercourse. However, this must be kept for period of at least six to seven hours after intercourse so that active sperms may be destroyed by the acidic substance in the vagina (Stewart et al, 2013).

2.6.2 The hormonal method

The use of hormones may serve as a method of contraceptive in helping to prevent pregnancies. This usually referred to as the hormonal method of contraceptives. An example is the oral contraceptive pill which is a mixture of artificial hormones that subdues ovulation by keeping the estrogen level high in females who adopts these methods. In keeping the estrogen level high, the pituitary gland is prevented from communicating to the ovaries to release an egg for fertilization. Women are expected to swallow this oral contraceptive pill daily at equal time intervals in order to prevent pregnancy. Women are at liberty to stop the intake of the pill at any time when they decide to have a child.

Another hormonal method of contraception is the Emergency Contraceptive Pill (ECP) which is also used for the prevention of pregnancy within some few days after an unprotected intercourse. This pill can be administered as one or two doses at 12 hourly.

The Progestin-only pills (POPs) is also another hormonal method used for interrupting the ovulation process and the function of sperms through the thickening of the cervical mucus resulting in difficulties for sperms to enter the fallopian tubes. This therefore prevents the fertilization of the egg and a subsequent conception.

There are other forms of the hormonal contraceptives namely; implantable rods and injectable birth control. Implantable rods are designed in the shape of a flexible match-stick rods which are inserted under the upper arm skin of a woman. This is done to release progestin to interfere

with conception process. This device can be kept under the skin to function for a period of five years after which it can be replaced. (NCBI, 2010) (FDA, 2011).

The Injectable birth control works through the injection of a progestin hormone called DepoProvera® in the female arm or buttocks once in every 3 months to prevent pregnancy (NCBI, 2010) (FDA, 2011).

2.6.3 Sterilization method

The sterilization method of contraceptive can be applied to both males and females respectively. The female sterilization is what is usually termed as tubal ligation. This is done through the disruption of the egg tubal patency to stop sperms from fertilizing the egg (Stewart et al., 2013). With this method, incision is made above the pubic hairline to surgically tie up the egg tubes. With the male sterilization which is also known as vasectomy, the tubes that leads the testicles are cut and tied off to prevent the flow of sperms from the testicles to the penis (Kennedy, Rivera and McNeilly, 1989).

2.6.4 IUD

The intrauterine device popularly known as the IUD is a small T-shaped flexible device which is usually inserted in the uterus to block the penetration of sperms into the fallopian tube. This is done to prevent conception. The device may remain in the uterus for ten years until it is replaced again. Females may choose to remove the device any time they desire to be pregnant. The implantation and removal of the device should be done by a trained reproductive health care provider. The most commonly known IUD is the nylon plastic coil IUD.

Another type of IUD is the copper IUD which turn to release a small amount of copper into the uterus thereby preventing the activities and movement of sperms to fertilize the egg.

The hormonal IUD is another form of IUD which works through the release of progestin hormone into the uterus and subsequently resulting in the thickening of the cervical mucus.

The outcome is that sperms are prevented from moving to fertilize the egg (FDA, 2011).

2.6.5 Traditional methods

The traditional methods popularly known as the withdrawal method (coitus interruptus) has been there since ages. With this method, the consciousness of males in the prevention of pregnancy plays a major role. During intercourse, the male is required to withdraw the penis from the female vagina any time there is that feel for ejaculation. This method is usually not reliable because about 40% of men may still have sperm present in the pre-ejaculate (Kilick et al., 2011).

The breast feeding process or stage could be used as contraceptive in women. This is the Lactational Amenorrhea Method (LAM) where there may be an absence of menstruation in a woman who is regularly breastfeeding. In the event of breast feeding, the resumption of the ovulation process in women may be delayed and can therefore be used as a form preventing pregnancy (Stewart et al., 2013; Kennedy et al, 1989).

The periodic abstinence is another natural way of preventing pregnancy. With this method, females are expected to be abreast with their monthly menstrual cycle and to know which days are deemed safe for sexual intercourse and which days are not (Stewart et al., 2013). After intercourse, sperm may be able to live in the vagina for five days after which they may die. As a result, this method is known to have some drawbacks since surviving sperms may cause conception after the safe period (Stewart et al., 2013).

2.7 Knowledge on Contraceptive Use

Over the years, there has been an increasing call for concerns about adolescent reproductive health as a result of the major health related challenges surrounding teenage pregnancy. Adolescents who become pregnant may tend to dropout from school and may subsequently not

have the resources to take care of babies (Whitaker & Gilliam, 2008). The knowledge of contraceptive is therefore significant in the case of these adolescents who are sexually active during this transition period of adolescent.

According to Kinaro et al., (2015), the utilization of contraceptives among adolescents known to be sexually active is low. In Ghana, the rate of adolescent pregnancy still remains high (12.2 % recorded in the year 2007). A research conducted in the Kintampo North and South districts in Ghana discovered that the rate of adolescent pregnancy in that region is more than the average recorded in the whole country. According to the WHO, (2003) maternal mortality ratio in adolescents is times more than those in women who are in their twenties.

According to the UNFPA (2005), maternal mortality in the lower and middle-income countries can be averted by 20 and 30 percent through the use of contraceptives. However, access to family planning among adolescents has been bounded by socio-cultural practices (UNFPA, 2005).

The concept of reproductive health appears to be known by most adolescents. However, various studies have revealed that most adolescents in general do not have a broad understanding of the concept of contraceptives and the various methods of contraceptives available (Martins et al., 2006; Enuameh et al., 2014). Numerous reasons may contribute to this lack of broad understanding. According to Martin et al., (2006) adolescents in Brazil who are not much educated are sexually active at a earlier ages. However, such adolescents do not have sufficient knowledge concerning the use of contraceptives.

According to Woods and Jewkes (2006), although contraceptive services are reachable and without cost, a third of female adolescents in South Africa may become expectant mothers by the time they attain the age of 19 years. Woods and Jewkes (2006), explained that such adolescents rely on advice and directions from trusted friends who may not be in the position

to better explain the significance of contraceptives. Such adolescents also believe that the information concerning reproductive health they receive from parents, teachers and others may not be adequate.

Also, Woods and Jewkes, (2006), revealed that adolescents these adolescents have the notion that the act of having and changing sexual partners has the tendency to prevent adolescents from becoming pregnant as a result of the differences in the blood of each partner.

Woods and Jewkes (2006), also revealed that there is some level of inconsistencies in the use of contraceptives by these adolescents. This inconsistency has been attributed to the failure on the part of some reproductive health workers to accept such young adults as clients who should be allowed to utilize their service.

In Ghana, a study conducted on adolescents in high schools in the Upper East region reported that most female adolescents would relatively desire not be branded as bad girls by their sexual partners than to go assessing contraceptive services (Rondini and Krugu 2009).

Awusabo-Asare et al. (2006) reported an insufficient knowledge of reproductive health matters among adolescents. Sixty and fifty-three percent of the adolescent male and females in that study had knowledge that a woman could become pregnant after having sex for the first time.

Okpani and Okpani, (2000) in a study conducted among female adolescent Nigerians revealed that these young adolescents preferred the withdrawal form of contraceptives since they believe the other forms of contraceptives may present with some side effects and also their parents may not support the use of such contraceptives.

Awusabo-Asare and Biddlecom (2006) in Ghana, reported that adolescents know of at least one form of contraceptive and most (60 %) females and males (58.5 %) turn to discuss the choice of contraceptive with their sexual partners.

A study which was conducted among adolescents in Ghana, Burkina, Malawi and Uganda revealed that about 65 % of female adolescents and 66 % male adolescents have assessed and utilized contraceptive services (Biddlecom, Munthali and Singh, 2007). The study further revealed that majority (89.2%) of female adolescents from Malawi, Uganda and Burkina were more likely to use the traditional forms of contraceptives (Biddlecom et al. 2007).

In Brazil, adolescents showed an insufficient knowledge about the use and methods contraceptives (Martins et al., 2006). However, among those who use contraceptives, the male and female condoms were predominantly used followed by the pill method (Martins et al., 2006).

2.8 Factors influencing Contraceptive Use

Although there have been several campaigns directed towards influencing the patronage of contraceptive services, studies have shown that utilization of various forms of contraceptives is low (8 %) in the Sub-Saharan region of Africa (Stephensen et al., 2007).

Several factors may potentially influence the utilization of contraceptives globally. In a study by Okezie et al., (2010) education and the media were identified as factors influencing the use of contraceptives. Okezie et al., (2010) also indicated that demographic and socioeconomic factors turns to influence the use of contraceptives in general. According to Okezie et al., (2010) females who are educated would prefer having sizable family which they can take care of and enjoy a better quality of life.

Okezie et al., (2010) also argued that the mass media could play a major role in a campaign to enhance the utilization rate of contraceptives.

Among women who are married in the Wassa Amenfi District of Ghana the discussion of contraceptive methods with a partner plays a significant role in enhancing the utilization of contraceptive products (Baidoo, 2013).

Kweligeya, (2005) mentioned that women who plan the spacing of their children with their husbands appears three times more likely to utilize contraceptives products.

2.9 Various Contraceptives available in the Chorkor Community

A pilot survey conducted by the investigator in the month of June, 2017 showed that, the contraceptives available at the various health centers, pharmacy shops and chemist shops in the Chorkor community were male and female condoms, cervical cap, combine oral contraceptive (COC), diaphragm, Progesteron only pills (POP). The injectables found were Depo provera which is used every 3 months and Noriginon which is used every month.

CHAPTER THREE

METHODOLOGY

3.1 Study Design

This survey adopted a cross-sectional study design. This study design involves data collection using a questionnaire.

3.2 Study Area

The survey was conducted at Chorkor, a suburb of the Greater Accra the capital city of Ghana. Chorkor is a fishing community in the Accra Metropolitan Assembly with mainly a youthful population. Consequently, fishing, fish mongering and petty trading are the major occupation and source of income for the people employing over 16,000 people in the community (GSS, 2015). The fishing is mainly done by the men whiles the women are usually involved in the preservation and marketing of the fish. Chorkor is marked with high rate of fertility which has

been associated to the demand for labour which is basically, kinbased in fishing activities (GSS, 2015). Chorkor is a densely populated community with an estimated population of 344,627, with an annual growth rate averaging 6.0%. Chorkor is one of the poorest communities in Accra with an unemployment rate currently at 12% (AMA, 2010; GSS, 2015).

The Ga-Dangbe are the main inhabitants of this community with an influx of other tribes such as the Akans, Ewes and others (GSS, 2015).

An unpublished pilot survey by the researcher in the month of June, 2017 revealed that the existence of various health centers, pharmacy shops and chemist shops in the community has made access to various types of contraceptives in the Chorkor community possible. Basically, the male and female condoms, cervical cap, intrauterine device (IUD) implant, diaphragm, combine oral contraceptive (COC), Progesterone only pills (POP) are the most common contraceptives available in this community.

Access to commutable roads leading to the capital city and health centers are common in this community. There are community-based cluster of government and private schools providing basic education to the community (GSS, 2015). There is currently no second-cycle educational institution in the community.

3.3 Study Population

Adolescents (people aged 10 to 19 years old) both males and females resident in the community for the past six months who consented to be part of this study.

3.4 Variables in the Study

3.4.1 Outcome variables

Outcome variables in the study includes; knowledge, attitude towards contraceptive use, reported contraceptive use in the past 12 months prior to the survey, factors influencing the use

of contraceptives, willingness to use contraceptive, importance of contraceptives use among adolescents in the Chorkor community.

3.4.2 Independent variables

Independents variables in the study are; age, sex, religion, marital status and education.

3.5 Inclusion Criteria

All adolescent participants who have resided in the community for the past six months before the study who consented (Appendix I) to participate were included in the study. The WHO definition of adolescent refers to people aged 10 years to 19 years old (WHO, 2014).

3.6 Exclusion Criteria

Potential participants who were not willing to participate were excluded, including those who have stayed at the community for less than six months.

3.7 Sample Size Determination

The sample size formula for calculating the number of participants to be enrolled in the study is presented below using the Cochran WG. (1963) sample size formula for a cross-sectional study:

$$n = z^2 p (1-p) / d^2$$

Where n = required minimum sample size

z = confidence level, i.e., 1.96 p = prevalence of contraceptive use among sexually active adolescents from a previous study in Ghana = 38.0 % (Kareem & Samba, 2016).

d = degree of accuracy desired, i.e., 0.05

A 0.05 degree of accuracy was desired with a confidence level of 1.96

Therefore, $n = 1.96^2 \times p(1-p)/0.05^2 = 362$.

3.8 Procedure

Data collection for the study commenced in December 2018 and ended in January, 2019. The survey used the modified form of the World Health Organization (WHO) cluster sampling technique in selecting the study participants. With this method, the community was stratified into five clusters by geographical boundaries or demarcations. Three clusters were selected from the list of five clusters using simple random sampling with the help of a table of random numbers. From the sample size calculation above, the minimum sample size for the study was 362. However, a total of 426 adolescents participated in the study. One hundred and fortytwo (142) adolescents were selected from each of the three clusters. The housing units in the neighborhood have numbered address systems which are used in identifying the housing units and streets. In this survey, a housing unit is a regular dwelling place of a respondent where their household activities usually take place and where their belongings are kept. Where more than one households (one or more people living in the same dwelling and sharing meals together) are found in a house, the first household identified for selection of an adolescent was numbered as number 0001 with the others following sequentially until the sample size was attained. The coding of the households was done by the trained research assistants and the investigator.

A structured questionnaire examining the demographic characteristics (age, sex, religion, marital status and education) of the study subjects and questions relating to the objectives in the study were administered to participants by the investigator and her team comprising of four research assistants.

Pretesting of the questionnaire was done among 20 adolescents selected from Mamprobi, a neighboring community which is also a suburb of Accra. Anomalies realized out of the pretesting stage were corrected before the commencement of the actual data collection.

Knowledge of contraceptive use was defined as an awareness of contraceptive methods available. The knowledge of the types of contraceptives available was graded in levels. Low level of knowledge referred to participants who were able to identify up to three (0-3) types of contraceptives. Those who were able to identify up to six types of contraceptives were assigned an average level of [4-6] knowledge. High level knowledge were those who were able to identify more than six types of contraceptives methods available.

Factors influencing adolescent use of contraceptives were presented on the questionnaire. These factors included; desire to avoid pregnancy, religious belief systems, plan to pursue higher education, desire to have a small family size, avoidance of STDs and disgrace, influenced by sex-partner influenced by peers. For each factor, the respondents were asked to indicate “yes” or “no” to show whether the factor influenced their use of contraceptive or not.

In identifying the importance of contraceptive use, the respondents were asked to mention the benefits they believe could be derived from the use of contraceptives. Participants who cannot read and write were assisted by the research assistants in translating the questionnaire into the vernacular and then translated back to the English language to solicit responses from them. In the context of this study, illiterates refer to participants who were not able to read and or understand the English language while a literate refers to those who could read and understand English language.

3.9 Statistical Analysis

Data from this survey was entered into IBM SPSS version 20 and cleaned to avoid outliers and discrepancies during analysis. The IBM SPSS version 20 used for the analysis. Background

characteristics of study participants was analysed descriptively and presented as counts and proportions for categorical variables. Normally distributed variables were analysed as means and standard deviations and median (inter-quartile range) for nonnormally distributed variables. Current use of contraceptives was calculated as the proportion of participants who reported a use of any form of contraceptive in the past 12 months before the survey was done. Univariate and multivariate analysis of both dependent and independent variables was done to establish associations among variables. Multiple logistics regression model was employed to calculate both adjusted and unadjusted odds ratios. Odds ratios outcomes were accepted at the 95% confidence interval and a 0.05 level of significance.

3.10 Ethical Considerations

Ethical clearance for the research was sought from the Ethical and Protocols Review Board of the Kwame Nkrumah University of Science and Technology.

Permission was obtained from the Assemblyman of the community to commence the study. Also, informed consent was sought from participants. Participation in this study was voluntary. There was no financial benefit or risk in participating in this study. Participant's privacy and confidentiality of information were paramount in this study. To ensure privacy of information, names of participants did not appear on the write-up. Also, information disclosed by respondents was not made available to any third party to this study. Data collected was secured in a locked cabinet with only the researcher and the ethical committee having access to the cabinet. Codes were assigned to each questionnaire. Parental consent and child assent from participants below 18 years were sought. Detailed consent and assent forms are attached as an appendix to this thesis.

3.11 Quality Assurance

The principal investigator ensured strict adherence to quality assurance by ensuring that all questionnaires were properly filled, proper coding of questionnaires are done and interviewing of appropriate participants. This was achieved through the training given to the data collectors and the pre-testing of the questionnaire.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Demographic Characteristics of Study Participants

Four hundred and twenty-six (426) adolescents in the Chorkor community participated in the study (from table 4.1). There were a total of 206 (48.4 %) males and 220 (51.6 %) females in the study (from table 4.2 below).

The average age of the study participants was 14.6 years with a standard deviation of 1.9 years for males. Females had an average age of 14.9 years with a standard deviation of 2.2 years. The overall average age for the study was 14.8 years with a standard deviation of 2.0 years. The minimum age recorded was 11 years and the maximum age was 19 years. Almost half (47.7 %) of the adolescents were in age group 10 to 14 years. One hundred and sixtythree of the adolescents (38.3 %) were within the age group 15-17 years. The age group 18-19 years had

14.1 % of the adolescents. The study did not show any statistically significant difference in the age distribution age in groups (p -value = 0.079). The data on age distribution is presented on table 4.1 below.

The educational status of the participants were also presented on table 4.1 below. Most (57.5 %) of the adolescents were Junior High School students. Primary school students were 15.5 %. Vocational/technical class were 12.4 %. Senior High School students were 8.9 % of the entire population of participants. About six percent (5.7 %) of the participants were tertiary students. The study recorded a p -value of 0.007 for education signifying a statistically significant difference in level of education as majority (57.5 %) of the participants were

Junior High School students.

Students were the majority (80.3 %) in this study. Traders among the adolescents were 12.2 %.

Artisans and unemployed were each represented by 3.3 %. The study presented a statistically significant difference among the type of occupation (p -value of 0.028).

Christians were in the majority (95.1 %), while the rest (4.9 %) were Moslems (p -value = 0.083). All (100.0 %) the study participants were single (see table 4.1 below).

Table 4. 1 Demographic Characteristics of Study Participants

Variable		Male	Female	Total	P-value
N (%)	N (%)	N (%)			
Age group					
10-14		104 (24.4)	99 (23.2)	203 (47.7)	0.079
15-17		81 (19.0)	82 (19.2)	163 (38.3)	
18-19		21 (4.9)	39 (9.2)	60 (14.1)	
Current education					
Primary		20 (4.7)	46 (10.8)	66 (15.5)	
J.H.S		134 (31.5)	111 (26.1)	245 (57.5)	
Vocational/Technical		22 (5.2)	31 (7.3)	53 (12.4)	
S.H.S		20 (4.7)	18 (4.2)	38 (8.9)	

Tertiary	10 (2.3)	14 (3.3)	24 (5.6)	0.007
Occupation				
Artisan	4 (0.9)	10 (2.3)	14 (3.3)	
Fishing	3 (0.7)	1 (0.2)	4 (0.9)	
Trading	17 (4.0)	35 (8.2)	52 (12.2)	
Unemployed	5 (1.2)	9 (2.1)	14 (3.3)	
Student	177 (41.5)	165 (38.7)	342 (80.3)	0.028
Religion				
Christian	191 (44.9)	213 (50.1)	404 (95.1)	
Moslem	14 (3.3)	7 (1.6)	21 (4.9)	0.083
Marital status				
Single	206 (48.4)	220 (51.6)	426 (100.0)	

The mean age (s.d) in years for males is 14.6 years (1.9 years), for females is 14.9 years (2.2 years). The overall mean age (s.d) is 14.8 (2.0). Source: field data 2019.

4.2 Demographic Characteristics and the use of Contraceptives by Gender among

Adolescents in Chorkor

Table 4.2 gives the demographic characteristics and the use of contraceptives among adolescents in the Chorkor community. The prevalence of contraceptive use among the male study participants was 18.4 %. The females recorded a prevalence of contraceptive use of 24.5 %. The overall prevalence of contraceptive use among the participants was 21.6 %.

Among the users of contraceptives, those with vocational/technical education were 30.7 %. Those with SHS educational background were 26.7 % while those with tertiary education were 25.3 %. Thus, majority (97.3 %) of the contraceptive users were educated beyond primary level of education.

More than half (61.3 %) of the contraceptive users were in the age group 18-19 years. The age group 15-17 years had 38.7 % of the contraceptive users.

Again majority (75.31%) of the contraceptive users had education above primary level. With respect to occupation; 5.3 % were artisan, 16.0 % were traders, unemployed were 8.0 % and students were the majority (70.7 %). Most (94.7 %) of the contraceptive users were Christians with Moslems taking a small proportion of 5.3 %. All the contraceptive users in this survey were single.

Table 4. 2 Demographic characteristics and the use of contraceptives among adolescents in Chorkor

Characteristics	Contraceptive use			P-value
	Male	Female	Total	
	N (%)	N (%)	N (%)	
Age group				
15-17	14 (18.7)	15 (20.0)	29 (38.7)	0.334
18-19	16 (21.3)	30 (40.0)	46 (61.3)	
Current education				
Primary	1(1.3)	1 (1.3)	2 (2.7)	0.828
J.H.S	5 (6.7)	6 (8.0)	11 (14.7)	
S.H.S	6 (8.0)	14 (18.7)	20 (26.7)	
Vocational/Technical	9 (12.0)	14 (18.7)	23 (30.7)	
Tertiary	9 (12.0)	10 (13.3)	19 (25.3)	
Occupation				
Artisan	1 (1.3)	3 (4.0)	4 (5.3)	
Trading	4 (5.3)	8 (10.7)	12 (16.0)	

Unemployed	1 (1.3)	5 (6.7)	6 (8.0)	
Student	24 (32.0)	29 (38.7)	53 (70.7)	0.462
Religion				
Christian	26 (34.7)	45 (60.0)	71 (94.7)	
Moslem	4 (5.3)	-	4 (5.3)	0.023
Marital status				
Single*	30 (40.0)	45 (60.0)	75 (100.0)	
Total number of contraceptive use	38 (41.3)	54 (58.7)	92 (100.0)	
Total number of participants	206 (48.4)	220 (51.6)	426 (100.0)	Prevalence
of contraceptive use (%)	(18.4)	(24.5)	(21.6)	

Source: field data 2019. *All participants were single.

4.3 Use of Contraceptives among Adolescents in Chorkor

The use of contraceptives is common among adolescents in Chorkor. Some of the adolescents participating in this study reported having sexual partners. Table 4.3 illustrates the use of contraceptives by these adolescents. Out of the number of contraceptive users, 89.3 % admitted having one sexual partner. Those who reported having two sexual partners were 2.7 %. Eight percent (8 %) of the users of contraceptives claimed they have three or more sexual partners.

Unprotected sexual behavior was also recorded among the participants. Eighty-four percent (84 %) admitted ever having unprotected sex with their partners. Four (6.2 %) participants out of the contraceptive users mentioned they used contraceptives during their first intercourse. Three percent (3.0 %) explained they had problems using contraceptives in the past. Sixty-seven participants ever changed the method of contraceptive.

For the duration of contraceptive use, 73.9 % of the participants who use contraceptives claimed they have been using contraceptive for about a year now, whereas 26.1 % admitted using contraceptives for 1-3 years.

Willingness to continue with the use of contraceptives was found in 97.3 % of the participants who use contraceptives.

The mean age at first intercourse among the adolescent males was 16.3 years (1.5 years), females was 14.5 years (1.6 years). The overall mean age at first intercourse was 15.2 years (1.8 years).

Thirty-seven (50.0 %) out of the 92 users of contraceptives in this survey admitted having sexual intercourse at least once a week. About forty-seven percent (47.3 %) had sex at least once a month and 2.7 % had sex once a year.

Figure 4.1 describes the methods of contraceptives currently in use by adolescents in Chorkor. About forty-eight percent [47.8 %; n = 44] of the adolescents who are currently using contraceptives are using condoms. About eleven percent [10.9 %; n = 10] of the adolescents are currently using implant/injectable as a contraceptive method. IUD is currently being used by 8.7 % (n = 8) of the adolescents for contraceptive purposes. About seventy-one percent [70.7 %; n = 65] of the adolescents are currently using natural methods of contraceptives. Periodic abstinence as a contraceptive means is currently being used by 65.2 % (n = 60) of the adolescents and 16.3 % (pills) mentioned they are currently using pills as a contraceptive method.

Figure 4.2 describes the source of information about contraceptive use among the adolescents in Chorkor. Multiple responses were documented. Most (62.2 %) of the adolescents acquired information about contraceptive use from the media. About forty-three percent (43.2 %) of the adolescents got their information concerning the use of contraceptives from friends. About thirty percent (30.3 %) was obtained from health providers. Two adolescents (0.5 %) mentioned that they obtained their information from relatives.

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Table 4. 3 Use of contraceptives among adolescents in Chorkor

Characteristics			Contraceptive use			P-value
N (%)	N (%)	N (%)	Male	Female	Total	
Number of sexual partners						
1			27 (36.0)	40 (53.3)	67 (89.3)	0.453
2			-	2 (2.7)	2 (2.7)	
> = 3			3 (4.0)	3 (4.0)	6 (8.0)	
Had had engaged in unprotected sex before			25 (33.3)	38 (50.7)	63 (84.0)	0.570
Use of contraceptive during first intercourse			3 (4.6)	1 (1.5)	4 (6.2)	0.293
Had problems using contraceptives in the past			1 (1.5)	1 (1.5)	2 (3.0)	0.682
Ever changed the method of contraceptive			29 (43.3)	38 (56.7)	67 (100.0)	0.428
Duration of contraceptives use						
0-1yr.				18 (26.1)	33 (47.8)	51 (73.9)
1-3 yrs.			8 (11.6)	10 (14.5)	18 (26.1)	0.575
Willingness to use contraceptives			29 (38.7)	44 (58.7)	73 (97.3)	0.643

Number of times of sexual intercourse

At least once/week	11 (14.9)	26 (35.1)	37 (50.0)	
At least once/ month	17 (23.0)	18 (24.3)	35 (47.3)	
At least once /year	1 (1.4)	1 (1.4)	2 (2.7)	0.249

The mean age at first intercourse among adolescent males is 16.3 (1.5), females was 14.5 (1.6). The overall mean age at first intercourse was 15.2 (1.8). Source: field data 2019.



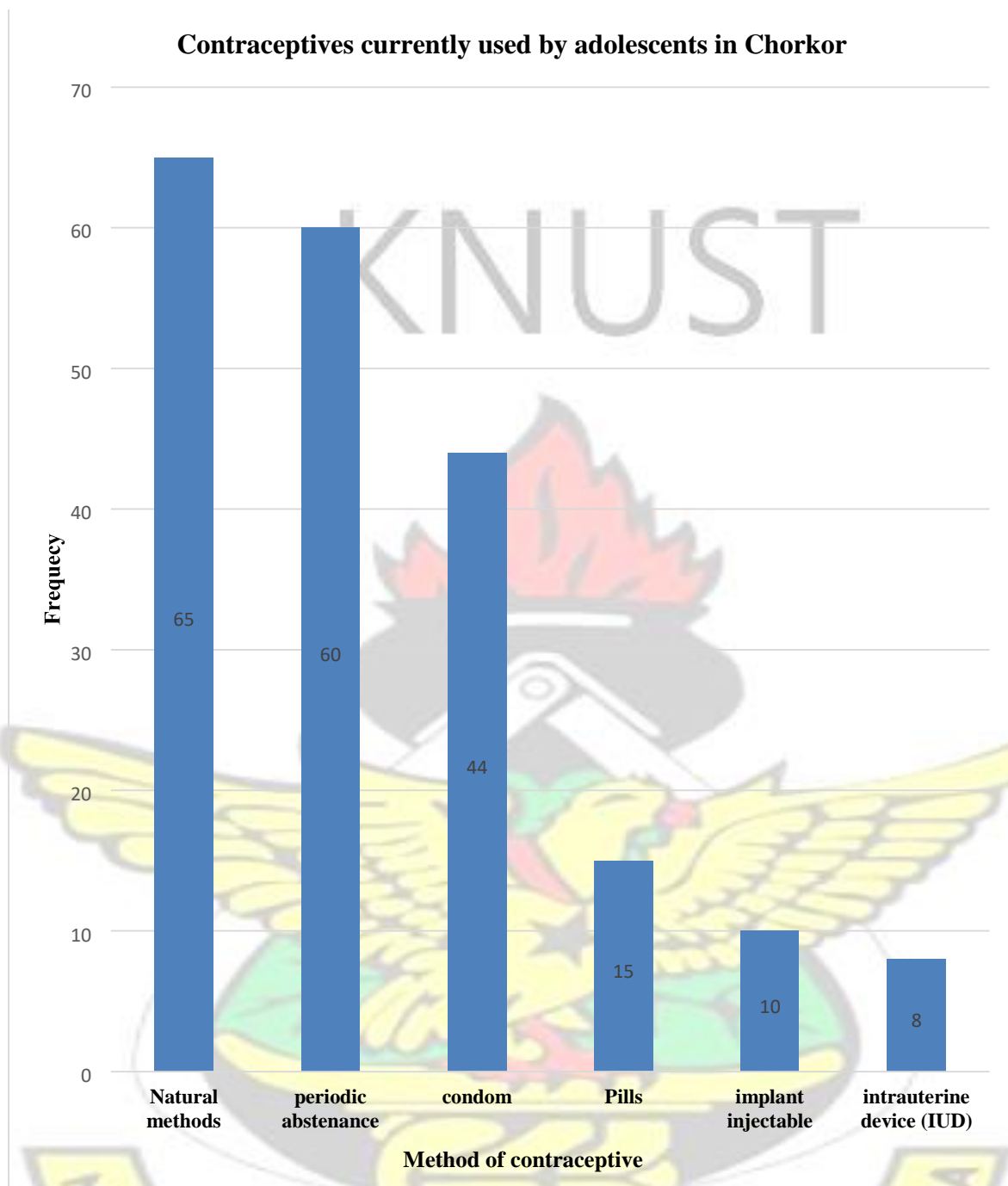


Figure 4. 1: Contraceptives currently used by adolescents in Chorkor. Source: field data 2019

4.4 Level of knowledge about the types of Contraceptives among the Adolescents

This study also assessed the level of knowledge and knowledge about the types of contraceptives among the adolescents. The level of knowledge about the types of contraceptives methods was graded in three categories (levels). Participants who were able to identify up to three [0-3] types of contraceptives were classified as having low level of knowledge. Participants who were able to identify up to six types of contraceptives were assigned as an average level [4-6] knowledge. Participants who were able to identify more than six types of contraceptives methods were deemed to have high knowledge. Majority (95.3 %) of the participants had low level of knowledge about contraceptive. An average level of knowledge about contraceptives was recorded in 4.7 % of the adolescents. The study did not however show any significant difference between males and females in terms of the level of knowledge about the types of contraceptives to the adolescents (p -value = 0.498). With respect to the knowledge of the types of contraceptives, 2.6 % of the adolescents knew about breastfeeding as a method of contraceptive. The use of condom as a contraceptive was known by majority (84.4 %) of the adolescents. About four percent (3.8 %) knew about implant/injectable as a contraceptive method. About ten percent (10.3 %) of the adolescents had knowledge about the use of IUD for contraceptive purposes. About seventy percent (69.5 %) of the adolescents knew about natural methods of contraceptives. Periodic abstinence as a contraceptive means was known by 11.7 % of the adolescents. Thirty-one percent (31.0 %) mentioned they knew the use of pills as a contraceptive method. Knowledge about vasectomy as a contraceptive method was known by 5.9 % of the adolescents. See table 4.4 below for the level of knowledge about the types of contraceptives among the adolescents.

The knowledge of the various contraceptives available to the adolescents at Chorkor; 105 (24.6 %) adolescents indicated that they know condom to be available in their community. Seventy-nine (18.5 %) mentioned that the pill method of contraceptive is available in Chorkor and 2 (0.5 %) adolescents said implant injectable is available in Chorkor. Figure 4.3.

Table 4. 4: Level of knowledge about the types of Contraceptive methods among the Adolescents

Level of knowledge/ types of contraceptives	Gender			P-value
	Male	Female	Total	
	N (%)	N (%)	N (%)	
Level of knowledge:				
Low level	198 (46.5)	208 (48.8)	406 (95.3)	
Average level	8 (1.9)	12 (2.8)	20 (4.7)	
High level	-	-	-	0.498
Knowledge about contraceptive methods:				
Breastfeeding	5 (1.2)	6 (1.4)	11 (2.6)	0.545
Condom	175 (41.4)	182 (43.0)	357 (84.4)	0.688
Implant Injectable	7 (1.6)	9 (2.1)	16 (3.8)	0.453
Intrauterine device (IUD)	18 (4.2)	26 (6.1)	44 (10.3)	0.188
Natural methods	94 (22.1)	202 (47.4)	296 (69.5)	0.438
Periodic abstinence	28 (6.6)	22 (5.2)	50 (11.7)	0.261
Pills	52 (12.2)	80 (18.8)	132 (31.0)	0.009
Vasectomy	11 (2.6)	14 (3.3)	25 (5.9)	0.405

Source: field data 2019.

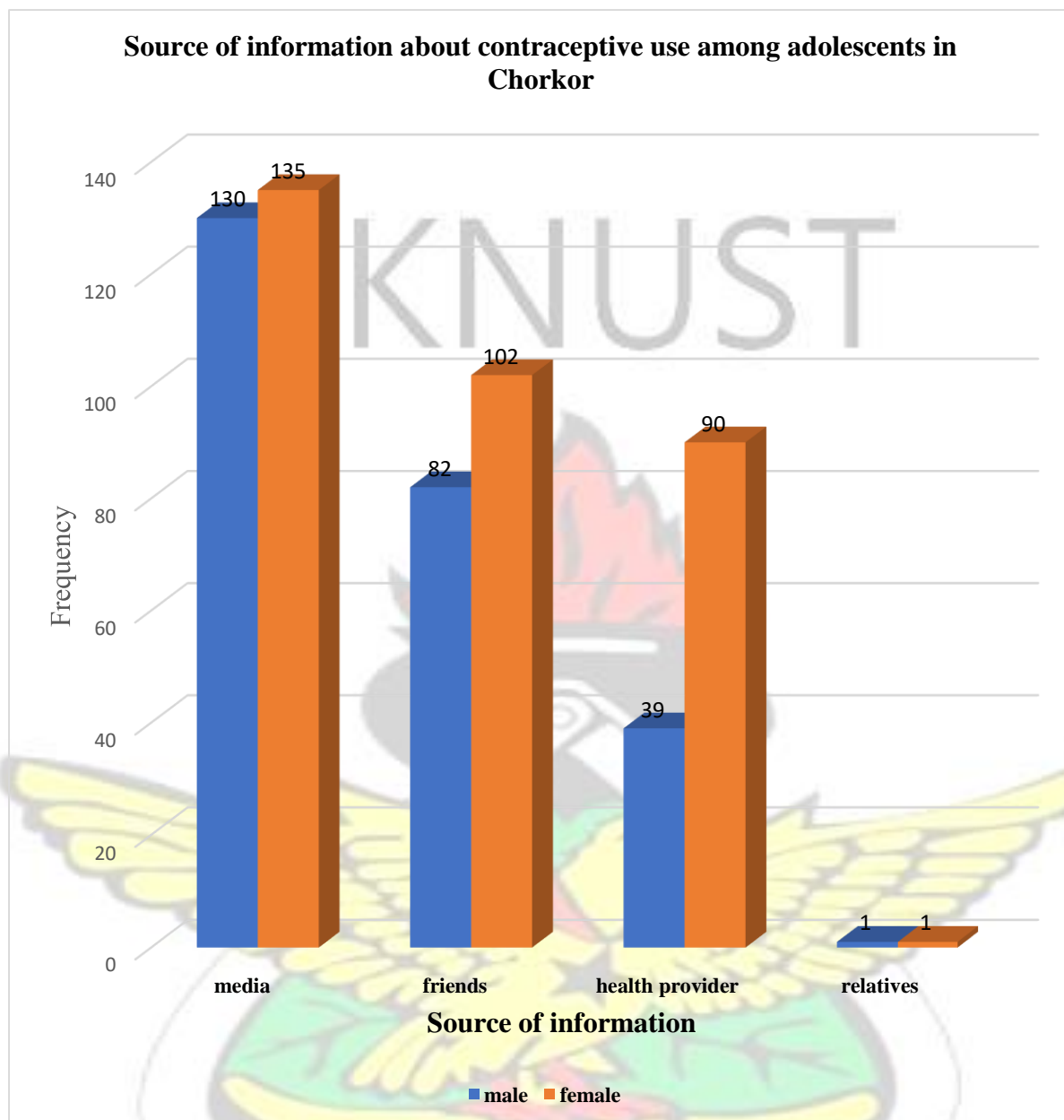


Figure 4. 2: Source of information about contraceptive use among the adolescents Source: field data 2019.

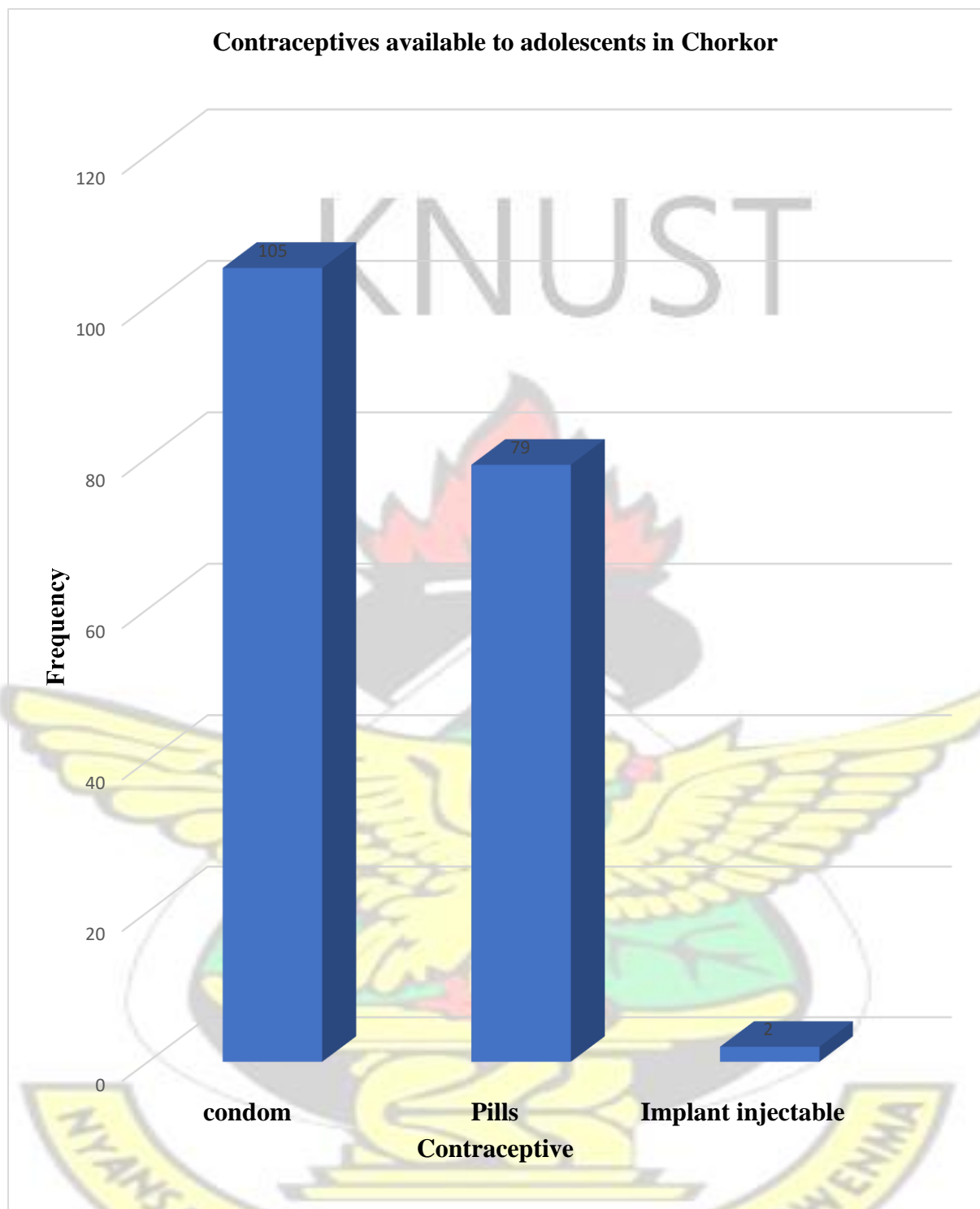


Figure 4. 3: Adolescent knowledge of various contraceptives available to adolescents in the Chorkor community.

Source: field data 2019.

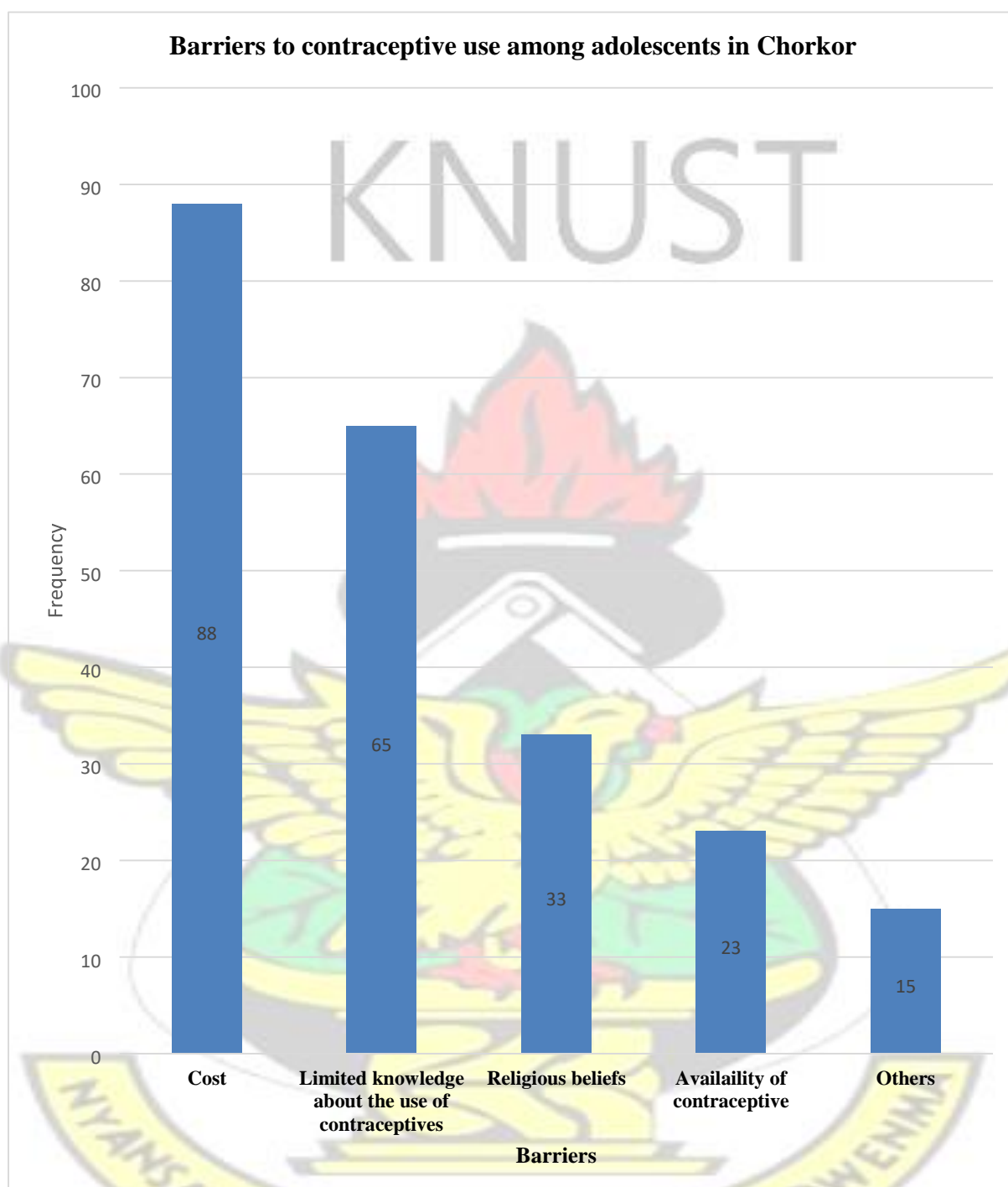


Figure 4. 4: Barriers to contraceptive use among adolescents in the Chorkor community. Other factors includes; not due for intercourse = 10 and unexpected nature of sex = 5. Source: field data 2019.

4.5 Gender differences in perceived factors influencing the use of contraceptives among male and female adolescents in the Chorkor community

Gender differences in perceived factors influencing the use of contraceptives among male and female adolescents in the Chorkor community are presented in table 4.5 below.

In terms of desire to avoid pregnancy, plan to pursue higher education, avoid STDs, avoid disgrace and influence by sex-partner are factors influencing the use of contraceptives, there was no statistical significance between the males and females (p-values; 0.279, 0.384, 0.577, 0.565 and 0.895 respectively).

Table 4. 5: Gender differences in perceived factors influencing the use of contraceptives among male and female adolescents in the Chorkor community

Factors	Gender		Total	P-value
	Male	Female		
N (%)	N (%)	N (%)		
Desire to avoid pregnancy	37 (8.7)	50 (11.8)	87 (20.5)	0.279
Plan to pursue higher education	4 (0.9)	8 (1.9)	12 (2.8)	0.384
Want to avoid STDs	16 (3.8)	14 (3.3)	30 (7.0)	0.577
Want to avoid disgrace	7 (1.6)	5 (1.2)	12 (2.8)	0.565
Influenced by sex-partner	4 (0.9)	3 (0.7)	7 (1.6)	0.895

Source: field data 2019.

4.6 Factors influencing the use of Contraceptives among Adolescents

Logistic regression was use in exploring factors influencing the use of contraceptives among adolescents. Age, education and want to avoid STDs were the factors influencing the use of contraceptives among the adolescents.

Age was significantly associated with the use of contraceptive [AOR = 0.19, 95 % CI (0.12 - 0.32) p-value = 0.001]. Comparing adolescents with tertiary education (reference category) to those in the other categories of education; adolescents with primary education and senior high education were 0.17 times less likely to use contraceptives respectively, adolescents with junior high school education were 0.35 times less likely to use contraceptives and adolescents with vocational and technical education were 0.14 times less likely to use contraceptives. The want to avoid STDs was a factor influencing the use of contraceptives among adolescents [AOR = 91.80, 95 % CI (0.02 - 0.60), p-value = 0.011].

Table 4. 6: Logistic regression of factors influencing the use of contraceptives among adolescents

Factors	AOR	95 % (CI)	P-value
Age (years)	0.19	(0.12 - 0.32)	0.001
Education:			
Primary	0.17	(0.03 - 0.84)	0.030
Junior High School	0.35	(0.03 - 4.07)	0.398
Vocational /Technical	0.14	(0.03 - 0.73)	0.019
Senior High School	0.17	(0.03 - 1.13)	0.067
Tertiary (reference category)	1.00		

Plan to pursue higher education	2.85	(0.18 - 46.13)	0.462
Want to avoid STDs	0.12	(0.02 - 0.60)	0.011
Want to avoid disgrace	0.09	(0.01 - 1.90)	0.120

Source: field data 2019.

4.7 Barriers to Contraceptive use among Adolescents in the Chorkor Community

Barriers to contraceptive use among adolescents in the Chorkor community was examined and presented in figure 4.4. The cost of contraceptives was seen as the main barrier to the use of contraceptives among these adolescents. About twenty percent (20.7 %) of the adolescents see the cost of purchasing contraceptives as a major challenge in the use of contraceptives. About fifteen percent (15.3 %) of the adolescents see limited knowledge about the use of contraceptives as another barrier for contraceptive usage. Religious beliefs as a barrier to the use of contraceptives were identified by 7.7 % of the adolescents. Availability of contraceptives was another barrier to the use of contraceptive among adolescents in Chorkor. About five percent of the adolescents (5.4 %) described the availability of contraceptives as barrier to the use of contraceptives. Other barriers to the use of contraceptive among the adolescents were; not due for intercourse (2.3 %) and the unexpected nature of sex (1.2 %).

4.8 Importance of Contraceptive use by Adolescents

Findings from the study show that the use of contraceptives was significant among the adolescents in Chorkor. Avoidance of unwanted or unplanned pregnancies was the main importance of contraceptive use by these adolescents in Chorkor. Avoidance of STDs and STIs was also identified as important.

CHAPTER FIVE

DISCUSSIONS

The period of adolescent is a unique developmental process with specific characteristics which must be given attention in the designing of programs and policies directed towards health needs of adolescents. It is a process requiring specific health and developmental needs and rights (WHO, 2011). The management and control of the adolescent's fertility is a very crucial public health issue globally. Behavioural pattern during the adolescent period is key to the future of an adolescent (International Planned Parenthood Federation, 1994). This is true because it is stage where knowledge, skills, and abilities are developed significantly (Fares J et al. 2007).

Knowledge about the use of contraceptive therefore plays an important role in the reproductive health of this group. Findings from the study revealed a low level of knowledge about contraceptives. Other studies have also shown that most adolescents have little understanding of contraceptive use and methods respectively (Martins et al., 2006; Enuameh et al., 2014). Another study in Ghana revealed an inadequate knowledge of contraceptives use and reproductive health in general (Awusabo-Asare et al., 2006). Elsewhere in South America, adolescents were found to have little knowledge about the use of contraceptives and the various methods of contraceptives available (Martins et al., 2006).

Several factors may contribute to this deficiency in knowledge. Some of which are attributed to seeking information on reproductive health issues from peer-groups which may turn to be inadequate since most parents and teachers have seemingly neglected their role in reproductive health education for this group (Woods and Jewkes, 2006). Yet others would rather prefer not to be branded as bad girls in expressing their knowledge about contraceptives (Rondini and Krugu 2009). Some have been brainwashed in believing that the idea of having numerous sex partners and changing them is a way of avoiding pregnancy since each partner's blood is

different (Woods and Jewkes, 2006). Also some health care practitioners are usually not willing to accept such adolescents as sexually active persons (Woods and Jewkes, 2006). They are thus seen as too young to know certain things which within the African context should be exclusively known and discussed by adults (Woods and Jewkes, 2006).

This study did not show any significant difference in gender for level of knowledge of contraceptives and the types of contraceptives available to the adolescents.

The use of condom as a contraceptive was known by majority (84.4 %) of the adolescents. About four percent (3.8 %) knew about implant/injectable as a contraceptive method. About ten percent (10.3 %) of the adolescents had knowledge about the use of IUD for contraceptive purposes. Periodic abstinence as a contraceptive means was mentioned by 11.7 % of the adolescents. Thirty-one percent (31.0 %) mentioned they knew the use of pills as a contraceptive method.

The methods of contraceptives currently used by adolescents in the Chorkor community includes; condoms (47.8 %). In Ghana, adolescents are known to be aware of at least one method of contraception (Awusabo-Asare et al., 2006). The high percentage of adolescents who have knowledge of condom use as a contraceptive method from the study could be compared to the findings from Awusabo-Asare et al., (2006) who also recorded a high proportion of adolescent knowledge of condom use. This high percentage knowledge of condom could be attributed to the low cost of condoms and media advertisements on condom use in Ghana. This is important since condom has a dual function of avoiding STDs/STIs and unwanted pregnancies

Implant/injectable was mentioned by (10.9 %), IUD (8.7 %), natural methods (70.7 %), periodic abstinence (65.2 %) and pills (16.3 %).

The least known contraceptive from the study was implant/injectable whereas findings from Awusabo-Asare et al., (2006) shows that the least known contraceptive among adolescents was Foam/Jelly.

In Nigeria however, most adolescent girls preferred coitus interruptus and rhythm methods to the use of condoms as a result of fear of potential side effects of other contraceptive methods and reduced sensitivity associated with the use of condom (Okpani and Okpani, 2000). Elsewhere in South America, the most preferred method of contraceptive among adolescents is the condom followed by the pill (Martins et al., 2006).

The study explored adolescents' knowledge of the various contraceptives available to the adolescents at Chorkor. Findings revealed that 105 (24.6 %) adolescents knew the existence of condom in Chorkor community. Seventy-nine (18.5 %) knew of the pill method of contraceptive available in Chorkor and 2 (0.5 %) adolescents said implant injectable is available in Chorkor.

From the study, the male adolescents recorded a prevalence of contraceptive use of 18.4 %. The females had a prevalence of contraceptive use of 24.5 %. The overall prevalence of contraceptive use among the adolescents was 21.6 %. A study conducted in Ashanti region of Ghana recorded a prevalence of 18.0 % in contraceptive usage among female adolescents (Agyemang et al., 2019). However, in a similar study in Ghana by Kareem and Samba, (2016) the prevalence of contraceptive use was 38 %. In another study, the prevalence of contraceptive use by female adolescents was 8.7 % (GDHS, 2014). Another study also recorded a prevalence of contraceptive use as 24.0 % among males and 20.0 % among female adolescents (Karim et al, 2003). This low prevalence of contraceptive use may account for the rampant teenage pregnancies in Chorkor. Again comparing the prevalence of contraceptive use from this study to that of other studies in Ghana, it is clear that after several advertisements and social

marketing activities, a wide gap still exist between knowledge and utilization of contraceptives amidst hazards from STDs.

In this study, willingness to continue with the use of contraceptives among adolescents who are currently using contraceptives was found to be 97.3 % for both males and females. Among the males, the willingness was 38.7 %. For female adolescents, the willingness was 58.7%. This statistics is similar to the findings in another study conducted among female adolescents in a district in Kintampo using the Health and Demographic Surveillance System to explore contraceptive use intentions, preferences and their determinants among female adolescents in rural Ghana which indicated that 54.3% of adolescents' were willing to use contraceptives (Abubakari et al., 2015).

The source of information on reproductive health may play a major role in educating and changing the reproductive life-style of adolescents. From the study, most (62.2 %) of the adolescents acquired information on contraceptive use, from the media. This finding correlates with the consistent radio and television advertisements directed towards curbing the menace of HIV/AIDS through the use of condoms (Awusabo-Asare et al., 2014). The media in Ghana is a powerful tool for most social marketing activities (Hindin et al., 2013; Okereke, 2010). The Ghana government through the Ministry of Health and other agencies are the main propagators of contraceptive information through the use of media in the country.

The utilization rate of contraceptives in most Sub-Saharan Africa countries has been low over the past years (Stephensen et al., 2007). Reproductive health researchers have explored several factors influencing the use of contraceptives in general. This current study also explored the factors that may influence the use of contraceptives among the adolescents. The factors identified as influencing the use of contraceptives among the adolescents includes; age, education and want to avoid STDs were all factors influencing the use of contraceptives among

the adolescents. Okezie et al., (2010) identified socio-demographic factors such as age and education as predictors of contraceptive use. From the current study, education was a significant predictor of contraceptive use. People who are educated may appreciate the significance of having fewer and educated children. Also, education may increase one's access to health services and health information. A study in Nigeria revealed that educational level and age are predictors of contraceptive use (Odimwengu, 1999).

Eisenberg, (2013) identified cost as a major barrier to adolescents' ability to obtain contraceptives. Ochako et al., (2015) also supported the claim that cost of contraceptives is a barrier to the use of contraceptives by adolescents. In another study, Yidana et al., (2015) explained the element of cost as a barrier to the use of contraceptives among adolescents. Agbanyo, (2018) also reported that in the Adaklu District of the Volta Region of Ghana the cost of buying contraceptives remains a barrier to contraceptive use among adolescents. Most adolescents and their sexual partners are dependent on their parents hence the affordability of contraceptives may pose a financial burden on them.

Another barrier to the use of contraceptives among the adolescents is knowledge. Knowledge about contraceptives and their usage among adolescents is very significant as a result of increase in unplanned pregnancies and STDs/STIs among these adolescents (Srikanthan & Reid, 2008). Hindin, et al (2013), mentioned that adolescent's knowledge on various methods of contraceptive and its use is a barrier. In this study, the adolescents had low knowledge about contraceptives and their use. Considering the current knowledge about at least one contraceptive method among females and males in Ghana which is known to be 98% and 99% respectively (Amalba, Mogre, Appiah, & Mumuni, 2014), it could be seen that knowledge about contraceptive use exist but such knowledge is not translated into maximum utilization. This is similar to a study conducted among adolescents in Sikkim in India by Prachi et al.,

(2008) which reported that increase in the level of knowledge does not always translate to utilization as there exist socio-cultural dynamics within various communities.

Also, from this current study, availability of contraceptives was identified as a barrier to utilization among adolescents. Making contraceptives available to adolescents would promote utilization of contraceptives. Egede et al., (2015), suggested that the promotion and the availability of wide range of contraceptive products could help in the control of population growth, the spread of STDs and the rate of abortion among adolescents. Eisenberg, (2013) also emphasized that improving the availability to the most effective contraceptives could promote healthier outcomes for adolescents and a subsequent considerable cost savings to the healthcare system in general. In Ghana, The Millennium Development Goals Acceleration Framework has stated the need to make available various contraceptive methods in health facilities to promote utilization of contraceptives (Apanga & Adam, 2015). According to Morhe et al., (2012) making various contraceptives available to adolescents could reduce the rate of unwanted pregnancies and STDs which are menace to adolescent health. As a result, Amalba et al., (2014) suggested that health care providers should make available various contraceptive methods to communities to enhance utilization.

Another barrier to contraceptive use identified in this study was religious belief. The religious belief system of a particular community may control the behavior of individuals and influence their way of life and even their response to health care utilization (Doctor, Phillips, & Sakeah, 2009). A study conducted in Ghana, Cameroon and Malawi showed the influence of religion on contraceptive use (Doctor, Phillips, & Sakeah, 2009). Studies in northern, central, and western Nigeria, have also reported differences in contraceptive use among women in their reproductive age due to their religious belief systems (Akintunde, Lawal, & Simeon, 2013). Contrary to these findings and that from the current study, a study done in the Upper East of Ghana did not report an association between religion and the use of contraceptives (Achana et

al., 2015). Also, Ngome & Odimegwu (2014) concluded that there is no association between religion and contraceptive use. These differences could be attributed to the dynamics in our social and cultural backgrounds. In some religions the use of contraceptives may not be a problem. Others may have problems with contraceptive use and thereby become a barrier to use.

Other barriers which were not examined in this study include; influence from sexual partners and fear of side effects of contraceptive use. These barriers needs to be looked at in future studies on contraceptive use among adolescents.

Importance of contraceptive use was also examined. From the study, the adolescents indicated that the avoidance of unwanted was the main importance derived from contraceptive use. Most (76.8 %) of the adolescents explained that they do not intend to becoming fathers or mothers as most were students (80.3 %) and petty traders (12.3 %). Several studies have also identified and discussed the significance of contraceptives (Bankole et al., 2007; Opoku and Kwaununu, 2011; Boamah et al., 2014; Apanga & Adam, 2015). For this reason, the Millennium Development Goals Acceleration Framework in Ghana has emphasized the need for the availability of contraceptives to adolescents in Ghana (Apanga & Adam, 2015). Since the Ghanaian population has a lot of adolescents, it is clear that when these adolescents appreciate the significance of contraceptives their health, future and quality of life will be enhanced. Health care providers should be seen playing an advocacy role for the reproductive health of these adolescents by tailoring their services to attract these adolescents.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

Adolescent stage in life is a transition between childhood and adulthood with varying challenges and unique developmental phenomenon. As a result adolescents need to be taken into consideration in the development of reproductive health policies and programs directed towards health promotion, prevention and treatment.

This survey concluded that:

- i. The main importance derived from the use of contraceptives by the adolescents is the avoidance of unwanted or unplanned pregnancies.
- ii. There is a low level of knowledge about contraceptives methods among adolescents in Chorkor.
- iii. There is no significant difference in level of knowledge of contraceptives methods between males and females.
- iv. The overall prevalence of contraceptive use among the adolescents was 21.6 %.
- v. The methods of contraceptives currently in use by adolescents in the Chorkor community includes; condoms, implant/injectable, IUD, natural methods, periodic abstinence and pills. Indicate the main and the least here.
- vi. Willingness to continue using contraceptives among adolescents who were already using contraceptives was found to be 97.3 %.
- vii. The factors influencing the use of contraceptives among the adolescents includes; age, education and the desire to avoid STDs.
- viii. About twenty-five percent (24.6 %) of adolescents in Chorkor know the existence of condom in Chorkor community. About nineteen percent (18.5 %) knew

of the existence of the pill method of contraceptive in Chorkor and about one percent (0.5 %) adolescents said implant injectable is available in Chorkor. ix. Barriers to the use of contraceptive among adolescents were; cost of contraceptives, limited knowledge about contraceptives, religious beliefs.

6.2 Recommendations

Since adolescents constitutes the majority group in the population of Ghana, their health needs are crucial to the development of the country. The following suggestions to improve contraceptive use among adolescents are outlined below:

- i. Varieties of contraceptives tailored for adolescent use must be made available and accessible taking into consideration their specific needs and expectations.
- ii. Adolescents must be supported and directed in choosing appropriate method of contraceptive that meet their needs.
- iii. Continued research into adolescent reproductive health and health needs must be encouraged to improve adolescent quality of life.
- iv. An advocacy for the creation of adolescent friendly centers to attract them and resolve issues relating to their reproductive health needs.
- v. Continuous advocacy on the significance of contraceptives must be made through various social-media platforms. Such educational interventions should have a place for adolescents since adolescents may use more social media platforms.
- vi. Programs directed towards the empowerment of adolescents to be assertive in discussing their reproductive health matters should be encouraged.

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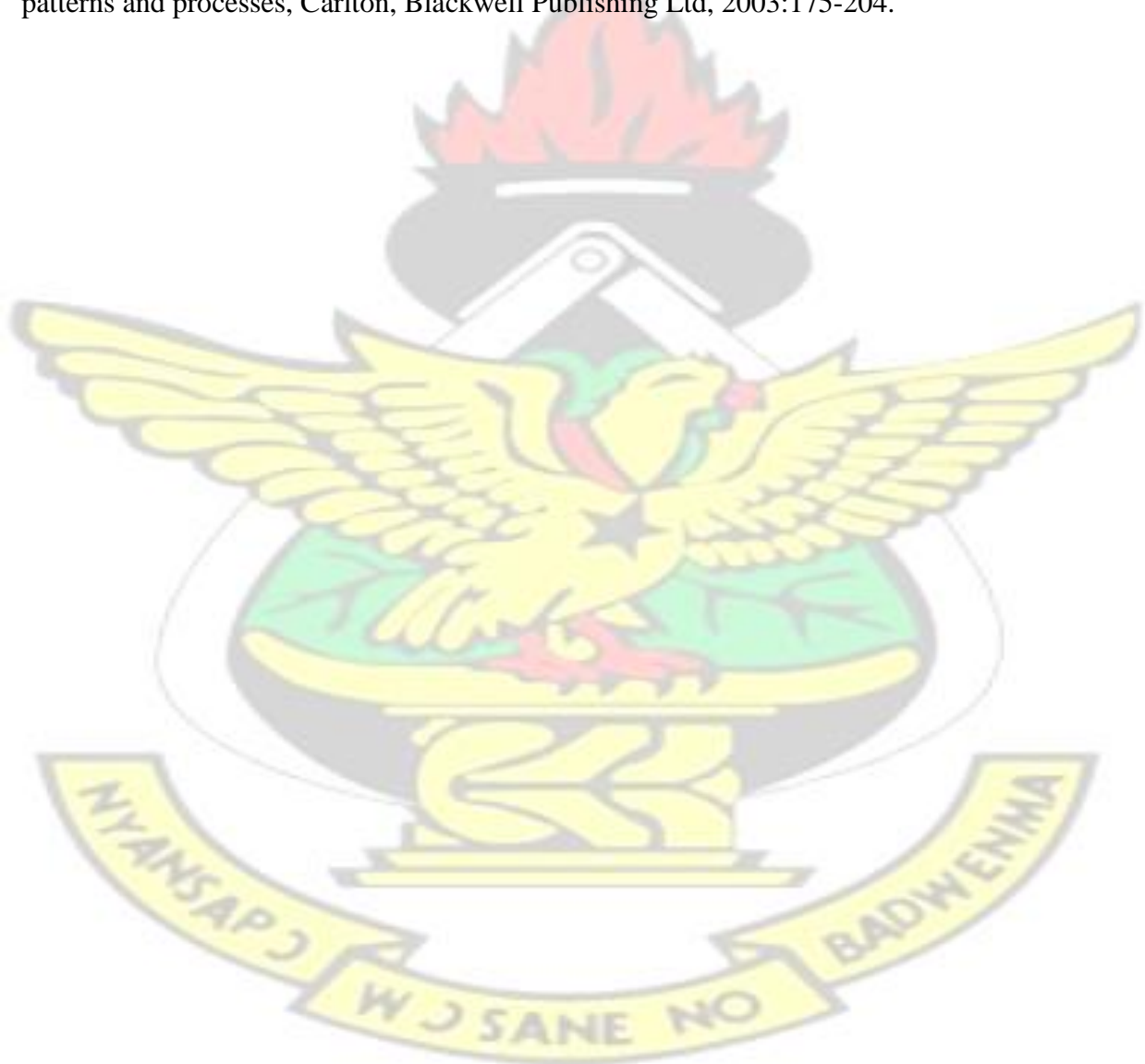
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APPENDICES

APPENDIX I

INFORMATION SHEET

TO BE FILLED IN BY PARTICIPANTS AGED 18-19 YEARS.

Project Title: A community based study of contraceptive use among adolescents in Chorkor, a suburb of Accra.

Introduction: My name is Genevieve Abla Vorsah, a student at Kwame Nkrumah University of Science and Technology, African Institute of Sanitation and Waste Management studying Master of Science Degree in Environment and Public Health. Please find below my contact information:

ENT Department, Korle Bu Teaching Hospital, Accra. Cell 1: 0242942457; Cell 2: 0504549226 e-mail address: genevieve.vorsah-

bonney@lexemporiumgh.com.

Participant's involvement:

I.....have been invited to take part in the study above.

It was explained to me that the study aims at examining the use of contraceptives among adolescents in the Chorkor community, a suburb of Accra.

I have been told that I will be required to provide answers to questions relating to my background information, use and knowledge of contraceptives and factors influencing the use of contraceptives. It will take about 20 minutes to complete these questions.

The information from these questionnaires will be kept in confidence and will enable the investigator study the factors.

Risk or dangers and discomfort:

I have been told there are no risks to providing answers to questions on the sheet of paper.

Benefits:

I will be contributing to knowledge on contraceptive use. There are no financial benefits from this study. However, information gathered from this study will help the investigators determine which factors contribute to the use of contraceptives.

Cost:

There will be no cost to be incurred by participant.

Compensation/payment:

There is no compensation or financial gains in participating in this study.

Confidentiality:

Information obtained from participants would be treated as confidential and kept in a file which will not have participants name on it but a code number assigned to it which will not be disclosed to anyone. Since this study will address a very sensitive subject matter, a high level of confidentiality will be maintained during the interviews to ensure that the adolescents are at ease in giving their responses. Furthermore, the principal investigator together with the trained field workers will ensure the absence of third parties around the area where the interviews will be conducted to ensure participants are at ease in giving their responses.

Voluntary participation/withdrawal:

It is my right to refuse to participate in this study and it will not be offensive should I withdraw from the study. I understand the information given me on the above-mentioned research and voluntarily consent.

Outcome and Feedback:

The outcome of this study will be used as a partial fulfilment for an academic award which would be published subsequently. The data generated from this study will be kept by the principal investigator in a locked cabinet for information security purposes.

Funding information:

This is a self-funded project by the principal investigator.

Who to Contact for Clarification:

I have been told that the proposal will be reviewed and approved by the Kwame Nkrumah University of Science and Technology, Kumasi, Institutional Review Board whose mandate is to protect participants from harm.

If I have any questions, I may ask those now or later. If I wish to ask questions later, I may

Contact:

Genevieve Abla Vorsah,
ENT Department,
Korle Bu Teaching Hospital,
Accra

Cell 1: 0242942457

Cell 2: 0504549226 and

The Chairman of the IRB,

KNUST-IRB office,

Telephone number:

Signature of Participant

Place:.....Date.....

Signature of Researcher..... Place:..... Date.....

APPENDIX II

INFORMATION SHEET

**ASSENT FORM TO BE FILLED IN BY PARENTS OR CARE GIVERS ON
BEHALF OF THEIR CHILDREN AS PARTICIPANTS.**

Project Title: A community based study of contraceptive use among adolescents in Chorkor, a suburb of Accra.

Introduction: My name is Genevieve Abla Vorsah, a student at Kwame Nkrumah University of Science and Technology, African Institute of Sanitation and Waste Management studying Master of Science Degree in Environment and Public Health. Please find below my contact information:

ENT Department, Korle Bu Teaching Hospital, Accra. Cell 1: 0242942457; Cell 2: 0504549226 e-mail address: genevieve.vorsah-bonney@lexemporiumgh.com.

Participant's involvement:

I.....Parent/Guardian ofhave been invited to let my child/ward take part in the above-stated research.

It was explained to me that the study aims at examining the knowledge and use of contraceptives among adolescents in the Chorkor community, a suburb of Accra.

I have been told that my child/ward will be required to provide answers to questions relating to his/her background information, use and knowledge of contraceptives and factors influencing the use of contraceptives. It will take about 20 minutes to complete these questions. The information from these questionnaires will be kept in confidence and will enable the investigator study the factors.

Risk or dangers and discomfort:

I have been told there are no risks to providing answers to questions on the sheet of paper.

Benefits:

The information obtained will contribute to knowledge on contraceptive use. There are no financial benefits from this study. However, information gathered from this study will help the investigators determine which factors contribute to the use of contraceptives.

Cost:

There will be no cost to be incurred by participant.

Compensation/payment:

There is no compensation or financial gains in participating in this study.

Confidentiality:

Information obtained from participants would be treated as confidential and kept in a file which will not have participants name on it but a code number assigned to it which will not be disclosed to anyone. Since this study will address a very sensitive subject matter, a high level of confidentiality will be maintained during the interviews to ensure that the adolescents are at ease in giving their responses. Furthermore, the principal investigator together with the trained field workers will ensure the absence of third parties around the area where the interviews will be conducted to ensure participants are at ease in giving their responses.

Voluntary participation/withdrawal:

It is my child's/ward's right to refuse to participate in this study and it will not be offensive should he/she withdraw from the study. I understand the information given me on the abovementioned research and voluntarily consent.

Outcome and Feedback:

The outcome of this study will be used as a partial fulfilment for an academic award which would be published subsequently. The data generated from this study will be kept by the principal investigator in a locked cabinet for information security purposes.

Funding information:

This is a self-funded project by the principal investigator.

Who to Contact for Clarification:

I have been told that the proposal will be reviewed and approved by the Kwame Nkrumah University of Science and Technology, Kumasi, Institutional Review Board whose mandate is to protect participants from harm.

If I have any questions, I may ask those now or later. If I wish to ask questions later, I may

Contact:

Genevieve Abia Vorsah,
ENT Department,
Korle Bu Teaching Hospital,
Accra

Cell 1: 0242942457

Cell 2: 0504549226 and

The Chairman of the IRB,
KNUST-IRB office,

Telephone number:

Signature of Participant

.....Place:.....Date.....

Signature of Participant's parent/guardian.....Place:.....Date.....

Signature of Researcher..... Place:..... Date.....

APPENDIX III

QUESTIONNAIRE

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
AFRICAN INSTITUTE OF SANITATION AND WASTE MANAGEMENT**

TOPIC:

**A COMMUNITY BASED STUDY OF CONTRACEPTIVE USE AMONG
ADOLESCENTS IN CHORKOR, A SUBURB OF ACCRA**

This set of questions is soliciting your response on the factors influencing contraceptives use among adolescents (age 10 years to 19 years) in the Chorkor community. Your being part of this survey is voluntary. We shall not document your name or any identity of yours. The outcome of this study will only be used for the intended purpose. The interviewer shall explain all the details to you concerning the objectives of this research. *Please tick all that applies for each question.*

ID number:

Interview date:.....

SECTION A: SOCIO-DEMOGRAPHIC DATA

1. What is your age? (in years).
2. Sex: ☐ M ☐ F
3. Highest level of education attained by respondent
☐ None ☐ Primary ☐ JSS ☐ Vocational/Technical ☐ SHS ☐ Tertiary
4. What is your occupation?
☐ Artisan ☐ Civil servant ☐ Fishing ☐ Trading ☐ Unemployed
☐ Other. *If other specify*.....

5. What is your religious affiliation?
☐ Christian ☐ Moslem ☐ Traditionalist
☐ Other (Specify). *If other specify*.....
6. What is your marital status?
☐ Single ☐ Married ☐ Divorced/Separated ☐ Cohabitation ☐ Widow

SECTION B: USE OF CONTRACEPTIVES

7. Have you ever used any contraceptive?
☐ YES ☐ NO
8. How many sexual partners do you have?
☐ 1 ☐ 2 ☐ ≥ 3
9. Have you had unprotected sex before?
☐ YES ☐ NO
10. At what age did you have your first intercourse?.....
11. If yes to Q 9, did you use any contraceptive in your first intercourse?
☐ YES ☐ NO
12. Are you currently using any contraceptive?
☐ YES ☐ NO
13. Which contraceptive are you using currently?
☐ Breastfeeding ☐ Condom ☐ Implant Injectable
☐ Intrauterine device (IUD) ☐ Natural methods ☐ Periodic abstinence
☐ Pills ☐ Tubal ligation ☐ Vasectomy
☐ Others (Specify others).....
14. How long have you been using contraceptives?
☐ 0-1yr. ☐ 1-3 yrs. ☐ 3yrs and above
15. Will you be willingness to use contraceptives to avoid unwanted pregnancies and sexually transmitted diseases?
☐ YES ☐ NO
16. How many time do you have sex?
☐ Only first encounter
☐ At least once/week
☐ At least once/ month
☐ At least once /year
☐ Less than once /year

SECTION C: KNOWLEDGE ON CONTRACEPTIVES

17. Can you please name types of contraceptives you know? (Tick as many as you know)

- ☐ Breastfeeding ☐ Condom ☐ Implant Injectable
☐ Intrauterine device (IUD) ☐ Natural methods ☐ Periodic abstinence
☐ Pills ☐ Tubal ligation ☐ Vasectomy ☐
 Others (Specify others).....

18. What is your source of information on contraceptives? (You can tick as many as apply to you)

- ☐ Media ☐ Relatives ☐ Friends ☐ Health provider

19. What are some of the contraceptives available in the Chorkor community?

- ☐ Condom ☐ Implant Injectable ☐ Cervical cap
☐ Intrauterine device (IUD) ☐ Natural methods ☐ Periodic abstinence
☐ Pills ☐ Tubal ligation ☐ Diaphragm
☐ Combine oral contraceptive (COC),
☐ Others (Specify others).....

20. Have you ever had problems using contraceptives in the past?

- ☐ YES ☐ NO

21. Have you ever changed the method of contraceptive you were using?

- ☐ YES ☐ NO

22. If YES to Q19, why did you change the type of contraceptive you used previously?

- ☐ Base on advice from health provider
☐ Because of side effect of previous method
☐ Pressure from partner
☐ Because of religious reasons
☐ Inconvenience of using the method
☐ Any other (specify).....

SECTION D: FACTORS INFLUENCING THE USE OF CONTRACEPTIVES

23. What influences your use of contraceptives?

- ☐ Desire to avoid pregnancy ☐ Religious Belief systems
☐ Plan to pursue higher education ☐ Desire to have a small family size

☐ Want to avoid STDs
☐ influenced by sex-partner

☐ Want to avoid disgrace
☐ influenced by peers

SECTION E: BARRIERS TO THE USE OF CONTRACEPTIVES

24. Which of the following do you see as a barrier to your use of contraceptives?

- ☐ Cost of contraceptives
☐ Availability of contraceptives
☐ Religious beliefs
☐ Limited knowledge of contraceptive use
☐ Fear of potential side effects of contraceptive use
☐ Others

Please specify other known barriers

SECTION F: IMPORTANCE OF CONTRACEPTIVE USE

Can you mention some of the importance of contraceptive usage for adolescents?

.....
.....
.....
.....
.....

25. Any comments:

.....
.....
.....
.....
.....

THANK YOU