

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
KUMASI**

**COLLEGE OF HEALTH SCIENCES
SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF HEALTH PROMOTION AND EDUCATION**

**PREVALENCE OF, AND FACTORS ASSOCIATED WITH
CONTRACEPTIVE USE AMONG SEXUALLY ACTIVE FEMALE
ADOLESCENTS IN SELECTED SECOND CYCLE INSTITUTIONS IN
KUMASI METROPOLIS, GHANA.**

BY

AGYEI ROCKSON FRIMPONG (BEd. HPERS.)

JUNE, 2016

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OF HEALTH SCIENCES, KNUST IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN PUBLIC
HEALTH IN HEALTH PROMOTION AND EDUCATION**

JUNE, 2016

DECLARATION

I hereby do declare that except for references to other people's work which have been duly acknowledged, this piece of work is my own composition and neither in whole nor in part has this work been presented for the award of a degree in this university or elsewhere.

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ABSTRACT

A steady progress has been made in the last decade on adolescent's contraceptive use among sexually active adolescents in Sub-Saharan Africa; however, an unmet need of contraception still remains. The main objective of the study was to assess the prevalence of, and factors associated with contraceptive use among sexually active female in-school adolescents in Kumasi Metropolis.

Methodology: This is an analytical cross-sectional, conducted among 350 sexually active female adolescents' students in four selected second cycle institutions in Kumasi Metropolis. Multistage sampling technique was used to select the selected schools and final individuals' participants for the study.

Data was collected using a questionnaire with close and open ended questions. Analysis was done using Stata 11.0 (Stata Corporation, Texas, and USA).

Chi-Square was used to compare proportions. Univariable and multivariable regression analyses were done to determine factors associated with contraceptive use to determine crude and adjusted relative risks (RRs) with 95% confidence intervals (CIs) and p-value < 0.05 was considered as statistically significant.

Results: The prevalence of contraceptive use among sexually active female students studied was 213(61%). Altogether, 301(86%) respondents had knowledge on contraception.

The pill was the most common contraceptive method used among the respondents 97(27.7%), and 52(14.9%) respondents used more than one contraceptive method. The main source of information on contraception was from family and friends

216(61.7%).

Most respondents 110 (55.8%) obtained contraceptives from Pharmacies and drug stores. A Sexually active students about (64%) of contraceptive users reported they experienced method-related side effects.

Partner support for contraceptive use ($p = 0.05$) and sources of information on contraception were independent factors associated with contraceptive use among sexually active female students studied in Kumasi Metropolis ($p = < 0.0001$).

Conclusion: Partner support for contraceptive use and sources of information on contraception can influence contraceptive uptake. Therefore, communication on sexual and reproduction health especially on contraceptive use should be freely discussed in schools and at home among sexually active adolescents to improve their contraceptives uptake.

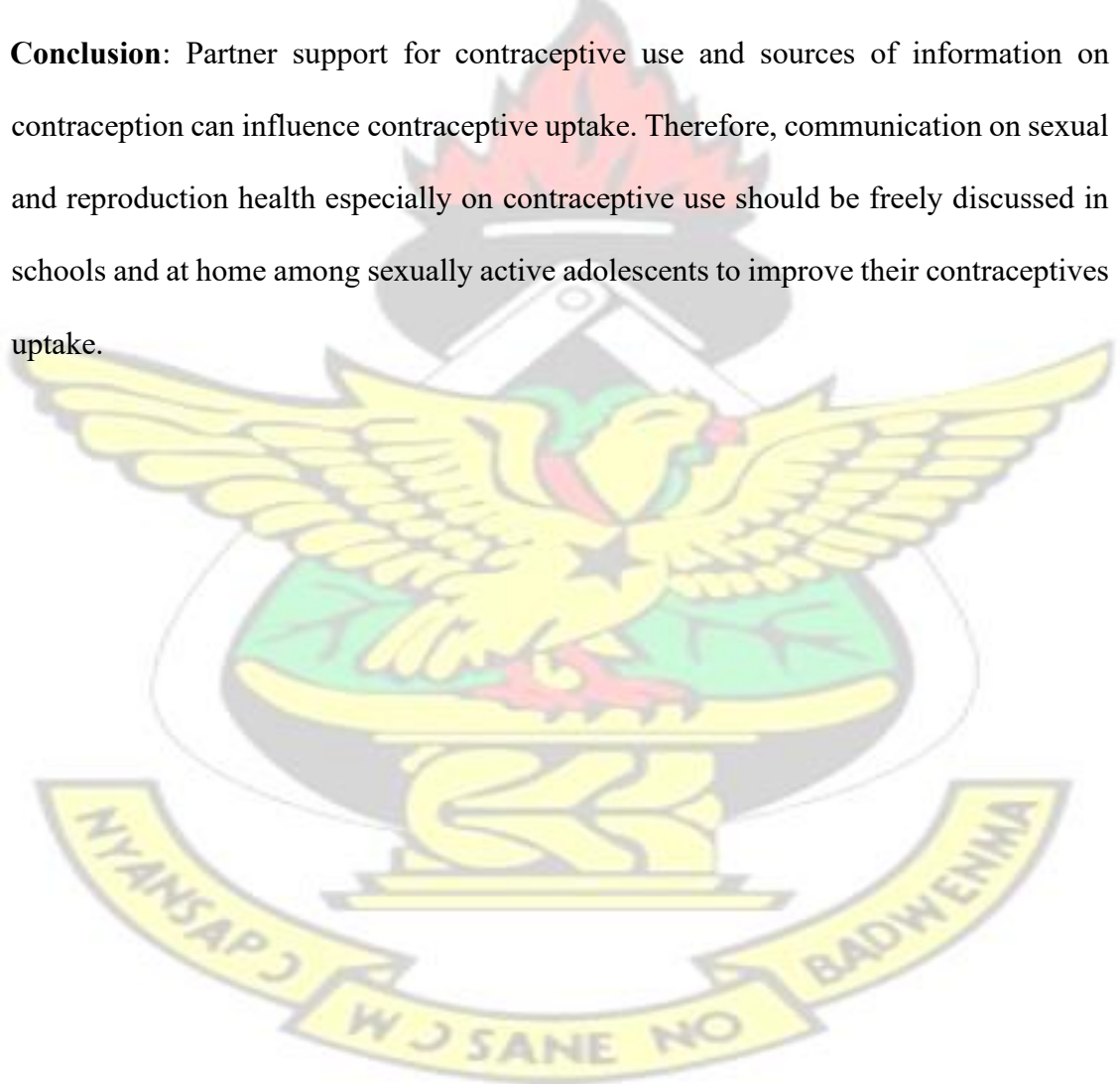


TABLE OF CONTENTS

DECLARATION.....	i
ABSTRACT	ii
TABLE OF CONTENTS	iv
LIST OF TABLES	vii
LIST OF FIGURES	viii
ACKNOWLEDGEMENT	ix
DEDICATION.....	x
ABBREVIATIONS/ACRONYMS	xi
CHAPTER ONE: INTRODUCTION	1
1.1 Background to the study	1
1.2 Statement of the problem	2
1.3 Research questions	3
1.4 The objectives of the study.....	4
1.5 Significance of the study	4
1.7 Operational definitions.	10
CHAPTER TWO: LITERATURE REVIEW	11
2.0 Introduction	11

2.1 Prevalence of adolescents' contraceptive use.	11
2.2 Adolescents contraception knowledge	14
2.3 Types of contraceptive methods used	16
2.4 Factors associated with adolescents' contraceptive use	18
CHAPTER THREE: METHODOLOGY	24
3.0 Introduction	24
3.1 Research design	24
3.2 The study population	24
3.3 Sampling procedure.....	24
3.4 The study setting	25
3.5 Sample size calculation	27
3.6 Data collection procedures	28
3.7 Data analysis	29
3.8 Ethics	29
3.9 Pre-testing.....	30
CHAPTER FOUR: RESULTS	31
4.1 Background characteristics of respondents and prevalence of contraceptive use	31
4.2 Adolescents' knowledge of contraception and sex related problems	32
4.3 Type of contraceptive method used and sources of information on contraception	35

4.4 Univariate analysis of factors associated with contraceptive use among sexually active female students.	36
4.5 Multivariate analysis of factors associated with contraceptive use among sexually active female students.	38
CHAPTER FIVE: DISCUSSION	
40	
5.1 Background characteristics and prevalence of contraceptive use	40
5.2 Adolescents' knowledge of contraception and sex related problems	41
5.3 Type of contraceptive methods used by adolescents	42
5.4 Factors associated with adolescent contraceptive use	43
5.5 Limitations of the study.....	47
CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS	
48	
6.1 Conclusion	
48	
6.2 Recommendations	
48	
6.3 Further research	
49	
REFERENCES	
50	
APPENDICE	
59	

LIST OF TABLES

Table 3.1: Sample size estimation for factors influencing contraceptive use among sexually active female adolescents in Kumasi Metropolis, Ghana.	28
Table 3.2: Estimated number of participants from each selected school.	28
Table 4.1: Background characteristics of respondents and prevalence of contraceptive use.	32
Table 4.2: Adolescents Knowledge of contraception and sex related problems.	34
Table 4.3 Type of contraceptive method used and sources of information on contraception	35
Table 4.4: Univariable analysis of factors associated with contraceptive use among sexually active students.	37
Table 4.5: Final multivariable analysis of factors associated with contraceptive use .	39



LIST OF FIGURES

Figure 1.1: Conceptual Framework Of Prevalence Of, And Factors Associated With Contraceptive Use Among Sexually Active Female Adolescents In Selected Second Cycle Institutions Using Health Belief Model.	6
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DEDICATION.

This research work is dedicated Mrs. Mary Appiah, Mr Adem Edmund and Mr. Amoako Benjamin, for their support and contribution to my education.

ABBREVIATIONS/ACRONYMS

CEDAW:	The Committee on the Elimination of Discrimination against Women.
CHRPE:	Committee on Human Research, Publications and Ethics.
FP:	Family planning.
GES:	Ghana Education Service.
GSS:	Ghana Statistical Service.
IPPF:	International Planned Parenthood Federation.
KMA:	Kumasi Metropolitan Assembly.
MDG:	Millennium Development Goal.
SHEP:	School Health Education Programme.
UNFPA:	United Nations Population Fund.
UNICEF:	United Nations International Children's Emergency Fund.
WHO:	World Health Organization

CHAPTER ONE INTRODUCTION

1.1 Background to the study

Globally, the adolescent population is estimated to be 1.25 billion (World Health Organization, 2008). Female adolescents (15-19) accounts for 14 million births annually and these put them at risks of death or life threatening complications because they are still not well developed (UNICEF, et al.,2003).

The rapid increase in the proportion of sexually active adolescents is exposing large numbers of youths to the risks of unwanted pregnancies and sexually transmitted infections,(STIs), including Human Immune Virus (HIV)/ Acquired Immune Deficiency Syndrome (AIDS) (Mung'ong'o et al., 2010).

Sexually active female adolescents are vulnerable when it comes to unwanted pregnancies and therefore their access to and use of contraceptives should be a global public health concern.

An estimated 215 million women who would prefer to delay or avoid pregnancy continue to lack access to safe and effective contraception (WHO, 2012). A review of 18 Demographic and Health Surveys conducted in Africa between 1993–2001 found that two out of five unmarried females aged 15–24 were sexually active (Cleland and Ali, 2006). Sub-Saharan Africa has the lowest demand for contraceptives and 20% of adolescents aged 15-19 years old use contraceptives (UNFPA, 2003).

In Ghana, sexually active unmarried women aged 15-19 years, have a contraceptive prevalence rate of 45% and an unmet need of contraception of 42 % (Ghana Statistical

Service, 2013). Ghana, like most West African countries has very low contraceptive prevalence and is one of the few nations that reports declines in contraceptive use overtime based on two of the most recent national surveys (Hindin et al., 2014).

The following activities were established as a minimum package for service delivery at the school level through all regions and districts in the School Health Education Programme (SHEP) in Ghana. However, they have only been implemented in parts depending on resources available and these activities are; STIs, HIV/ AIDS, provision of counselling services for adolescent reproductive health issues, substance (drug or alcohol) abuse, victims of violence and sexual abuse (Ghana Education Service, 2010).

Data on the provision of these services for adolescents in second cycle institutions in Ghana is very scanty. Assessing factors associated with contraceptive use among inschool adolescents can improve their contraceptive uptake .

Therefore, there is the need to assess the uptake of contraceptives and factors associated with contraceptive use among sexually active female adolescents' students in second cycle institutions in Kumasi Metropolis, Ghana.

1.2 Statement of the problem

Though some progress is being made to increase contraceptive use, many sexual and reproductive health-care programmes continue to ignore the needs of adolescents and most existing programmes are small and are often initiated by Non- Governmental Organizations (NGOs) on an experimental or trial basis (WHO,2004).

The unmet need for contraception is estimated at 34% in Ghana and in Ashanti region it is 21%, (Patrick et al.,2007). Children born to very young mothers are at the risks of

sickness and death. Teenage mothers are more likely to experience adverse pregnancy outcomes and are more constrained in their ability to pursue educational opportunities than young women who delay childbearing (Ghana Statistical Service,2013).

In Ashanti region, the following are sexually active unmarried adolescents aged 15-19 years who have begun childbearing with no education 23.2%, primary education 19%, Junior High School 14%, and Secondary education 6.2% (Ghana Statistical Service, 2013).

Data on the provision of contraceptive services for adolescents in second cycle institutions in Ghana is very scanty and assessing factors associated with contraceptive use among these adolescents can improve their contraceptive use to reduce teenage pregnancies and STIs.

The objective of this study is to assess the prevalence of, and factors associated with contraceptive use among sexually active female adolescents in selected second cycle institutions in Kumasi Metropolis, Ghana.

1.3 Research questions

The following research questions served as a guide for this study:

1. What was the prevalence of contraceptive use among sexually active female adolescents?
2. What was contraception knowledge among sexually active female adolescents?
3. What type of contraceptive methods do sexually active female adolescents use?

4. Which factors are associated with contraceptive use among sexually active female adolescents?

1.4 The objectives of the study

The main objective

To assess the prevalence of, and factors associated with contraceptive use among sexually active female adolescents in selected second cycle institutions in Kumasi Metropolis, Ghana.

Specific objectives

1. To determine prevalence of contraceptive use among sexually active female adolescents.
2. To determine contraception knowledge among sexually active female adolescents.
3. To identify the type of contraceptive methods used by sexually active female adolescents.
4. To determine factors associated with contraceptive use among sexually active female adolescents in second cycle institutions.

1.5 Significance of the study

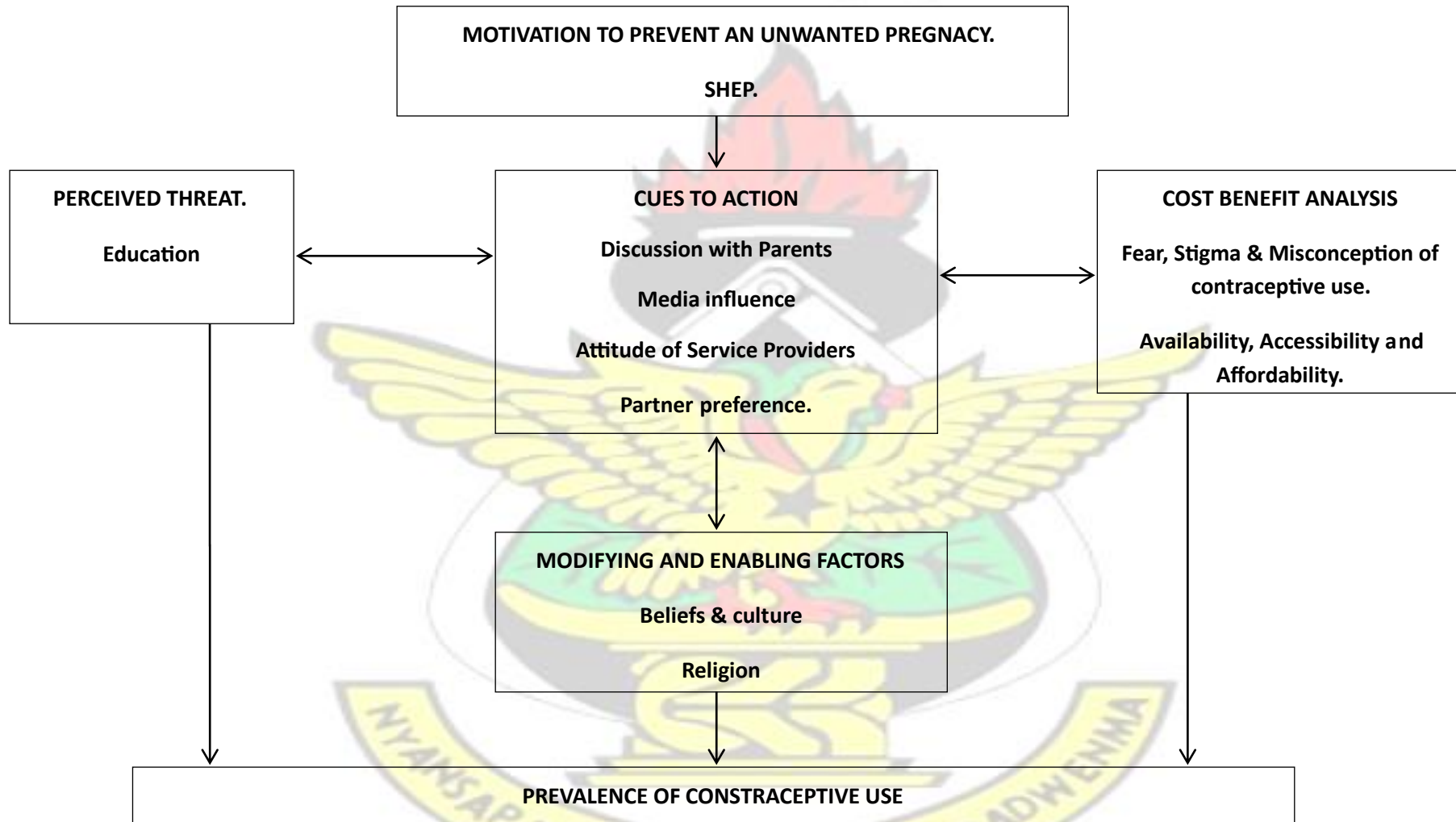
This study would provide data on prevalence of contraceptive use among sexually active female adolescents to help educationist, health workers, parents, NGOs and all other stakeholders that have concern in adolescents' sexual and reproductive health matters to plan health education and promotion interventions programmes targeting sexually active adolescents and other adolescents to achieve their self actualization.

Also, it would provide information on contraception knowledge, types of contraceptive methods use and factors that are associated with contraceptive use among sexually active female adolescents.

Finally, the study would provide information on effects associated with contraceptive use and sex related problems among the sexually active female adolescents to service providers and other stakeholders.



Figure 1.1: Conceptual Framework Of Prevalence Of, And Factors Associated With Contraceptive Use Among Sexually Active Female Adolescents In Selected Second Cycle Institutions Using Health Belief Model.



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The framework was developed by the researcher as a model on factors that can influence contraceptive uptake among sexually active female adolescents relevant to the topic investigated using construct of Health Belief Model by (Hall, 2012).

Millennium Development Goal 5b aims to achieve universal access to reproductive health, including Family planning (FP) (United Nations, 2012).

Motivation to prevent an unwanted pregnancy; an adolescent is motivated to prevent an unwanted pregnancy and her desire to control her fertility to increase in fortune in education and job opportunities in future by using contraception. SHEP was established by Ghana Education Service (GES) in partnership with the Ministries of education, health and other NGOs with the core mandates to improve the health of the students and to educate students on their sexual and reproductive health. Institutions where SHEP has been implemented help students to make informed choice on their sexual life which enable them to prevent unwanted pregnancies, and opportunities to further their education to the highest level.

Perceived threat; an unwanted pregnancy with its attending effects such as abortion, teenage parenthood can compel an adolescent to use contraception. For instance, withdrawal from school because of unwanted pregnancy with parental responsibility without a job can influence contraceptive use. Adolescents' education is a factor that can enable them to make an informed choice on their sexual and reproductive health lifestyle. Factors associated with contraceptive use include females' education and females who are more educated are more likely to use contraceptives compared with illiterate females (Bureau of Statistics and ICF, 2011) .Therefore, educational level can influence contraceptive use among sexually active adolescents.

Cost benefit analysis; there are some factors that can be a barrier to contraceptive use. Stigma and misconception attached to contraceptive use by adolescents such as fear of failure and side effect can influence contraceptive use among sexually active females. Young women face barriers which hinder utilization of FP services and these include fear of side effects, cost and knowledge (Blanc, et al., 2009). Sexually active adolescents who can have social-economic factors, such accessibility, affordability, availability of contraceptives, can influence adolescents to use contraceptives compared to those adolescents who cannot have access to and afford contraceptives in their environment. Therefore, contraceptive use among adolescent are associated with socio-economic status (Bureau of Statistics and ICF, 2011) and lack of access to safe and effective contraception (WHO, 2012).

Cues to action; these are stimuli that can cause a consciousness of perceived unwanted pregnancy and its effects which can influence contraceptive use. Factors such as media, discussion with parents, partner preference, attitudes of health providers can influence adolescents to use among sexually active. The media being radio, television, newspapers, or internet advertisement on contraceptives can play significant role to either motivate or demotivate adolescents to use contraceptives depending on the social marketing strategy on the contraceptive products. It was revealed that 76% young women in Uganda reported to have been exposed to FP message in the Media (radio, television, newspapers (Asiimwe, et al., 2014) and as such glamourizing of contraceptives by the media can influence contraceptives use among sexually active adolescents. Parents that communicate with their wards on sexual and reproductive health especially on contraceptives use can influence its uptake. This is because adolescents whose parents support contraceptive use would be more likely to use

contraception than their counterparts whose parents or guardians do not support the use of contraceptives.

Parents who monitor their children's activities and peer environments, engage their families in regular activities and strong parent-child relationships can help reduce risky sexual behaviour (Manlove et al., 2008). Relationships are built on faith and trust among people. Therefore, a partner preference on contraception is another important factor that can influence contraceptive use among sexually active adolescents. It is believed that women have a limited chance to space their birth, since contraceptive use in marriage is not expected (WHO, et al., 2010). Therefore, if one's partner is not in support of contraception, in order for the relationship to grow, it is more likely that the other partner might not use contraceptives and vice versa. It is therefore, necessary that males should be involved in FP matters in order to increase contraceptive use (Samandari et al., 2010).

Adolescents, who visit health institutions and get better services on their contraception from friendly service providers, would be motivated to use contraceptives than others whose service providers would scorn and reprimand them for being too young to use contraceptives. Healthcare providers must be cautious not to attribute stereotypical religious, social and cultural characteristics to females seeking advice about contraception (Srakanthan and Reid). Therefore, attitude of service providers on contraception can either deter adolescents from using contraception or influence them to use contraceptives. Students spend much time with friends and peers in school than their parents. Friends and peers can play significant role to influence contraceptive use among sexually active adolescents as peer norms was strongly associated with contraceptive use (Guttmatcher Institute, 2010).

Modifying and enabling factors; adolescents' environmental factors and their perception can influence their contraceptive use. For example, factors such as demographic background, religion, beliefs and culture.

Religious beliefs and doctrines can influence contraceptive uptake. This is because, some religions preach against the use of contraceptives and any member who fails to abide this religious doctrine is punished which could lead to losing of a membership status in the church. It is understood that certain religions, that is, Catholics do not support the use of contraceptives (Nicholas et al., 2014).

Culture is the way that people in a particular place live and behave. If an adolescent belongs to a society that does not support contraceptive use, it is likely that, this adolescent may not use contraceptive because of the premium on her cultural beliefs and values, compared to someone who belongs to a society that approves the use of contraceptives. Cultural factors are important in couple's decisions about family size and contraceptive use (Srikanthan and Reid, 2008).

These are some of the factors that in line of thinking can influence prevalence of contraceptive use among sexually active adolescents in Kumasi Metropolis.

1.7 Operational definitions.

Prevalence of contraceptive use: refers to proportion of sexually active female adolescent students who use contraceptives.

Adolescent: is a sexually active female student, who is in her childhood to adulthood.

Contraceptive: it is a device, means or substances that are used to prevent pregnancy or STIs

Sexually active: refers to a female student who has ever had sex.

CHAPTER TWO LITERATURE REVIEW

2.0 Introduction

This chapter reviewed the relevant literature to the study and the purpose was to explore what has been done on adolescents' contraceptive use that would provide background knowledge and serve as basis to assess prevalence of contraceptive use and associated factors among the sexually active adolescents.

Governments' are obliged to take affirmative steps to ensure that adolescent's access in both law and practice, to the full range of contraceptive methods by legal, financial and informational and other barriers, Similarly, governments should refrain from restricting females ability to make free and informed choice on a particular contraceptive method They should also ensure the elimination of all coercive practices relating to contraceptive information and services (UNFPA and Center for Reproductive Right, 2010).

2.1 Prevalence of adolescents' contraceptive use.

Globally, female adolescents (15-19) account for 14 million births annually and these births put them at risk of death or life threatening complications because they are still not well developed to start child bearing (UNICEF et al., 2003).

Tayo et al. (2011), in a study conducted in Nigeria amongst the female secondary school students in Lagos, Nigeria, revealed that 5% of 1155 students with knowledge of contraception are users, 85% of sexually active respondents were non –users. Despite the high rate of sexual activity in the group studied the contraceptive usage rate was low.

Also, another study conducted in South Africa revealed that, the high rate of unintended pregnancies among the youth, remains a public health concern as they indicate young people are still engaging in unprotected sex (Seutlwadi et al., 2012).

Evidence shows that although most pregnancies to adolescent girls in Sub-Saharan Africa are unintended or mistimed, the use of FP methods among this group remains low (Cleland et al., 2009). The South African Department of Health revealed that in 1998 about 35% of young South African women had been pregnant or given birth by the age of 19, since then the number has almost doubled (Panday et al., 2009).

The high unmet need for contraception translates into high numbers of unintended pregnancies, and into high maternal mortality in countries with poor maternal health care systems (Chandra-Mouli and Braet ,2014).

Although, the percentage of women using modern contraception is increasing significantly in most developing countries. An unmet need for safe and effective contraceptive services throughout the world is staggering (Guttmacher Institute, 2007).

Thomas et al. (1996), reported that 13 million teenage living in developing countries have an unmet need for FP and 30% or more married adolescent females wish to delay or limit childbearing but are not currently using contraceptive. Khan et al.(2007) , asserted that 33% of women, including married and never married women, still have an unmet need for contraception.

UNFPA (2003), in their report said the Sub-Saharan Africa has the 30% lowest demand of contraceptive and 20% of adolescents 15-19 year old use contraceptive.

Results from nationally -representative surveys of 12-19 year-olds in Burkina Faso, Ghana, Malawi and Uganda in 2004 show that contraceptive and STIs services are still under-utilized (Biddlecom et al., 2007).

In many countries, the proportion of adolescent women using contraceptives increased substantially over the last two decades; prevalence among adolescents increased faster than among older women (Ann et al., 2009) .

Worldwide, young people between the ages of 15 and 24 are the most threatened group, accounting for more than half of those infected with HIV. At the end of 2003, an estimated 10 million young people aged 15 - 24 were living with HIV, who begin sexual activity are likely to have sex with more partners and with partners who have been at risk with HIV exposure and they are not likely to use condom (Owusu ,2008).

Recent evidence suggests that the use of contraceptives have increased marginally despite the considerable decline in fertility rate (Nketiah-Amponsah et al., 2012).

Guttmacher Institute (2007), opined that, the percentage of women using modern contraception is also on a consistent upward trend, however, according to Ghana Demographic Health Survey Report 2008, about 14% of all Ghanaian female adolescents have started child bearing with 8% using contraceptive (WHO ,2003).

Ghana, like the rest of West Africa Countries, has very low contraceptive prevalence and is one of a few nations that reports declines in contraceptive use over time based on two of the most recent national surveys (Hindin et al., 2014). In 2008, only 28% of sexually active unmarried adolescents were using modern contraceptives (Guttmacher Institute, 2013).

Among sexually active unmarried women, 42% have an unmet need for FP and 45% are currently using contraceptive methods. A total demand for FP among unmarried sexually active women is 87% and only 51% of the potential demand for FP is currently being satisfied (GSS,2013) and this lack of access to contraception leads to early

unwanted pregnancies with tragic consequences in low and middle income countries (Chandra-Mouli et al., 2014).

2.2 Adolescents contraception knowledge

The Committee on the Elimination of Discrimination against Women (CEDAW), (2006) reported that, lack of evidenced –based sexuality education and information hampers adolescents ability to make informed decisions around contraceptive use, which in turn leads to high rates of teenage pregnancy .Tayo et al. (2011), in their study conducted in Lagos, Nigeria amongst the female secondary schools indicated that nearly 45% of respondents obtained knowledge of contraception from their parents.

Knowledge on FP methods and contraceptive use helps an individual to plan the number of children to have, space birth, have a safe sex life as well as responsible sexual behaviour. Engaging in risky sexual behaviours puts a woman at increased risk of acquiring unintended pregnancies and STIs (Opoku,2010). Abstinence from sex is the only 100% effective way to prevent unplanned pregnancies and STDs (Office of Adolescent Health,2014).

For adolescents who are sexually active, using effective contraception (birth control) is necessary to avoid unwanted pregnancies. In addition, using condoms every time they have sexual contact can reduce the risk of STDs (Office of Adolescent Health,2014).

Use of contraceptive methods increases with increasing education. In Ghana 19%of married women with no education are using a method of contraception, as compared with 34% of married women with secondary education or higher (GSS,2014).

South Africa Demographic and Health Survey (SADHS), (2003) indicated that about 97% of sexually active women in South Africa had knowledge of at least one contraceptive method.

Biddlecom et al. (2007), were of different view on the knowledge level of contraceptive use as they reported that significant proportion of adolescents do not know where or how to obtain contraceptives or get STIs treatment also poor knowledge and lack of awareness are underlying factors why adolescents do not use sexual and reproductive health services (Oxfam International, 2007). A substantial proportion of sexually-active adolescents do not know of any source to obtain contraception or get STI treatment, and social-psychological reasons (embarrassment or fear) and financial cost remain common barriers to getting services (Biddlecom et al., 2007).

Women believed strongly that the hospital was the best place to get contraception as blood tests were needed to match women with the appropriate method. Knowledge of how contraceptives methods worked and of basic reproductive biology was low among women (Hindin et al., 2014).

A study conducted by Agyei et al. (2000), revealed that most adolescents claimed to have received adequate information on reproductive health and STDs, including AIDS. However, 20% and 30% of the adolescents in peri-urban and rural areas, respectively, did not know that a girl could get pregnant the first time she has sexual intercourse. The incidence of pregnancy among the unmarried female adolescents was relatively high (37%), and was higher in urban than in rural areas and approximately 47% of those who had ever been pregnant reported that they had had an abortion. The level of contraceptive awareness was high 95.5% among females but many still engaged in unprotected sexual relations (Agyei et al., 2000).

There are some schools of thought who believe that the best way to increase contraceptive use among adolescents is through their peers and then the mass media.

There is evidence that peer education is most effective at improving knowledge on contraception and promoting attitudinal and behaviour change among young people in school settings, .

As the gap between the generations grows, adolescents are increasingly forced to learn about sexual issues from their peers or mass media (Alan Guttmacher Institute, 1998).

2.3 Types of contraceptive methods used

According to, UNFPA and Guttmacher Institute (2009), there are currently 215 million women whose demand for modern methods of contraception is not being met. Adolescent living in Africa, Asia, and Latin America begin their reproductive lives with relatively low reliance on contraception, and when they do not use contraception to delay or limit their childbearing ,they may use less efficient methods than do older women (Thomas et al., 1996).

Evidence shows that although most pregnancies to adolescents' girls in Sub-Saharan Africa are unintended or mistimed, the use of FP methods among this group remains low (Cleland et al., 2006).

Among adolescents wanting to avoid pregnancy, the chance of having an unintended pregnancy is much lower if they and their partner use a modern contraceptive rather than a traditional method or no method at all, and an estimated annual cost of providing contraceptive services to sexually active adolescents aged 15-19 (married and unmarried)who currently use modern methods is \$30 in Sub -Saharan Africa (Guttmacher Institute and IPPF, 2010).

Despite adolescents aim to avoid or delay pregnancy, roughly 215 million in developing countries rely on traditional methods only, which have a high failure rate, or do not use any contraceptive method at all (Singh et al., 2009).

Girls who start having sex at 14 or younger are less likely to have used a method at first sex and take longer to begin using contraception (Lawrence and Jesse, 2013). Many 15-19 years old adolescents are at risk of HIV/STIs and unplanned pregnancies because of insufficient condom and other contraceptives (Doyle et al., 2012).

The commonest barrier methods available in Ghana are the male and female condoms. While the latter has been relatively new, the former has been in use for considerable time (Opoku, 2010).

Dassah et al. (2013), said significant factors associated with current long-acting reversible contraceptive (LARC) use among women were the number of surviving children, however, effective long-term contraceptive methods are underutilized in Ghana as well as a large unmet training in permanent contraceptive method (Patrick et al., 2007).

Data from the 2003 and 2008 Ghana Demographic and Health Surveys shows that there was a significant increase in the current use of any contraceptive method and also there was a shift from modern to traditional contraceptive methods (Abdul-Rahman et al., 2011)

Karim et al. (2003) Ghanaian youth are knowledgeable about condoms, only 20% of sexually females reported consistent condom use with their current or most recent partner.

There has been a decline on the use of IUD in Ghana since 2003 and contraceptive continuation over sustained periods of time is not assured, discontinuation occurs for reasons of failure, method features, such as side effects or convenience of use, or change in need (Ghana Health Service, 2004) and some women stop using contraceptives altogether or immediately switch to another method, whereas others experience a gap in pregnancy protection (Ann et al., 2009).

2.4 Factors associated with adolescents' contraceptive use

Most adolescents do not want to use contraceptives either to prevent or delay unwanted pregnancy or to prevent STIs, including HIV because of stigma associated with contraceptive use. There is often a negative attitude toward young unmarried women who are sexually active (Erulka et al., 2005).

Some of the reasons given for non-use of contraceptive by the adolescents were that they did not think about contraception, and were concerned more about the safety of contraceptives, and partner objection (Agyei et al., 2000). They also have fear of being recognized in the waiting room by adults from community (WHO, 2009; UNFPA, 2011). Blanc et al. (2009) also, reported that greater proportions of adolescents discontinued using a contraceptive method within a year or experienced contraceptive failure.

Bearinger et al. (2007 ; W H O, 2009), in their studies asserted that adolescents often report they do not access sexual and reproductive health services due to fear of being chastised, stigmatized, or punished for sexual involvement. Some factors reported to be generally associated with the non use of contraceptives among adolescents include fear of stigma, shame, and embarrassment as well as healthcare providers' unfavourable

attitudes towards the provision of contraceptive for unmarried adolescents (Lindberg et al., 2006).

Consistent condom use, also, tends to decrease over time within stable partnerships for they are associated with being 'unfaithful' or as 'not trusting' (Biddlecom, et al. 2007), and female adolescents often have fear of being recognized in the waiting room by adults from community (UNFPA, 2011; WHO, 2009).

A survey of 332 women, aged 15-49 years, carried out in the Ga East District of Ghana reported that one-third did not consider modern FP safe and about 20 % indicated their male partner as a barrier. About 65 % of users reported at least one side effect and the fear of side effects was a leading cause of non-use of contraception (Aryeetey et al., 2010).

According to, Agyei-Baffour and Aframa (2012), about 4 in 10 school children had been denied contraceptive services on the ground of being student or wearing school uniform or being too young.

Wood and Jewkes (2006), opined that nurses generally stigmatized adolescent sex and felt very uncomfortable giving contraception to adolescent girls; they often tried to influence the adolescent who came for contraception not to have sex and parental permission are also sought from adolescent before contraceptive are provided.

In most part of the developing world, unmarried adolescents often face societal disapproval and condemnation if they are sexually active (Blum and Mmari 2006; Biddlecom et al., 2007). Also, an adolescent level of knowledge about how to use contraception does not correlate with consistent use and some of the reasons given by adolescents for the delay that their parents will find out, ambivalence, and the

perception that birth control is dangerous (Jonathan and The Committee on Adolescence paediatrics, 2005). Six in 10 adolescents report that the main reason why most adolescent do not use contraceptives is that they are afraid their parents will find out (Albert, 2010).

Some women tended not to have knowledge of contraceptive methods prior to the abortion, while others were informed but failed to use for a variety of reasons ranging from rumours of side effects to personal negative experiences with modern contraceptive methods and a few women also have a belief that contraceptive failure as a reason for their unintended pregnancies that were later aborted.(Biney, 2011). Addition, female adolescents face many barriers in the use of contraceptive methods which include fear, embarrassment, cost, and lack of knowledge (Blanc et al., 2009).

There are schools of thought that have conviction that open communication between adolescents and their parents, particularly about sex and birth control, is linked to increased condom and contraceptive use, and 8% of adolescents say that it would be much easier for adolescents to avoid teen pregnancy if they were able to have more open, honest conversations about this topic with their parents (Kirby and Lepore ,2007). Some of the factors such as communicating with the partner about condom use, education and being employed are significantly associated with contraceptive use among adolescents (Seutlwadi et al.,2012).

The more rapid change in religious affiliation among women than men may have social consequences for the status of women, signalling a trend toward greater autonomy in the family and new aspirations, values, and behaviour as evidenced by the proportion of people adopting contraceptives (Doctor et al., 2009).

Religious and cultural factors have the potential to influence the acceptance and use of contraception by couples from different religious background in very distinct ways. Within religions, different sects may interpret religious teachings on contraception in varying ways, and individual woman and partners may choose to ignore religions teachings (Srikanthan and Reid, 2008).

Sexually experienced adolescents who reported on regular religious practice were less likely to use contraception (Moreau et al., 2013) and certain religions; including Catholicism does not condone the use of contraception (Nicholas et al., 2014).

Also, Sallar (2008), was of the view that religious affiliation has an association with being less sexually active. However, stronger family religiosity does not translate into improved contraceptive use (Manlove et al., 2006).

Increasing HIV prevention information and incorporating culturally relevant and socially acceptable values might lend support to improved adolescent school-based HIV/AIDS prevention programmes (Amoako-Agyeman, 2012). Adanu et al. (2009), also were of the view that, educational status is another predictor of contraceptive use among women found in their study in Accra.

Tawiah (1997), reported that the three most important variables affecting contraceptive use were respondent's approval of FP, discussing of FP with a partner, and respondents' level of education in his study conducted in Ghana. Urban residence and higher education were associated with more induced abortions and higher use of contraceptive method (Geelhoed et al., 2002).

Women who take health decisions jointly with their partners are more likely to use modern contraceptives as compared to women who take health decisions alone (Nketiah-Amponsah et al., 2012).

It is suggested that the use of rational choice models in AIDS prevention programmes may not be adequate to change people's sexual behaviour, especially in societies where the prevailing cultural practices and norms encourage large families and discourage the use of contraceptives of any type (Takyi, 2000). While cultural factors are important in couples decisions about family size and contraception (Srikanthan and Reid, 2008).

In a study conducted in USA among sexually active women under age 18 (47%) indicated that mandatory parental notification would cause them to stop using FP services (Reddy, 2002). Also, parental involvement in prevention programmes may help reduce rates of teenage pregnancy and STDs (Manlove et al., 2008).

Another factor that has an association with contraceptive use was the economic status wealthier adolescents were most likely to use condoms at the last sexual act. Although the link between wealth status and sexual behaviour is not consistent, there is evidence that poor females are vulnerable to infection because of earlier sexual debut and non-use of condom (Madise et al., 2007).

Estimates indicate that one in every 20 adolescents and young people contract STI each year, and young people may not seek help for STI because they do not realize they have an infection or because they are embarrassed to go clinic, or because they may not have access to treatment source of contraceptives (WHO,2004).

Mung'ong'o et al. (2010), in their study conducted among secondary school students in Dar es Salaam, Tanzania, revealed that most students (69.5%) mentioned pharmacies and drug stores as their main sources of obtaining contraceptives.

Lack of access to contraception leads to early unwanted pregnancies with tragic consequences in low and middle income countries (LMIC) (Chandra-Mouli et al., 2014). However, a third of adolescent girls in South Africa become pregnant before the age of 20, despite contraception being free and mostly accessible

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CHAPTER THREE METHODOLOGY

3.0 Introduction

This chapter will give a description of the research design, the study population, sampling procedure, study setting, and sample size calculation, data collection procedures, data analysis, and ethical considerations.

3.1 Research design

This is an analytical cross- sectional study conducted among sexually active female adolescents in selected Senior High Schools in Kumasi Metropolis from June, 2014 to September, 2015.

This study design was appropriate because it was cost effective and feasible within the given time frame.

3.2 The study population

All sexually active female adolescents of at least 16 years and who were in Form 3 in four selected institutions; Kumasi Wesley Girls, Kumasi Girls, Serwaa Nyarko Girls and Osei Kyeretwie Senior High Schools were eligible for inclusion into the study.

All those that were available on the day of data collection and consented to participate in the study were included. However, all males and students in other forms (Forms 1& 2) were excluded in this study.

3.3 Sampling procedure

The Multistage sampling technique was used to select the respondents. First, three female single sex schools were randomly selected out of the five female single second cycle institutions in the Metropolis through balloting and One mixed school was also selected from all the 10 mixed schools in the Kumasi Metropolis through simple random sampling. The number of students to be selected from each school was

determined by the female population in Form 3 of each school using probability proportional to size.

A simple random sampling technique using lottery method to select the final units for the study was done to reduce selection bias. All eligible participants were approached individually by the principal investigator or the research assistant to explain the purpose of the study to them. After giving informed consent, every eligible participant was invited and a total of 350 participants were recruited into this study.

3.4 The study setting

The Kumasi Metropolis is centrally located in the Ashanti Region of Ghana. Its unique central position makes it accessible from all corners of the country. It is the second largest city in the country and the administrative capital of Ashanti. The Metropolis has a population of 2,035,064 comprising 972,258 males and 1,062,806 females (Ghana Statistical Service, 2012) with an annual growth rate of about 5.4%.

The Metropolis is about 254 KM; its physical structure is basically circular with a central located commercial area. There are concentrations of economic activities in the city. The first and most important location is the Central Business District (CBD), which embraces the Kejetia Lorry Park, the Central Market and the Adum Shopping area. The other economic nodes include the Suame Magazine (Vehicle repair centre) the Kaase/Asokwa Industrial Area and the Anloga Wood Market. Most industries which deal in Timber processing, logging, food processing and soap making are concentrated at the Kaase/Asokwa Industrial Area. There are also a number of satellite markets in the metropolis. These include Asafo Market, Bantama Market, Oforikrom Market and Atonsu Markets.

It is estimated that 48%, 46% and 6% of the Metropolis are urban, peri-urban and rural respectively. The metropolitan Assembly is divided into nine sub- metros namely: Asokwa, Bantama, Kwaadaso, Manhyia, Nhyiaso, Oforikrom, Suame, Subin, and Tafo sub- metros.(Kumasi Metropolitan Assembly, 2014).

There are 19 public Senior High Schools in the Metropolis with five of them being single sex female senior high schools; Kumasi Girls', Kumasi Wesley Girls', Serwaa Nyarko Girls', St. Louis Girls' and Yaa Asantewaa Girls'.

In terms of health, the Metropolitan Health Directorate is divided into five (5) Sub Metros; namely, Bantama, Asokwa, Manhyia North, Manhyia South and Subin. The Metro Health Team is led by its Director of Health Services who has the overall responsibility for planning, monitoring and evaluating the performance of the health sector in the metropolis.

The city has a number of health facilities in both the public and private sectors. Notable among them are the Komfo Anokye Teaching Hospital (KATH), which is one of the five teaching hospitals in the country, four (4) quasi health institutions, five (5) health care centres' owned by the Church of Christ and the Seventh-Day Adventist Church.

In addition, there are over two hundred known private health institutions and 13 industrial clinics in the Metropolis. There are also 54 trained Traditional Birth Attendants (TBAs), nine (9) Maternal and Child Health (MCH) points and 119 outreach sites, and these facilities are evenly distributed,(Kumasi Metroploitan Assembly, 2006).

Staff in almost all the public health institutions have been trained to offer sexual and reproductive health services to adolescents. Four of the Sub Metro facilities except Tafo have their adolescent centres refurbished.

Adolescent reproductive health activities take place both at the hospital and outside the hospital. It includes the prevention of teenage pregnancies, STIs and HIV/AIDS, (Kumasi Metropolitan Assembly, 2006)

3.5 Sample size calculation

Sample size calculations were done in Epi Info 7.1.3.3 (Centers for Diseases Control and Prevention, Atlanta, USA) and are shown in Table (3.51). Assuming that the factors influencing contraceptive use among sexually active female adolescents in the Kumasi Metropolis were similar to those observed by Melaku, et al. (2012) in Ethiopia, a sample size of 280 had adequate power of at least 80% to detect those factors within 5% margin of error and at 95% confidence interval.

Assuming 10% refusal, a sample size of 350 gave the researcher more than 80% power to detect prevalence of contraceptive use and associated factors among sexually active female adolescents.

The number of respondents from each school was estimated using probability proportional to size (that is based on the number of female student in Form 3 from each selected school see Table 3.52).

Table 3.1: Sample size estimation for factors influencing contraceptive use among sexually active female adolescents in Kumasi Metropolis, Ghana.

Factors	Percentage (%)	Odds ratio(OR)	Estimated sample size
Discussion with Parents	94.9	3.53	278

Discussion with Peers	84	3.72	248
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Table 3.2: Estimated number of participants from each selected school.

Name of school	Total Form 3 female population	Estimated number
Kumasi Wesley Girls'	875	116
Kumasi Girls' High	838	111
Serwaa Nyarko Girls	592	79
Osei Kyeretwie High	331	44
TOTAL	2,632	350

3.6 Data collection procedures

In each school, a suitable date and time for data collection were selected in conjunction with the school authorities. Data for each school was collected in a single day using a pretested, self-administered questionnaire with both close and open ended questions to allow respondents to freely express their opinions.

Questionnaires were distributed by female research assistants who were trained on the contents of the questionnaire, procedures for data collection and management. Data collection took place in the absence of class teachers, and all efforts were made to ensure maximum comfort and privacy among the participants.

The objectives of the study were explained to respondents before they completed the questionnaire. Respondents were re-assured about the confidentiality and anonymity of their responses. The respondents sat apart from each other, and discussion was not allowed when completing the questionnaires, for reasons of privacy and to avoid shared responses. The research team collected all completed questionnaires.

3.7 Data analysis

Data was entered into Microsoft Access 2007 databases, validated and consistency checks were done and was then cleaned and transferred to Stata 11.0 (Stata Corporation, Texas, USA) for statistical analyses.

Chi-Square was used to compare proportions. Univariable and multivariable regression analyses were done to determine factors associated with contraceptive use with binomial regression with a log-link function to estimate crude and adjusted relative risks (RRs) with 95% confidence intervals (CIs) and P-value < 0.05 was considered as statistically significant.

Factors that were statistically significant were entered into the multivariable model using the forward stepwise approach and factors which remained significant ($p, < 0.05$) were included in the final model for each outcome. Excluded factors were retested in the final model one at a time to confirm the lack of association

3.8 Ethics

Ethical approval was obtained from the Committee on Human Research, Publications and Ethics (CHRPE) of the School of Medical Sciences, Kwame Nkrumah University of Science and Technology, Written permission was obtained from GES, Kumasi Metro Directorate.

Only eligible students who gave written informed consent to participate in the study were recruited into the study. In the case of minors (girls under 18 years of age), informed consent and assent were obtained from the person in loco parentis (form masters) and the student respectively.

3.9 Pre-testing

The questionnaire was pre-tested in Assemblies of God Senior High School in Kumasi Metropolis. The necessary corrections were made to obtain the final questionnaire used to collect the data for the study.



A total of 350 sexually active female students were approached for the study. None declined participation and they were all recruited. The background characteristics and prevalence of contraceptive use among the group studied are shown in Table 4.1.

Most of the respondents (96%) were Christians. Most (88%) of the students were Akans; the remaining 12% being a mixture of ethnic groups such as Ewe, Grussi, Mole-Dagbani, Guan, and Ga –Adangbe. Nearly all (94.9%) of the students were single and less than 3% of the students had given birth before. Altogether, 213 (61%) of the respondents admitted to ever using contraceptives.

Table 4.1: Background characteristics of respondents and prevalence of contraceptive use.

Variable	Sexually active students (n %)
----------	--------------------------------

Age category	
16-17	
18-21	240(68.6)
Religion	110(31.4)
Christian	
Muslim	336(96.0)
Others	9(2.6)
Ethnicity	5(1.4)
Akan	
Others	308(88.0) 42(12.0)
Marital status	
Yes	18(5.1)
No	332(94.9)
Do you have a child?	
Yes	9(2.6)
No	341(97.4)
Ever use of contraceptive	
Yes	213(60.9)
No	137(39.1)

n=number; %=percentage.

4.2 Adolescents' knowledge of contraception and sex related problems

Three hundred and one (86%) students had knowledge of contraception and knew of a method that could be used to prevent pregnancy, (Table 4.2).

On the educational level/stage that students should start using contraception, nearly half 167 (47.7%) of the students thought that contraception should be used at the SHS level, about one quarter 96 (27.4%) suggested the tertiary level and 52 (14.8%) thought contraception can be used at any stage of one's education.

About 40% of the students reported that they knew of STIs, almost 14% had ever heard of abortion and 18% of them mentioned of rape as a sex-related problem that they knew.

About 78% of the students reported that they had never had any sex related problem while about a fifth (21.7%) had ever experienced at least one sex-related problem such as STIs, abortion, pregnancy and rape before.

Of the (213) students, who were contraceptive users, of these, 136 (63.9%) said they experienced some effect associated with contraceptive use such as pain, nausea and vaginal itches and 77 (36.2%) said they never experienced any side effect of contraceptives they used.

About 53% of the students reported that people perceived sexually active adolescents using contraceptives to be bad. They felt that such adolescents were too young to use contraceptives, using of contraception at an early age may affect their future chances of giving birth and also considered such adolescents to be promiscuous.

Among sexually active students interviewed 115(54%) of the students reported that the attitude of service providers towards them was good and 98(46%) of the students were not satisfied of the services rendered to them by their service providers on contraception use.

Table 4.2: Adolescents Knowledge of contraception and sex related problems.

Variable	Sexually active students (n %)
Do you know any method use to prevent pregnancy?	
Yes	301(86.0)
No	49(14.0)
At what stage should one use contraceptive?	
JHS	35(10.0)
SHS	167(47.7)
Tertiary	96(27.4)
any stage	52(14.9)
Sex related problem known to respondents.	
STIs	139(39.7)
Abortion	48(13.7)
Pregnancy	62(17.7)
Rape	26(7.4)
Others	75(21.4)
History of previous sex-related problem.	
Yes	76(21.7)
No	274(78.3)

Have you experienced any side effect of contraceptive use?

Pain	95(45.4)
Vaginal itch	10(4.1)
Nausea	31(9.1)
No effect	77(41.4)

Perception of people on sexually active adolescents contraceptive use

Good	103(29.4)
Bad	186(53.1)
Others	61(17.4)

Attitude of service providers on adolescent contraceptive use

Good	115(54.0)	Bad
98(46.0)		

n=number; % = percentage

4.3 Type of contraceptive method used and sources of information on contraception

The most common method mentioned as ever used was pill 97 (45.5%) followed by 52(24.4%) multiple methods users of contraception, (Table 4.3).

Most students 216 (61.7%) obtained information on contraception from their family & friends, followed by school & PPAG 64 (18.3%), and a few 16 (4.6%) reported of having learnt of contraception from more than one source.

About half 110 (55.8%) of students who had ever used contraceptives obtained their contraceptives from the pharmacy& drug store, 20 (10.2%) from their peers and the least source mentioned was through outreach 3(1.5%).

Table 4.3 Type of contraceptive method used and sources of information on contraception Variable (n %) **sexually active students**

Female sterization/ Injectable	5(2.4)
Pills	97(45.5)
Male condom	32(15.0)
Female condom	19(8.9)
Withdrawal	8(3.8)

Multiple methods	52(24.4)
Sources of information on contraception	
Family /Friends	216(61.7)
School/PPAG	64(18.3)
Media	54(15.4)
More than one source	16(4.6)
Sources of obtaining contraception	
Hospital	19(9.6)
Family planning center	14(7.1)
Outreach	3(1.5)
Pharmacy/Drug store	110(55.8)
Peer	20(10.2)
Others	31(15.8)

n= number; %= percentage.

4.4 Univariate analysis of factors associated with contraceptive use among sexually active female students.

On univariable analysis, (Table 4.4), contraceptive use was associated with parental, peer, and partner supports as well as sources of information on contraception.

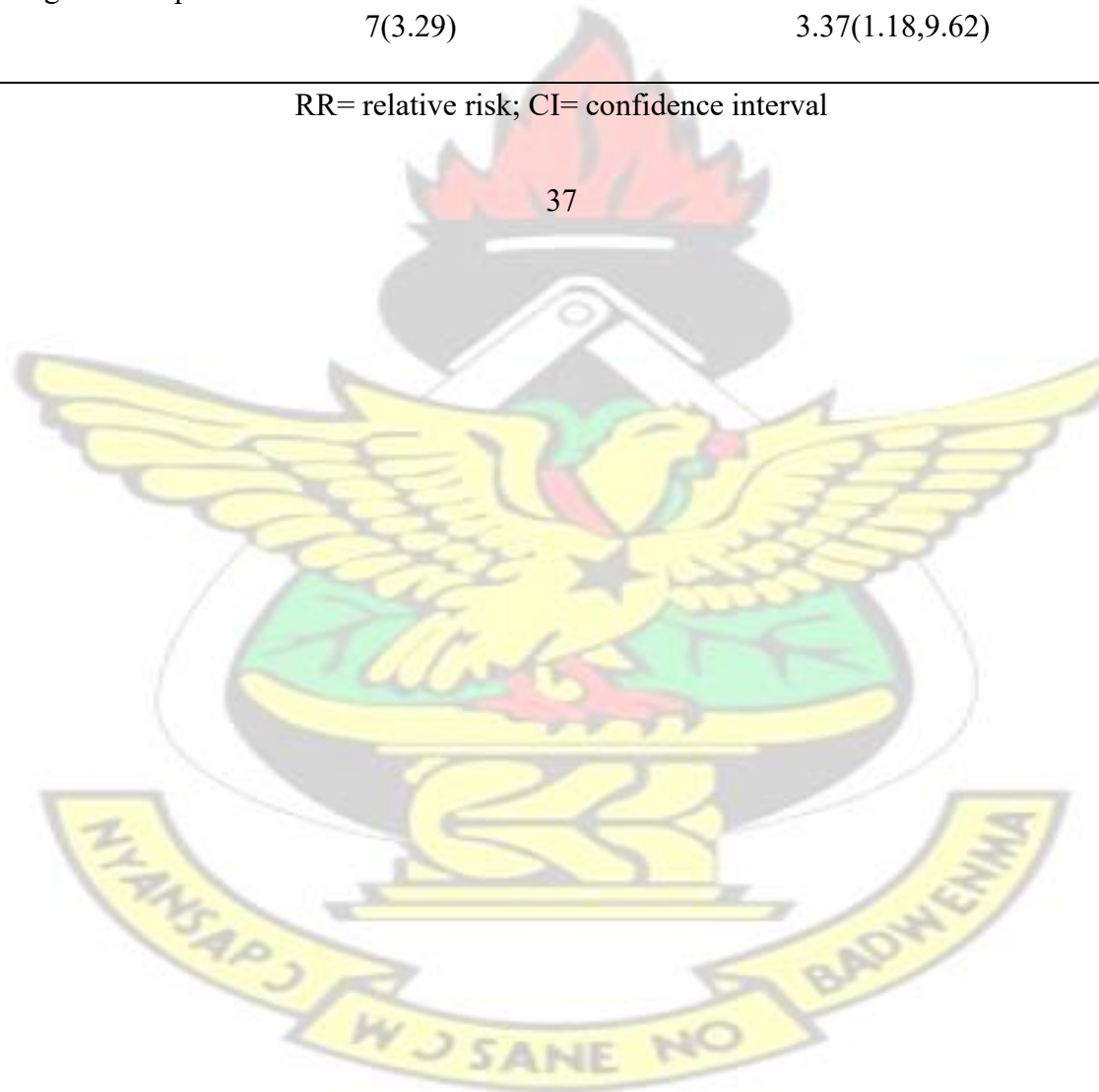
Sexually active students whose parents support the use of contraceptives were more likely to use contraceptives compared to those whose parents do not support the use of contraceptives (Crude RR, 4.46; 95% CI, 0.95, 1.90; $p = 0.007$). Students whose peers supported the use of contraceptives were 1.9 more likely to use contraceptives compared to those whose peers did not support the use of contraceptives (Crude RR, 1.88; 95% CI, 1.18- 2.07; $p = 0.002$), as were students whose partners supported contraceptive use compared to those whose partners did not support contraceptive use (Crude RR, 1.54; 95% CI, 1.25- 2.16; $p < 0.001$).

Table 4.4: Univariable analysis of factors associated with contraceptive use among sexually active students.

Variable	Sexually active students (n %)	Crude RR,95% CI	P-value
Age (Years) 16-17	141(66.20)	1	0.46
18-21	72(33.80)	1.96(0.84,1.48)	
SHEP affecting contraceptive use			0.77
No	125(58.69)	1	
Yes	88(41.31)	1.42(0.7,1.37)	
Parental support for contraceptive use			0.09
No	174(81.69)	1	
Yes	39(18.31)	4.46(0.95,1.90)	
Peer supporting contraceptive use			0.02
No	74(34.74)	1	
Yes	139(65.26)	1.88(1.18,2.07)	
Partner supporting contraceptive use			<0.001
No	84(39.44)	1	
Yes	129(60.56)	1.54(1.25,2.16)	
Religion supporting contraceptive use			0.31
No	169(79.34)	1	
Yes	44(20.66)	3.84(0.85,1.65)	
Sources of information on contraception			< 0.001
Family/Friends supporting contraceptive use			
	176(82.63)	6.29(2.95,13.38)	-
School/ PPAG supporting contraceptive use			

supporting contraceptive use	23(10.79)	2.77(1.19,6.46)	-	- Media
than one source supporting contraceptive use	7(3.29)	1	-	- More
	7(3.29)	3.37(1.18,9.62)	-	

RR= relative risk; CI= confidence interval



4.5 Multivariate analysis of factors associated with contraceptive use among sexually active female students.

On multivariable analysis (Table 4.5), partner support for contraceptive use and sources information on contraception were independent factors associated with contraceptive use among sexually active female adolescents in Kumasi Metropolis.

Sexually active female adolescents whose partners supported contraceptive use were 1.5 times more likely to use contraceptives compared to students whose partners did not support the use of contraceptives. Students who received their information on contraception from family and friends were nearly 6 times more likely to use contraceptives compared to their counterparts who obtained their information from the media (aRR 5.78; 95% CI; 2.70 -12.36). Also students who received their information on contraception from multiple sources were 3 times more likely to use contraceptive compared to those who obtained their information from the media (aRR; 3.01 95% CI; 1.05- 8.66).

Peer support for contraceptive use which was significant in the univariable model was no longer significant in the final multivariable model.

Table 4.5: Final multivariable analysis of factors associated with contraceptive use

Variable	Sexually active (n %)	Adjusted RR,95% CI	P-value
Partner supporting contraceptive use			0.05
No	84(39.44)	1	
Yes	129(60.56)	1.54(0.99,1.74)	
Peer supporting contraceptive use			0.39
No	74(34.74)	1	
Yes	134(65.26)	1.88(0.84,1.56)	
Sources of information on contraception			<0.001
Family / Friends			-
176(82.63)	5.78(2.70,12.36)		
School/PPAG supporting contraceptive use			-
23(10.79)	2.78(1.19,6.48)		

Media supporting contraceptive use	7(3.29)	1	-
More than one source supporting contraceptive use	7(3.29)	3.01(1.05, 8.66)	-

RR= Relative risk; CI= Confidence interval; a= adjusted for all variables in the table

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CHAPTER FIVE

DISCUSSION

This chapter discusses the study findings in the context of published literature on the subject.

5.1 Background characteristics and prevalence of contraceptive use

The study revealed that most of the respondents were Christians and were Akan's. The majority of the students in this study were nulliparous and had not given birth before. Contraceptive prevalence among sexually active female adolescents in Kumasi Metropolis studied was quite high as (61%) of them reported of having ever used contraception.

The 61% contraceptive prevalence rate in this study is much higher compared to the 45% reported in a national survey among sexually active unmarried women (Ghana Statistical Service, 2013). Also, the prevalence of contraceptive use among sexually active students in this study is also higher than reported contraceptive use amongst the female secondary school students in Nigeria and Tanzania (Tayo et al., 2011; Mung'ong'o et al., 2010).

However, other studies among female secondary school students in Ethiopia and Cape Verde reported higher rates of contraceptive use during their last sexual intercourse of 64.6% and 69.3% respectively (Melaku et al., 2012 ; Mendes et al., 2012).

Despite, an increase in contraceptive use among sexually active unmarried women from 28% in 2008 (Guttmacher Institute, 2013) and to 45% in 2013 (Ghana Statistical Service, 2013).

There is the need to intensify education, promote FP and assist adolescents to access sexual and reproductive health services free of charge in the country to meet the 42%

unmet need of contraception among the sexually active unmarried women in Ghana,(Ghana Statistical Service,2013).

5.2 Adolescents' knowledge of contraception and sex related problems

The 86% knowledge of contraception among the students in this study is comparable to a similar study in Ethiopia where 88.7% of female secondary school students had knowledge on contraception (Melaku et al., 2012). However, this was remarkable compared to a study in Nigeria amongst 1500 female secondary school students in Lagos, where 77% claimed knowledge of contraception (Tayo et al., 2011) and another study in Tanzania, among 200 secondary school students of which 75% had knowledge on contraceptive use (Mung'ong et al., 2010).

In spite of high knowledge of contraception (86%) only 61% of the students were using contraceptives, suggesting that awareness or good knowledge do not necessarily translate into contraception use as 77% of respondents with knowledge on contraception 85% were not using contraception (Tayo et al., 2011 ; Mung'ong'o et al., 2010). Similarly, in Tanzania, 97% of in-school girls knew at least one contraceptive method but only 40% used any of the methods, (Kagashe and Goodluck, 2013). An adolescent level of knowledge about how to use contraception may not correlate with consistent use for a number of reasons; their parents may get to know, ambivalence, and the perception that birth control is dangerous (Jonathan and The Committee on Adolescence Paediatrics, 2005; Agyei et al., 2000).

On the educational level/stage that students should start using contraception, nearly half 47.7% of the students thought that contraception should be used at the SHS level and 52 (14.8%) thought contraception can be used at any stage of one's education provided the person is willing to use and does not depend on stage.

The most common problem that students mentioned that they were aware of was (STIs) followed by pregnancies and rape was the least problem mentioned by the students. Less than a quarter of the students 21.7% reported of having contracted sex related problems such as STIs, pregnancy and abortion in their life time.

In agreement with the results of a previous study in the Ga East District, nearly twothirds of the students in this study reported that they experienced method-related side effects such as abdominal pain, headache, vaginal itches and nausea (Aryeetey et al., 2010). However, in one study in Nigeria by Tayo, et al. (2011), only 15% of the students reported of side effect of contraception

5.3 Type of contraceptive methods used by adolescents

The result from this study revealed that more than half, 61% sexually active female students studied were using at least a method of contraception in Kumasi metropolis.

While the pill was the most common contraceptive method used by the students in this study followed by multiple methods, other studies in Ghana, Nigeria and Ethiopia reported that condoms were the commonest methods followed by either the pill or withdrawal methods (Opoku.,2010b ; Agyei et al., 2000 ; Tayo et al., 2011 ; Melaku et al., 2012).

Most sexually active students studied said their preference was on the pill because it was easy to use, safe, felt comfortable to hide and keep from people than other contraceptive methods.

Although Ghanaian youth are knowledgeable about condoms only 20% of females reported of consistent condom use with their partners (Karim et al., 2003). This is in agreement with this study in Kumasi Metropolis as few of the respondents reported of condom used compared to the use of pill.

5.4 Factors associated with adolescent contraceptive use

Although there has been an upward increase on adolescents contraceptive use over the last decade in Ghana and some progress has also been made on knowledge of contraception among sexually active adolescents, however, sexually active females in this country still have an unmet need of contraception of 42% (GSS,2013).

In this study more than half of sexually active students 53.14% reported that the perception of people towards their contraception use was bad for reasons of being too young to use contraceptives because they thought their continue usage of contraceptives will affect their womb and fertility when they want to give birth in future as adults. Similar findings were reported in a study in Kenya and Zimbabwe and there is often negative attitude toward young unmarried women who are sexually active (Erulka et al., 2005).

Only about 30% reported that the people supported and perceived their contraceptive use to be good and they encouraged them to continue using of contraception to prevent them from unwanted pregnancies, STIs to enhance their future prospects in education and employment with good health. Public education that will change misconception of FP and improving access of contraception by sexually active adolescents should be encouraged in the country.

This study revealed that peers supporting contraceptive use among the student studied were very high as more than half of the students about 55% reported that their peers supported contraceptive usage and encouraged them not to discontinue using contraception to prevent them from unwanted pregnancies and STIs.

There is an evidence peer supporting contraceptive use is an important determinant of contraception use. Effective policy aimed at increasing contraception use among adolescents should consider these peer effects (Ali et al., 2011), as in this study, peers

supporting contraceptive use were high among the respondents in Kumasi Metropolis. Therefore, peer and civic education clubs in schools need to include adolescent sexual and reproductive health education programmes and topics especially on contraception to prevent unwanted pregnancies among the students.

This study revealed that, more than two-thirds of parents do not support or approved contraceptive usage by their wards 85.7%. A study conducted in USA among sexually active women under age eighteen 47% of the respondents reported that mandatory parental notification would cause them to stop using family planning services (Reddy, 2002) and Six in 10 adolescents reported that the main reason why most adolescent do not use contraceptives is that they are afraid their parents will find out (Albert, 2010).

Some factors reported to be generally associated with non- use of contraceptives among adolescents include fear of stigma, shame, and embarrassment as well as healthcare providers' unfavourable attitudes towards the provision of contraceptive for unmarried adolescents (Lindberg et al., 2006). It is worth noting that in this study, more than half of the students 54% reported that the attitudes of service providers on their contraception services were good and they were satisfied which was commendable. Healthcare providers must be cautious not to attribute stereotypical religious, social and cultural characteristics to females seeking advice about contraception (Srakanthan and Reid).

In this study 82% of the students reported that their religion do not support contraceptive use which confirms sexually experienced adolescents who reported on regular religious practice were less likely to use contraception (Moreau et al., 2013) and certain religions; including Catholicism does not condone the use of contraception (Nicholas et al., 2014).

However, a stronger family religiosity does not translate into improved contraceptive use (Manlove et al., 2006).

The result of this study revealed that nearly 52% of sexually active students' partners were not in support of contraceptive use. However, partner support for contraceptive use among sexually active female adolescents was significantly associated with contraceptive use.

Sexually active female adolescents whose partners support contraceptive use were 1.5 times more likely to use contraceptives than students whose partners do not support the use of contraceptives.

Meaning communicating with partners especially males' partners can influence contraceptive prevalence rate. To promote contraceptive use, FP programmes should focus on increasing men's approval of contraception, improving partner communication around FP and bolstering women's confidence in their reproductive decision making (Samandari et al., 2010).

In agreement with the result of a study by Mung'ongo'o et al. (2010; Tayo et al., 2011), Pharmacy and drug store were the main sources of contraceptives in this current study.

Students who received their sources of information on contraception were from family and friends. Tayo et al. (2011) revealed that 45% of female students obtained their knowledge on contraception from their parents, 9.9% through sisters and 10% from friends which is in line with this study in Kumasi Metropolis. However, another study reported that, the major sources of information on contraception was from the School and Media (Kagashe and Goodluck, 2013).

This study has revealed that more than half 57% of sexually active students studied, reported that, they will not continue using contraception in future for reasons such as

fear of side effects, parental disapproval, being unfaithful partners and perception of people to be promiscuous.

Orji and Onwudiegwu (2002), reported that fears resulting from misconceptions about contraception contribute to non- usage.

Among sexually active students 64.3% reported that they have experienced some side effects as a result of contraceptive used such as pain, vaginal itch and nausea. Blanc et al. (2009) reported that young women face many barriers which hinder utilization of FP services including fear of side effects and failure.

Therefore, there is the need for service providers on FP to improve the quality of contraceptives which will reduce side effects resulting from contraceptives used to encourage sexually active adolescents to patronize in their products to prevent future unwanted pregnancies and STIs through the use of condoms.

5.5 Limitations of the study

The study was conducted in four selected second cycle institutions in Kumasi metropolis and therefore the findings are not generalizable to all sexually active female adolescents in Ghana especially those who are not in school.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

The contraception knowledge among the sexually active female students in this study was high, 86%. Sixty one percent of them had ever used contraception.

The main source of information on contraception was family and friends. The pill was the commonest contraceptive method used. Most students obtained their contraceptives from pharmacy and drug stores. About (64%) of contraceptive users reported they experienced method-related side effects.

Partner support for contraceptive use and sources of information on contraception were independent factors associated with contraceptive use among sexually active females studied. Therefore, communication on contraceptive use should be freely discuss to allow adolescents acquire more knowledge on family planning methods.

6.2 Recommendations

The following recommendations have been suggested based on the findings from the study.

Ghana Education Service

Sex education should be carried out in second cycle institutions as stipulated in SHEP to educate students on their sexual and reproductive health needs and encourage contraceptive use among sexually active adolescents to prevent unwanted pregnancies and its consequences such as unsafe abortions. SHEP should be proactive and play a leading role in the programme.

Parents

Parents should freely discuss sexual and reproductive health matters including contraceptive use with their children to prevent them from suffering sex-related problems such as STIs, unwanted pregnancies and induced abortion.

Pharmacists and chemical sellers

Since pharmacies and drug stores were the main sources of contraceptives, the Pharmaceutical Society of Ghana should educate its members to provide contraceptives in an adolescent-friendly manner and also educate clients on the types and side effects of the various contraceptive methods.

Kumasi Metropolitan Assembly and Metropolitan Health Directorate

Both the Kumasi Metropolitan Assembly and Metropolitan Health Directorate should collaborate with the Ghana Education Service to promote sexual and reproductive health education in second cycle institutions in the Metropolis. As much as possible, they should encourage the use of contraceptives among sexually active adolescents.

6.3 Further research

Further research is required to determine factors that will increase contraceptive use among sexually active adolescents in schools.

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APPENDICE



KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
COLLEGE OF HEALTH SCIENCES



SCHOOL OF MEDICAL SCIENCES / KOMFO ANOKYE TEACHING HOSPITAL
COMMITTEE ON HUMAN RESEARCH, PUBLICATION AND ETHICS

Our Ref: CHRPE/AP/372/14

21st November, 2014.

Mr. Rockson Agyei Frimpong
Post Office Box KS 8481
TAFO-KUMASI.

Dear Sir,

LETTER OF APPROVAL

Protocol Title: "Assessing Prevalence of Contraceptive Use and Associated Factors among Sexually Active Female Adolescents in Selected Second Cycle Institutions in Kumasi Metropolis, Ghana."

Proposed Site: Kumasi Wesley Girls, Kumasi Girls, Serwaa Nyarko Girls and Osei Kyeretwie SHS, all in Kumasi Metropolis.

Sponsor: Principal Investigator.

Your submission to the Committee on Human Research, Publications and Ethics on the above named protocol refers.

The Committee reviewed the following documents:

- A notification letter of 23rd June, 2014 from the Kumasi Metro Education Office (study site) indicating approval for the conduct of the study in the Schools.
- A Completed CHRPE Application Form.
- Participant Information Leaflet and Consent Form.
- Research Proposal.

The Committee has considered the ethical merit of your submission and approved the protocol. The approval is for a fixed period of one year, renewable annually thereafter. The Committee may however, suspend or withdraw ethical approval at anytime if your study is found to contravene the approved protocol.

Data gathered for the study should be used for the approved purposes only. Permission should be sought from the Committee if any amendment to the protocol or use, other than submitted, is made of your research data.

The Committee should be notified of the actual start date of the project and would expect a report on your study, annually or at the close of the project, whichever one comes first. It should also be informed of any publication arising from the study.

Thank you Sir, for your application.

Yours faithfully,

Osomfuor Prof. Sir J. W. Acheampong MD, FWACP
Chairman

GHANA EDUCATION SERVICE

Tel: 24571 / 33621/28308

In case of reply the number
and date of this letter
should be quoted

Our Ref No : GES/ASH/KM/EP119. /13

Your Ref.



REPUBLIC OF GHANA

Metro Education Office
P.O. Box 1918
Kumasi – Ashanti
Ghana

23rd June, 2014

TO WHOM IT MAY CONCERN

LETTER OF INTRODUCTION

NAME : ROCKSON AGYEI FRIMPONG
REGD NO. : 2023/03
STAFF ID : 308499
STATION : WESLEY GIRLS' SENIOR HIGH SCHOOL

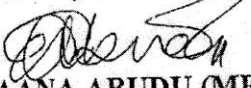
Mr. Rockson Agyei Frimpong is pursuing a Post graduate Education Programme on MPH Health Education and Promotion and is undertaking a research on the topic Assessing Prevalence of contraceptive use and Associated Factors Among Sexually Active Female Adolescents in Selected Second Cycle Institutions in Kumasi Metropolis, Ghana.

Mr. Rockson Agyei Frimpong is a student at KNUST (The Department of community Health, School of Medical Sciences) and has introductory letter to that effect.

Please, accept and offer him necessary assistance for the conduct of the research. The Senior High Schools from which the research would be conducted are:

1. Kumasi Wesley Girls' High School
2. Kumasi Girls' Senior High School
3. Osei Kyeretwie Senior High School
4. Serwaa Nyarko Senior High Schools

Thanks for your co-operation.


E. NAANA ABUDU (MRS)
METRO DIRECTOR OF EDUCATION
KUMASI

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
COLLEGE OF HEALTH SCIENCES/SCHOOL OF MEDICAL SCIENCES,
DEPARTMENT OF COMMUNITY HEALTH.

**TITLE: PREVALENCE OF, CONTRACEPTIVE USE AND ASSOCIATED
FACTORS AMONG SEXUALLY ACTIVE FEMALE ADOLESCENTS IN
SELECTED SECOND CYCLE INSTITUTIONS IN KUMASI METROPOLIS,
GHANA.**

This research work is being undertaken by the researcher from Kwame Nkrumah University of Science and Technology, Department of community health. The purpose of this work is to determine the prevalence of contraceptive use among sexually active females.

You are kindly requested to read and respond to these items.

It is for academic purpose and all information that would be provided will be restricted and confidentiality is assured.

Questionnaire number:

Date of interview:

BACKGROUND INFORMATION.

1. Form.....
2. Age..... AGE
3. Gender: Male 1 () 2. Female () SEX
4. Religion:
Christian ().....1
Moslem ().....2
Traditionalist ().....3
Other specify.....4 RELG
5. Which ethnic group do you belong?
Akan.....1
Ewe.....2

Grussi.....3

Mole-Dagbani.....4

Guan.....5

Ga-Dangbe.....6

Other specify.....7

ETHNIC

6. Are you married?

1. Yes () 2. No ()

MARRYSTAT

7. Do you have a child or children?

1. Yes () 2. No ().

CHN

SECTION (B). PREVALENCE OF CONTRACEPTIVE USE.

8. At what stage should adolescent use contraceptives?

1. JHS () 2. SHS () 3. Tertiary ().
STGCTU

9. Have you had sex before?

1. Yes () 2. No () SEXLIFE

10. If Yes to 8, did you use contraceptives?

1. Yes () 2. No ().

11. If No, to question 8, why?.....

12. How often do you use contraceptive?

1. Regular () 2. Not regular () 3. Sometimes () 4. Not at all () CUTIME

13. Have you had sex related problem(s) before? For example, Pregnancy, Rape,
Termination of pregnancy, Vaginal itches etc.

1. Yes () 2. No (). SEXPLBM.

14. Which sex problems are you aware of?

1. STIs () 2. Abortion () 3. Pregnancy () 4. Rape () 5 other specify.....

SECTION C: KNOWLEDGE ON CONTRACEPTIVE USE.

15. Have you heard of any method that a woman can use to prevent or avoid pregnancy and other sex related problem(s)?
1. Yes () 2. No (). CUMETHD
16. If yes, which methods of contraception have you heard about?
1. Female sterilization () 2. Pills () 3. Male Condom () 4. IUD ()
5. Injectables (inject plan) () 6. Depo-Provera () 7. Implants (Norplant) ()
8. Female Condom () 9. Rhythm method () 10. Withdrawal ()
11. Others specify..... CUFAVOURTE
17. Which of the following contraceptive method have you used before?
1. Female sterilization () 2. Pills () 3. Male Condom () 4. IUD ()
5. Injectables (inject plan) () 6. Depo-Provera () 7. Implants (Norplant) ()
8. Female Condom () 9. Rhythm method () 10. Withdrawal ()
11. Others specify..... CUMETHDUSED.
18. Which contraception method do you prefer most?.....CUPREF
19. Which sources did you learn about contraceptives?
1. Parents () 2. School () 3. Friends () 4. Plan Parenthood Association Ghana ()
5. T.V () 6. Radio () 7. Others specify..... CUSORC
20. What is your reason(s) for chosen answer 18?.....
21. A part from yourself which other people know that you have been using contraceptives?
1. Parent(s) () 2. Peer (s) () 3. School authorities () 4. Religious body ()
5. Others specify.....
22. What was the reaction of the person who saw you using contraceptive?
1. Good () 2. Bad () PERTION.
23. How did you feel, when someone saw you using contraceptive?

1. Good () 2. Bad () 3. Others specify..... STIGMA.

24. Can say what the person said?

.....
.....

25. Were you motivated to use contraceptive again when someone saw you?

1. Yes () 2. No ()

26. Does your school health education programme educate you on the use of contraceptives?

1. Yes () 2. No (). SCHVIEW

27. If yes, how often does the School health education programme educate you on the use of contraceptive?

1. Regular () 2. Not regular () 3. Not at all () 4. Others specify.....

28. Does your parent(s)/ Guardian support the use of contraceptives?

1. Yes () 2. No () 3. Not aware () PARNTSVW.

29. Does your religion support the use of contraceptives?

1. Yes () 2. No () 3. Not aware () RELGVIEW

30. Does your peer(s) motivate you to use contraceptives?

1. Yes () 2. No (). 3. Not aware () PERVIEW

31. Does your partner(s) support the use of contraceptives?

1. Yes () 2. No (). 3. Not aware (). PATNRVW

32. Have you been encouraged by someone to use contraceptive(s) in the future?

1. Yes () 2. No (). CUFUTUR

33. If **yes** to question 31, please kindly mention and why.....?

34. If **no** to question 31, please kindly mention and why.....?

35. Where do you obtain your contraceptive from?

1. Drug store/ Pharmacy () 2. Clinic () 3. Hospital () 4. Outreach () 5. Other
specify.....

36. What was the attitude of the person who sold the contraceptive to you?

1. Good () 2. Bad ().

37. Can you describe the provider's attitude or reaction towards you?

.....
.....

SECTION (D).

TYPE OF CONTRACEPTIVE METHOD.

38. Which of the following contraceptive method have you used before?

- 1 .Female sterilization () 2.Pills () 3. Male Condom () 4. IUD ()
5. Injectables (inject plan) () 6. Depo-Provera () 7. Implants (Norplant) ()
8. Female Condom () 9. Rhythm method () 10. Withdrawal ()
11. Others specify.....

39. Did you experience any side effect(s) of the method used in 37?

1. Headache () 2. Abdominal pain () 3.Nausea () 4. Vaginal itch ()
5. Other specify..... CUEFFECT

40. Will you continue to use the method chosen in 37?

- Yes () No ()

41. If yes, to question 37 give your reason(s) REASONCME.

37. If no, to question 35 what are your reason(s)

SECTION (E)

ASSOCIATED FACTORS ON THE USE OF CONTRACEPTIVES.

42. When was the last time that you used contraceptive..... 43.

The last time that you obtained the current method, how much did you pay in
total.....CCOST.

44. Where did you obtain the method you are currently using?

1. Hospital () 2. Family planning centre () 3. Outreach () 4. Pharmacy /Drug store
() 6. Peer () 7. Parents/Guardian () 8. Other specify....CUMETDSRCE

45. Who accompanied you?

- 1 .Partner () 2.Relative () 3. Nobody () 4.Other specify..... 46.

If your not currently using contraceptive, what is your reason for that?

.....
.....

47. For how long have you been using the current method without stopping?.....

48. When you obtained the current method, were you told about the side effects or problems you might have with the method by the provider?

1. Yes () 2. No ().

49. Were you told what to do by the health worker or family planning official, if you experience any side effect?

1. Yes () 2. No ()

50. Were you told about other methods by the provider about the other methods of family planning? 1. Yes () 2. No ()

51. Have you visited the hospital in the last three months for any reason apart from family planning? 1. Yes () 2. No ()

52. If yes, to question 51, why?.....

Thank you