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FACTORS INFLUENCING ACCESSIBILITY AND UTILIZATION OF REPRODUCTIVE HEALTH SERVICES AMONG ADOLESCENT IN GA EAST MUNICIPALITY

BY

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DECLARATION

I, Cherry Amissah, hereby declare that this dissertation is a result of my independent work. References to other works have been duly acknowledged. I further declare that this thesis has not been submitted for any other award degree in this institution and other universities elsewhere.

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CHERRY AMISSAH DATE

(STUDENT)

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DR. EMMANUEL ASAMPONG DATE

(ACADEMIC SUPERVISOR**)**

DEDICATION

I dedicate this piece of work to my husband, Mr. Kwabena Addi-Kissiedu, my lovely sons (Papa Kwabena, Nana Addi and Owura Kwesi), my beloved mother, Rose Kissi, to my Father, Mr. James Amissah and my brothers, Mr. Wilson Aseidu and Mr. Ernest Asiedu.

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ABSTRACT

Background: Addressing the reproductive health needs of adolescents remains one of the greatest public health issues confronting Ghana. Education and advocacy on reproductive health by parents, teachers and healthcare providers have the potential to improve their knowledge, ensure easy accessibility and utilization of services to prevent complication. The study aimed at investigating factors influencing accessibility and utilization of reproductive health services among adolescents in Ga East Municipality.

Methods: A cross-sectional study design and a quantitative approach using simple random sampling method to sample 242 respondents. A structured questionnaire were administered to assess knowledge and factors influencing accessibility and utilization of reproductive health services among adolescents. Analysis of quantitative data collected were done with the aid of STATA version 15. Statistical significance was set at p-values ≤ 0.05 with a confidence interval of 95%.

Results: A total of 242 students participated in the study with 54% being females. The mean age of the respondents was 15 with 61% being SHS students. The odds of adolescents who agreed that poor attitude of health workers could influence accessibility are 87% less likely to access SRH services. AOR= 0.13 (95% CI: - 0.25-0.76). The odds of utilizing RHS is 5.95 times higher among 14-16 years. AOR=5.95 (95% CI:-1.26-13.10) as compared to 10-13 age group. Additionally, there is 9.87 times likelihood of utilization among 17-19 as compared to 12-13 years. AOR = 9.87(2.38-15.06). Female adolescents where 1.55 times more likely to utilize SRHS as compared to males AOR = 1.55 (95% CI: -1.28- 2.06). Knowledge on AFHC, advertisement and poster were also significant in service utilization.

Conclusion: to increase utilization of reproductive health services, there is a need to educate adolescent on the perceived benefits of the various services available, train more peer

educators, promote school health programme and demystify certain socio-cultural practices affecting service accessibility through effective communication.

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LIST OF ABBREVIATIONS

AFHS	-	Adolescent Friendly Health Services
ANC	-	Antenatal Care
ART	-	Anti- Retroviral Therapy
DHS	-	Demographic Health and Survey
ERC	-	Ethical Review Committee
GES	-	Ghana Education Service
GHS	-	Ghana Health service
GSS	-	Ghana Statistical Service
HBM	-	Health Belief Model
HIV	-	Human Immunodeficiency Virus
PHC	-	Population and Housing census
MOH	-	Ministry of Health
SRHS	-	Sexual and Reproductive Health Services
SHEP	-	School Health Education Programme
STI	-	Sexually Transmitted infections
VCT	-	Voluntary Counselling Test
WHO	-	World Health Organization

DEFINITION OF TERMS

Adolescent: A boy or girl between the ages of 10-19 years.

Accessibility: The ability to visit or enter a health facility without necessarily using any the services available or rendered within the last two years

Utilization: Making practical use of sexual and reproductive health service in prevention, early detection and treatment of diseases within the last two years.

Sexual and Reproductive Health: Situation, disease or disorder that can affect reproductive health of an individual.

CHAPTER ONE

INTRODUCTION

1.0 Background of the Study

Adolescent growth and developmental life are of great importance because; the stage from childhood to adolescent is of a swift stage and a period where numerous challenges such as their health can be affected. Adolescence is defined by the World Health Organization (WHO, 2014) as the period of human growth and development which occurs between childhood and adulthood from ages 10 to 19 years. Globally, about 25% of the world's population are young, aged 10 to 24 years (PRB, 2018).World Health Organization defines health as the complete physical, mental and social wellbeing of an individual and not merely in the absence of disease. This definition places emphasis on the facts that preventive care is important in addressing not only diseases but other health care needs of the adolescent such as the sexual and reproductive health services (SRHS).These services may include family planning, counselling services, education on transition from childhood to puberty, safe abortion services and post abortion care. Pretesting and post-test pregnancy counselling among teenager is equally important to help prevent unsafe abortions leading to death.

Denno and Chandra (2016) conducted a study, which indicated that 25.9% of females and 31.4% of males do not use condoms for protection during their first-time sexual intercourse leading to sexually transmitted infections including HIV. The focus on preventive medicine through health education, counselling of adolescents in seeking medical screening for early detection and treatment of diseases must be encouraged to avoid future complications (Gedam, 2017). GSS/GHS/ICF Macro (2018) voluntary counselling test on HIV to know your status helps in early detection and commencement of treatment as well as encouraging people without the virus to practice safe sex.

The use of healthcare services varies according to factors such as age, gender, cultural, and economic factors as well as perceptions of severity, susceptibility, benefits and barriers of knowledge and awareness, attitude of care providers, waiting time and costs and seeking care (Petrovic & Blank, 2015). In a cultural setting, an adolescent with a reproductive tract infection is likely to be treated with herbal preparation. The cost of sanitary pad may be expensive to a poor family; girls improvise with used and dirty clothing as sanitary pad, which expose them to infection (Dasgupta & Sarkar, 2009). Many adolescents have the fear of been stigmatized by society for been pregnant at a tender age, so chances of committing an unsafe abortion is high leading to premature death. School dropout among adolescents girls are mainly as a result of pregnancy, a bright future distorted due to due to lack of knowledge on the use of contraceptives or family planning. The importance of SRHS to an adolescent is unfortunately also unknown to many parents, leading to poor support in accessing such services (Sara Sunny, 2017).

A stage where if issues concerning their health status is not addressed or well managed, can affect adult life. Every country with prospects of having a healthy citizen must invest in effective prevention and treatment strategies and policies that nurture the developmental needs such as sexual and reproductive health of adolescent (Denno et al., 2015). For instance, GDHS (2014) invested in a research to identify the various challenges faced by adolescents and measures to addressing their challenges. The Ministry of Health (MOH) in collaboration with Ghana Health Service (GHS) has implemented programmes such as Youth Friendly Centres and School Health Education Programme where health care providers are resourced, equipped with knowledge and skills to help address these challenges faced by adolescents. In spite of these initiatives, there are still barriers in the accessibility and utilization of these services.

1.1 Problem Statement

Globally, sexually and reproductive health challenges remains a burden with an adolescent birth rate of 44 per 1000 girls between the ages of 15-19 years. Annually, an estimated 333 million cases of STI infections recorded with the second highest rate among adolescents between the ages of 15-19 years. Interestingly 71% of people living with HIV are also within the age bracket of 15-19 years (WHO, 2017). According to CDC (2018) an estimated 8,164 of youth between 13-24years were living with HIV in the United States, unfortunately, 51% were living with undiagnosed HIV status. Maternal deaths among adolescent age 15-19 years are the second highest in Africa. About 11% of all childbirths worldwide traced to young women below age 20 and this account for 23% of the world's burden of disease related to pregnancy and childbirth (WHO, 2018).

Adolescent aged between 10-19 years constitute 29.3% of Ghana's population and the estimated prevalence of HIV has increased from 1.2% to 1.8%. It's estimated that about 11% of girls and 9% of boys are sexually active. Teenage pregnancies remain high among adolescent in Ghana with a prevalence of 12% of girls aged 15-19 either pregnant or already teenage mothers (GSS/GHS/ICF Macro, 2018). Nyarko (2015) indicate that the contraceptive prevalence rate among adolescent girls is 18%.

According to the Ghana Statistical Service, Population and Housing Census (PHC, 2010), the population of adolescents (10-19) in the Ga East municipality is 12,686 representing 8.5% of the total population. The Abokobi Health Centre as at 2018 had only recorded 632 adolescent registrants at the youth friendly centre, patronage by adolescents to this centre is very low. The statistics shows that there is an increase of teenage pregnancy cases in the municipality. A total of 287 (45%) reported with teenage pregnancy, 38(13%) unsafe abortion cases and only 16 adolescents attended STI/HIV counselling section, this clearly indicates that utilization of AFHS is very low and the need to investigate the cause.

Access to adolescent friendly centres are limited in the district. The municipality only has two adolescent friendly health centres in the public clinics including Abokobi health centre and Taifa Polyclinic and two in private including Ghana Atomic Hospital and Ashongman community hospital which looking at the total number of adolescents in the municipality it is still too small to serve them. In schools where sexual and reproductive health education provided by peer educators who are sometimes challenged with some level of knowledge on how to conduct it. Students are mostly not willing to access these peer educators who might equally be their friends since they do not have confidence in them.

1.2 Research Questions

1. What is the level of knowledge of adolescents on reproductive health?
2. What factors influence adolescents' perception of accessibility to a reproductive health service?
3. What factors influence adolescent utilization of reproductive health service?

1.3 General Objective

To investigate factors influencing accessibility and utilization of reproductive health services among adolescents.

1.3.1 Specific Objectives

1 To examine the level of knowledge among adolescent on reproductive health.

2 To assess the factors that influence the perceived accessibility of reproductive health services among adolescents.

3 To investigate the factors that influence an adolescent utilizing a reproductive health service.

1.4 Justification of the Study

Adolescence is a stage in once life where their attitude and behaviour, are affected tremendously by social, physical and psychological changes. A stage they easily adapt to risky health behaviours such as unprotected sexual activity, multiple sexual partners, unsafe abortions, poor menstrual hygiene, poor eating habits leading to reproductive health challenges and a long-term devastating effect on society. However, adolescents perceive they are healthy and so there is still a significant gap of adolescents' ignorance on seeking preventive care to avoid complications especially in treatable conditions (Roos & Vatopoulou, 2019).

The government of Ghana and many other organizations have invested in reproductive health services but patronage is still low and the effect on productivity in various schools have been curtailed (Amofah & Kurabachew, 2016). This study will help formulate policies, on the service delivery, strategies and measures to encourage adolescent patronize reproductive health service. Therefore, emphasis on the need for preventive care through awareness creation and sensitization of adolescent on the importance of utilizing the reproductive health centres for counselling, screening and treatment services to help reduce complications and mortality. This study will help enlightened health care providers on the needs of adolescent, the creation of a conducive environment without having to feel shy and have confidence in their privacy. This study will help strengthened SHEP, through resource provision in disseminating information to improve knowledge among adolescents. Study findings will help contribute to literature, identify the gaps and encourage researchers on the need for more work to be done on adolescent reproductive health.

1.5 Conceptual Framework

Perceptions of adolescents on accessing SRHS may vary based on a number of factors. The conceptual framework below describes some of the factors that may influence adolescents' perceptions on accessing and utilizing reproductive health service. Health Belief Model (HBM) is extensively used, to measure the health beliefs and behaviours about health care attitudes.

The HBM was developed in 1950 by US based public health social scientists called Hochbacm Rosenstock. HBM cognitive model that endeavours to pinpoint patterns of healthy behaviour. The notion of the health belief model (HBM) is that individual beliefs about and perceptions of a disease contribute greatly to their health behaviours (Louis, 2016). Furthermore, prevention and early recognition of diseases are considered as critical factors in controlling the disease and increasing the survival rate of patients. First, perceived severity refers to an individual‘s feelings of the seriousness of contracting a disease and living with the disease untreated. Tola, Karimi, & Yekaninejad, (2017), indicate that a person‘s feeling of severity varies with an evaluation of medical consequences and social effect.

Therefore, the importance of educating adolescent how susceptible they are in acquiring STIs by having sex without protection, getting pregnancy even at first coitus without contraceptives or family planning methods. Informing them on the severity of performing unsafe abortion, which can lead to maternal deaths, HIV not having a cure so it is appropriate to use condoms during sexual intercourse. The health belief model predicts that individuals who recognize that they are vulnerable to a particular health problem will participate in behaviours to reduce their risk of developing the health problem. The barriers of the model address factors that prevent accessibility and utilization of reproductive health service such as inadequate information, lack of adequate healthcare providers, proximity to the facility, cultural beliefs and practices, poor attitude of healthcare workers and lack of knowledge.

Perceived benefits are associated with health-promoting behaviour to decrease risk of disease through early detection, early commencement of treatment and prevention of disability and complication. The purpose of acquiring knowledge on any health issue is to help make an informed choice in accessing quality care and even if there is adequate knowledge on a health condition as threatening and believes that a particular intervention will effectively reduce the threat, the individual is likely to seek health care. The use of media to sensitize the people in accessing and utilizing of healthcare services. The health belief model predicts that individuals who recognize that they are vulnerable to a particular health problem, this motivate the individual, participate in behaviours to reduce their risk of developing the health problem.

The conceptual framework was adapted from Anderson and Newman (1995) which described three functions and characteristics. First, the predisposing factors explains the socio-demographic characteristics that influence the output and outcome variables. In this study, this concept helps to explain the socio-demographic factors that contributes both accessibility and utilization of SRH.

Second, the framework discusses the enabling factors that equally influence the outcome variables. The enabling factors that were discussed in this study were cost of the services provided, the availability of the SRH services and the attitude of health professionals and the location of the facility.

The third characteristics describes the need factors which are mostly linked to the perceived and evaluated factors that contribute to the outcome variable such as the perceived severity, susceptibility, benefits and barriers associated with accessing and utilizing RHS as an adolescents.

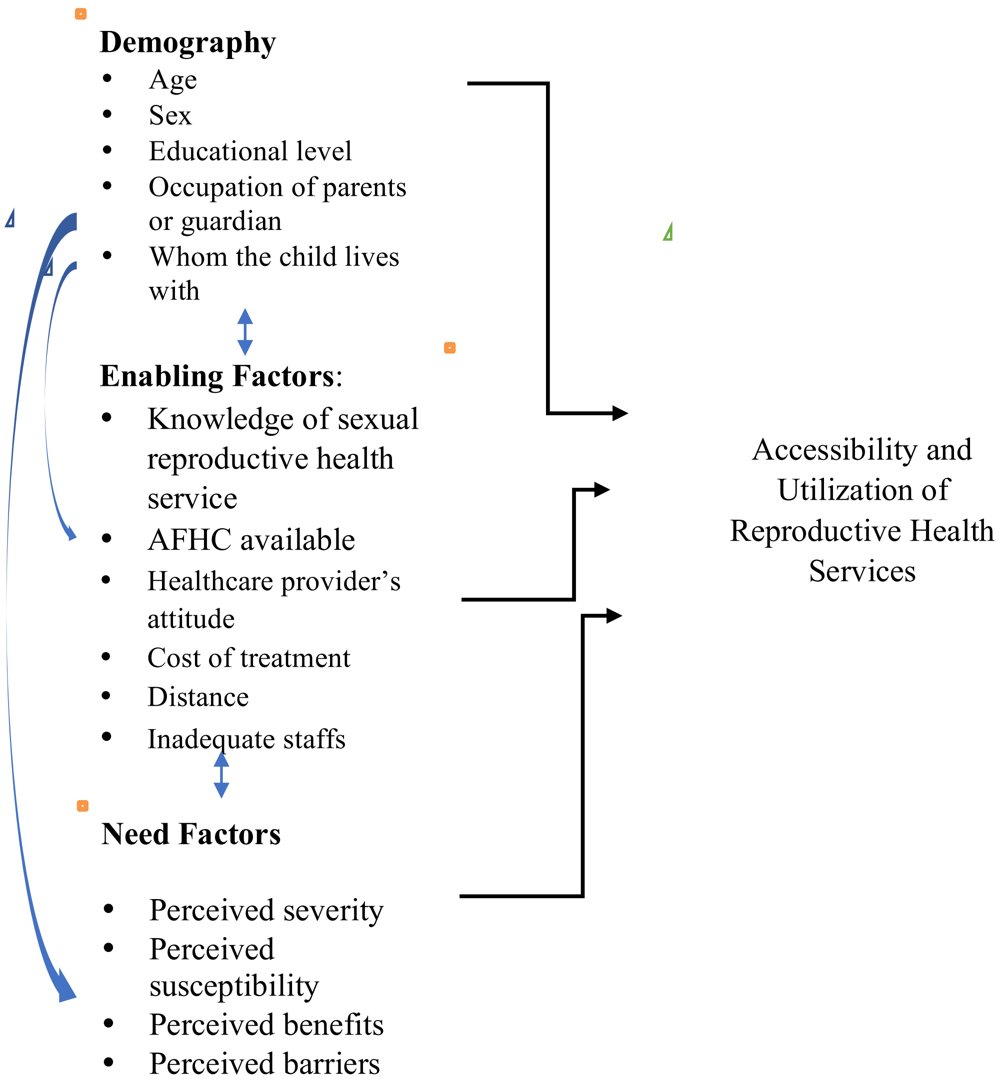

Figure 1: Conceptual Framework of the Study
Source: Andersen and Newman Framework of Health Services Utilization

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter provides insights into other research works that have been done in reference to adolescent's reproductive health services, the knowledge on RHS and how it affects the accessibility and utilization of reproductive health service.

2.1 Sexual and Reproductive Health of Adolescents

Adolescence is characterized by significant physiological, emotional, physical and social changes, attain puberty where there is menstruation, breast enlargement, deeper voice and testicles enlargement in males, anxiety, mood swings among others (Brittany & Waterman, 2019). Certain factors such as peers and family influence determine the decision adolescents make concerning their health. Many adolescents have a sense of belongingness by discussing their problems and share experiences with their friends or peers but whether or not the advice given may improve, their health is of concern. Furthermore, they need to be given adequate knowledge to make the right decision concerning their reproductive life (Polat, Karakas°, Gu¨rcangu¨rcan, & Erdog˘, 2012) to affirm the population statement that "*A healthy mind, lives in a healthy body*". If the mind and body are sound, it increases school effectiveness and productivity. By getting the right health services, screenings, and treatments, an individual is noted as taking steps that helps his/her chances for living a longer and healthier life.

2.2 Knowledge of adolescence on reproductive health

Reproductive health (RH) is a critical phase of broad-spectrum health where the challenges they face at this stage needs to be addressed through health education, health promotion, preventive care and treatment to avoid future complications. It is estimated that a number of adolescents are exposed to a variety of reproductive health challenges, including early pregnancy and childbearing; genital mutilation; unsafe abortion; STIs, HIV; and sexual assault and rape largely due to absence of knowledge on adolescents health (Morris & Rushwan, 2015). These problems are preventable, and the educational setting is a key element of deterrence. Educational system is able to influence a mainstream of adolescents, while also having an influence at the community level. Furthermore, schools may often be the only place where adolescents can obtain accurate information on reproductive health, help clear any misconceptions and encourage the formation of strong sexual assertiveness and practices (WHO, 2008). The knowledge for each health challenge differs in context. The level of knowledge for various adolescent health challenges are discussed in the following sub-themes.

2.2.1 Teenage Pregnancy and Motherhood

Annually, it is projected that, about 21 million girls aged 15 to 19 years and 2 million girls aged under 15 years respectively become pregnant in developing countries (WHO, 2018). Adolescent pregnancy is generally a global problem but most maternal deaths occur in developing countries and especially among adolescents aged between 15-19 years (Nove, Matthews, Neal & Camacho, 2014). A study in India on adolescent pregnancy showed that, out of 1000 pregnant women, 62% involved teenage girls and interestingly the country was ranked with the highest recorded adolescent pregnancy rate. Early pregnancy and childbearing is considerably one of the health risks of adolescent girls (Ghose & John, 2017). Neonate born to young mothers stand a greater chance of premature deaths as compared to adult mothers. A study was conducted in Egypt compare sick babies born to teenage mothers (cases) and adult mothers (control group), this revealed that there was a significant increase of 9% of sick babies born to teenage mothers as compared to a 2.7% in adults' mothers. Again 37.22% had preterm babies as compared to control group with 11.99%. This was attributed to lack of knowledge, a teenage mother had in attending antenatal services, how to care for herself during pregnancy, and the importance of using contraceptive to even prevent pregnancy in the first place (Mohamed & Mohamed El-Taher, 2012).

2.2.2 Unsafe Abortions

Sexual initiations usually begin during the adolescent stage. The consequence of engaging in sexual activity may affect the sexual and reproductive health of the adolescent. One of such complication is unsafe abortion. A study in India on unsafe abortion indicated that education was significantly associated with abortion as a total of 48% of illiterates where more likely to opt for unsafe abortion as compare to females with higher educational status (Yokoe, Rome, Choudhury, Rani, Zahir & Nair, 2019). Due to inadequate primary preventive methods such sexuality education and information, many adolescent resorts to unsafe abortion methods including drinking of herbal preparation and the use of quack Doctors leading to maternal deaths among adolescent. A study conducted in Ghana, on unsafe abortion policy and services with participants including nurses, medical doctors and patients, revealed a majority (81%) lacked knowledge on abortion laws as being legal in Ghana and this lead to many engaging in illegal means to terminate pregnancy leading to maternal deaths (Alorse, Addo, Aboagye, Menlah et al., 2019).

2.2.3 Sexually Transmitted Infections

The 2008 Demographic Health Survey in Ghana reported that out of the 1,025 adolescent girls interviewed about 97.6% had heard of HIV/AIDS but 27.7% lack comprehensive knowledge on prevention of HIV using condoms as means of protection during sexual intercourse. Another study in Europe involving adolescents in school between the ages of 13-20 years indicated that above 90% of them had heard of HIV, how one can be infected with the virus and the use of condoms as a preventive method. Interestingly there was very low knowledge on human papilloma virus as a cause of cervical cancer (Samkange-Zeeb, Spallek & Zeeb, 2011).

Knowledge on sexual transmitted infections was sought from students in second cycle school concerning diseases that could be transmitted through sexual intercourse, a majority (87%) knew about HIV, while 5% syphilis and less than 1% mentioned candidiasis, genital warts, chlamydia and herpes (Adeokun, Ricketts, Ajuwon & Ladipo, 2009).

2.2.4 Menstrual Hygiene

Many adolescent girls go through psychological distress during their menstrual period. There are issues with how to care for once self, leading to poor menstrual hygiene. There are various health effects of unhygienic practices during menstruation and one of such problems is developing a Reproductive Tract Infections (RTI) and later can lead to infertility. Early treatment is key, as a delay could lead to various complications (Juyal, Kandpal & Semwal, 2014). A research conducted in India to assess the knowledge level of adolescent girls on menstrual cycle showed that in both urban (72%) and rural (68.9%) had knowledge on the physiological process. This study further revealed that high cost of sanitary pads and lack of knowledge has led to a contributing factor of poor personal hygiene (Kamath, Ghosh & Lena, 2013).

A study by (Gaferi, Al-Harbi, Yakout & Soliman, 2018) revealed that a greater number (66.3%) of respondents had imprecise knowledge, while (33.7%) of them had a perfect knowledge on reproductive health and its services. Interestingly about 95.4% were knowledgeable on menstruation hygiene practice, as proper disposal of use pads, regularly changing wet pads and maintaining personal hygiene, while only 4.6% had had very little knowledge and practiced poor menstrual hygiene. Vanusha and Parvathavarthini (2018) conducted a study on the effects of health education on RHS and their assertiveness in accessing health care in terms of their reproductive health needs an adolescent. It was observed that an increase in knowledge as the respondent knew the usual time interval between two menstrual cycles is 21 days to 35 days and outstanding knowledge concerning menstruation, puberty changes which is characterized by stomach pain, low back pain, headache, malaise as the most collective grievances.

2.2.5. Sources of knowledge on RHS

Lack of information from the appropriate sources leads adolescent in making decisions about their reproductive health needs which can be detrimental to their health in the future. A study West Gonja located in the Northern Region of Ghana on the sources of knowledge on reproductive health, majority acknowledged that peers, parents, teachers, radio and television but depended more on friends for information as they perceived that health workers where unfriendly and had difficulty relating well with them leading to low patronage of RHS (Kyilleh, Tabong & Konlaan, 2018). A study conducted in rural Bangladesh, on reproductive health awareness among girls showed that, 85% of the adolescents in this study had insight into reproductive health through one or more kind of media either television, posters, advertisements, social youth club. Based on their level of awareness there was significant association between knowledge acquired on social media and utilization level of health care services (Uddin & Choudhury, 2008).

The use of mass media communication yield in unrelenting change in strategy, social norms and behaviours. The involvement of media communication is essential in overpowering obstacles to access services. Creating awareness in the community is very important in demystifying the norms and beliefs parents and our community members have concerning reproductive health and rather encourages people to access healthcare services (Abajobir & Seme, 2014). Fayoyin (2016) in his study on engaging social media for health communication in Africa emphasized the importance of innovation of using mobile app to send sensitive information to pregnant women and had maternal records on the app to help healthcare workers to quick access to information and provide care.

2.3 Factors Influencing Perceived Accessibility of Sexual and Reproductive Health Services by Adolescents.

2.3.1 Client and Community Factors

Barriers to accessibility may be affected by certain perceived thoughts. Certain cultural beliefs and practices where discussion on sex and its related topics are prohibited until marriage. This leads to poor self-confidence, shyness and feel discriminated. There are unable to enter AFHC with the fear of been seen by others and stigmatized especially in the community or religious leaders. They eventually discuss these matters preferably their friends (Kennedy, Bulu, Harris, Humhrey & Grey, 2013). Due to the sensitive nature of reproductive health services, many adolescents do not even want their parents to be in the known of their utilization of such services. A study conducted in Myanmar showed that clients have their own perceive geographical barrier whereby they prefer an AFHC, which is not close to the community where no familiar person can see them and bridge that gap of privacy and confidentiality (Phyu, Zaw, Liabsuetrakul, Htay & Mcneil, 2012).

Another study done in Delta State, Nigeria revealed that 15.9% of the respondents were not disturbed or perturbed if adolescent services rendered to them in the presence of other patients while 84% felt their privacy would be compromised since others may hear of their concerns or challenges and stigmatized (Onokerhoraye & Dudu, 2017).

2.4 Health system factors

2.4.1 Service Provider's Attitude

Attendance to a health facility is be influenced by the welcoming attitude or negative behaviour of a health care provider. A study conducted in South Africa on healthcare worker behaviour indicated that, adolescent youth who become pregnant do not attend ANC associated with inability to sign on to any family planning methods. This behaviour was attributed to the cultural or religious beliefs of health care works which they use to counsel adolescent to abstain from sex or not to use of any as the presume that it rather encourages immorality (Jonas, Crutzen, Van Den Borne & Reddy, 2017).

A study conducted in Nigeria showed that adolescent do not patronize the youth friendly centre because health care providers were reluctant in introducing them to a family planning method and the health care providers (57.7%) also felt it was rather a way of promoting sexual promiscuity (Ahanonu, 2014). It is also important to treat an adolescent with respect, honesty and show them great support his helps them to build confidence and have trust in the health team and are able to communicate their challenges or problems better.

A study was conducted investigate accessibility and utilization of adolescent reproductive service in Kachebirra district in Ethiopia. The study outcome was that, 58% that duration of contact with service healthcare providers was adequate and his gave ample time for counselling while others(48%) indicated that time allocated for care was too short and attitude of healthcare personnel was nothing to write home about (Tigistu Lejibo, sahilu, Muktar &Tilahun 2017).

2.4.2 Lack of Knowledge on Importance of Reproductive Health Services.

Education is the key to success. To enhance and improve preventive health care services, the people must be pre-informed of the benefits of accessing care to help in early detection and treatment of diseases to prevent illness. To enhance productivity in schools, the quality of life of an adolescent must be addressed. They must be given adequate information on their reproductive needs, where they can access such services, the importance of engaging in these services and must be empowered of their rights to health care services (Kyilleh, Tabong and Konlaan, 2018). Many adolescents lack the knowledge or are still uninformed on need to opt for a safer sexual behaviour, importance of using family planning methods to prevent unintended pregnancies. Unfortunately, due to the poor knowledge on the various services available, they turn to seek advice rather from their peers, who have very little information instead of a well-oriented and skilled-trained educator on reproductive health services (Agampodi, Agampodi & Ukd, 2008).

Sexual and reproductive health needs is best discussed by parents to their children, but unfortunately, some parents also fill embarrassed in discussing and think it is too sensitive a topic. In certain cultures, it is even called for to address sexual issues until it is marriage. Parents feel it is in appropriate for an adolescent to engage in premarital sex so the mention of condom use and family planning as a method of protection against sexually transmitted disease (Newton-Levinson, Leichliter & Chandra-Mouli, 2016).

2.4.3 Service Provider's Competence

The confidence in the skill delivery and knowledge on job training is very important in the provision of care the youth friendly centres. The ability of the health care providers to provide reproductive health information on their needs, the risk problems associated to their health and the various services available to them (Jonas, Crutzen, Van Den Borne & Reddy, 2017). A study in Geneva on barriers to reproductive health care also indicated that women felt that the health workers must have some knowledge about their traditions, for instance, women not exchanging pleasantries through hand shake with males and Muslim not exposing her nakedness to other especially male was a barrier to accessing care. Furthermore, financial barriers on how to pay for cost of services, language affecting communication and lack of right information affected their accessibility to services (Schmidt, Fargnoli, Epiney & Irion 2018).

The tendency of a health care provider who has formal training on SRHS are more likely to understand the issues pertaining to adolescent health and advice or address their health needs accordingly. A study in Nepal on challenges and barriers faced by adolescent in accessing AFHS, attributed to the lack of expertise among health care providers and hoped that they undergo formal training on adolescent health becoming more resourced in providing quality care (Shrestha, 2017). Mbeba, Mkuye, Magembe, Yotham, Mellah and Mkuwa (2012) in their study discovered that many of the health institutions do not have trained service providers on sexual reproductive health rights. Adolescents who seek services on education, contraception and voluntary counselling and testing.

2.4.4 Waiting Time

A study conducted in five different states in Nigeria on the satisfaction of waiting time indicated that an average of 68% were not satisfied with the waiting time. That means, if they have to spent long hours in accessing a health check especially when they are not sick or perceive their problem not to be so severe than to them there was no need attending an AYFHS (Onokerhoraye & Dudu, 2017). Mbeba, Mkuye, Magembe, Yotham, Mellah and Mkuwa (2012) in their study discovered that many of the health institutions do not have trained service providers on sexual reproductive health rights. Adolescents who seek services on education, contraception and voluntary counselling and testing.

2.5 Utilization of reproductive health services

In Ghana, a study conducted by (Appiah-Mensah Aba, 2016) indicated that service utilization in a community Ashiaman was poor since 80.2% were deprived of the knowledge relating to reproductive health services, while 17.2% were also due to the facility sited at a far distance away from their residence and the expensive cost of treatment. A reproductive health study done in Ethiopia suggested that service utilization had an association with the knowledge or information the individual in that those who had heard of RHS utilized the services more as compared to those who had not. The study again revealed that the odds of RHs knowledge was higher among the age group of between 15-19 years as compared 10-14years (Abajobir & Seme, 2014).

Again, another study revealed that, 93.8% of adolescent had insight on VCT services through media, parents, health providers and parents. Parents who discussed RHS services with their adolescents were more likely to utilize the services available as compared to parents who did not. Mother with higher educational status and have adolescent below

19years are more likely to utilize than those whose parents were not educated (Zone & Negash, 2016). Additionally, they were interviewed on the perceived benefit, majority of respondents in the study, intensely established that, utilization of SRHS is an effective way for screening for and treating STI, preventing unsafe abortions. The respondents 812 (96.2%) acknowledge that patronage of SRHS could increase productivity in academic performance in school by decreasing absentee. A study in Ethiopia on adolescent utilization of RHS, indicated that only 25%of the respondent utilized the services such as VCT, family planning, abortion and STI screening. The study further identified that utilization of RHS was significantly dependent on the sex, parents educational status and proximity of the health facility to their homes (Taye Abate, Ayisa, & Mariam, 2019).

Violita and Hadi (2019), conducted in Indonesia on RHS utilization was determined by the level of knowledge on reproductive health, family and peer support. Many studies showed that family especially parents fond against RHS utilization but it is important for adolescent to receive the education from home, so not to be deceived by any unreliable information on social media.

Biddlecom *et al.,* (2008) discussed adolescents' views of and preference for sexual reproductive health in four countries including Ghana and observed that contraceptive use among males was higher (50-66%) than in females (43-65%) and these were mostly condom use. Further analysis in the study showed that utilization of reproductive health services were higher in females than males in other modern methods of contraceptives. Beyond the contraceptive utilization, the study further analysed the other forms of utilization including STIs services and HIV. It was observed that, in Ghana, about 90% of adolescents who were sexually active reported never experienced STI symptom and therefore did not for any services. However, among sexually-active adolescents who ever experienced STI symptom, more than two-thirds had never utilized services in any facility in Ghana.

Appiah (2015) conducted a study on the youth friendliness of reproductive health services utilization in Ghana among 170 students (150 in school and 20 out of school youth) aged 10-24 years. With a descriptive cross-sectional design, the study observed that out of the 170 study participants, 55.8% had used at least one or more of the reproductive health services. This was correspondent to the number of youth (58%) who had ever heard of the various reproductive health services available. Among the participants who had ever utilized the services, 37% and 44% respectively considered the services very friendly. Just only a few (18.6%) had issues with the services provided at the facilities.

Aninanya *et al.,* (2015) analysed the effects of adolescent sexual and reproductive health service usage by young people in Northern Ghana and came out with some key findings. It was noted that, after the introduction of Adolescent Reproductive Health Policy (2000) and National HIV/AIDS and STIs Policy (2001) initiatives, utilization of sexual and reproductive health services will increased over time. However, available data suggests that adolescents in Ghana continue to avoid SRH services, largely due to stigma and tagging around premarital sex, while over 750,000 adolescents become pregnant annually. Awusabo-Asare *et al.,* (2008) found that 2 in 3 young women and 4 in 5 young men with STI symptoms did not seek treatment, while approximately half of unmarried sexually-active female adolescents and over one-third of sexually-active male adolescents did not use contraceptives. A survey by GSS/GHS/ICF/Macro (2009) observed that about 5% female and 3.4% male adolescents reported having experienced STIs, HIV and syphilis prevalence among Ghanaian adolescents was 1.9% and 5.5% respectively, and 8% of female adolescents reported using contraceptives, while 13% of female adolescents had already given birth or were pregnant with their first child.

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CHAPTER THREE

METHODOLOGY

3.0 Introduction

This section presents the methods that were employed in the study which includes the design of the study, study variables and the sampling approach for the study. The processes for data collection as well as the source of data have been discussed. The various units of analysis in the study have been clearly explained in this chapter.

3.1 Study Site

This study was carried out in the Ga East Municipal Assembly (GEMA) which was carved of the Ga District which was established in 2004 by an Act of Parliament, Legislative Instrument (L.I)1749 as a district but elevated to a municipal in 2008. Ga East is sited in the northern part of Greater Accra region of Ghana. It is one of the 26 districts in the region and covers a land area of about 96 square kilometres (sq km). It has towns like Abokobi as the capital, Dome, Taifa, Ashongman, Haatso, Kwabenya, Ayi Mensa, Bansa, Oyarifa, and Pantang. The community has 6 public health facilities (13.3%) with Ghana Atomic Energy Hospital, Abokobi Health Centre and Pantang Hospital as the popular ones and 35 private health facility (81.4%). It has one Senior high school and 5 circuit basic schools.

According to the 2010 Population and Housing Census (2010 PHC), the population of the Ga East Municipality is 147,742 representing 3.68 percent of the population of the Greater Accra Region with 12,686(8.5%) been adolescents.

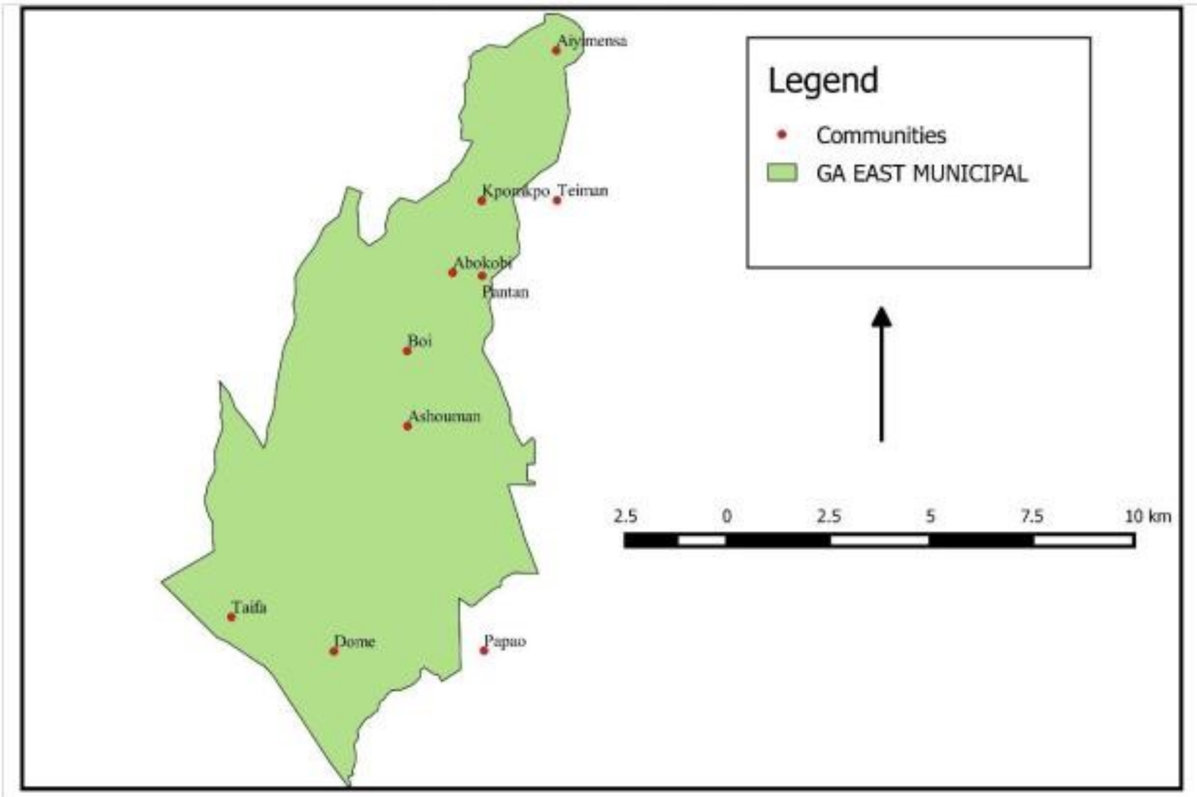

Figure 3.1: Map of Ga East Municipal Assembly, source google (2018)

3.2. Study Design

This study adopted a cross-sectional design. A quantitative data collection approach using a structured questionnaire was used to collect data from the adolescent on socio-demographic data, knowledge, awareness and factors influencing adolescent's accessibility and utilization of reproductive health service.

3.3 Study Participants

The study participants were adolescents between the ages of 10 – 19 years as stated by the World Health Organization (WHO), and per the Ghanaian educational system most of that age group are in Primary School, Junior High School (JHS) and Senior High School (SHS). The various public schools in the Ga East municipality were the target schools used for the study.

3.4 Inclusion and Exclusion Criteria

3.4.1 Inclusion criteria

The inclusion criteria included adolescent aged between 10 – 19years from the selected schools under this study and were willing to participate in the study.

3.4.2 Exclusion criteria

The study excluded adolescents who were sick and those who were unwilling to participate in the study.

3.5 Samplings procedure

A multistage sampling technique was used in this study. Firstly, list of the public schools in the municipality were obtained from the Ghana Education Service of the municipal. From the list of schools, the schools where grouped into two groups, thus SHS and all Basic schools. Using simple random sampling, one circuit of basic school were selected from the list of five circuit. In doing this, names of the schools where documented on pieces of paper, folded, and placed in a transparent container. An individual anonymous to the study objectives was asked to select a piece of paper without replacement. The Senior High School where selected using the Convenience sampling method. As it was the only secondary school in the municipality.

The classroom where 24 in all, a systematic sampling done, where very third class sampled making a total of nine in all. In selecting participants in the various schools. Proportionate sampling where again used to select the number of pupils to be interviewed in each class based on the allocated sample for the selected schools. In each class, pupils within age group 10-19 an identified. A **"yes"** and **"no"** balloting was done to randomly select the required number of pupils allocated for the study. Pupils who picked **"yes"** was interviewed and pupils who picked **"no"** was excluded from the study.

3.6 Sample size calculation

The sample of the study was calculated using the Cochran formula:

$$n = \frac{(\mathbf{Z\alpha/2)2\ P\ (1-P)}}{\boldsymbol{e^2}}$$

Where: n= sample size to be determined,

$(z\alpha/2)^{2}$ = Z-score of 1.96 at 95% Confidence level,

P=Estimated proportion unknown, hence we use 15%, thus 0.5 e=

margin of error=5% = 0.05

$$n = \frac{(1.96)^2 * 0.15(1-0.05)}{(0.05)^2} = 219$$

Adjusting for a 10% non-response rate gives, *0.1 * 219= 21.9=22*

Therefore, the desired sample size for the study was 22+219=241

3.7 Variables

3.7.1 Dependent Variable

Accessibility and Utilization of Reproductive Health Service.

3.7.2 Independent Variable

Socio-demography; Age, educational level, religion, occupation of parents or guardians, knowledge level of adolescents on reproductive health.

3.8 Pre-test of the instrument

The questionnaires where pre-tested on 20 adolescents at the West Africa Senior High School in the La Nkwantanan Municipality and Kwabenya Basic school. These where done in order to assess how the respondents understood the questionnaires and correct all inconsistencies. Adjustments were made to the terminology and formatting of the questionnaire based on the pre-test before the actual data collection began. The reliability and validity of the data was tested and the results showed accuracy rate of 99%.

3.9 Data collection

The principal investigator and one-research assistants did the data collection. The questionnaire where structured into four sections. Section one consisted of socio-demographic characteristics of respondents. The second session involved questions related to their knowledge on reproductive health service. Whilst section three comprised factors influencing perceived accessibility of reproductive health service and fourth section comprised of factors influencing utilization of reproductive health service.

3.10 Data Processing and Analysis

Data entered into Microsoft Excel using a laptop. This was to ensure accuracy and quality of the analysis. The data was later exported to Stata/IC 15 for analysis. Such as mean, frequency and percentages were use simple descriptive statistics to report on some-socio demographic characteristics, knowledge perception on accessibility and utilization of reproductive health service. For test of association, Chi Square statistical test where done to determine the association between the independent variable and the outcome variables. Multivariate logistic regressions where conducted to determine the strength of associations and factors influencing the accessibility and utilization of reproductive health services among adolescent in the selected schools. All associations were pinned to a p-value <0.05 which was considered statistically significant.

3.11 Data Collection Tool

Structured questionnaire administered by the researchers was used to gather relevant information on both the dependent and independent variables of the study.

3.12 Quality Control

Research assistant where trained to aid in data collection. As the principal investigator, supervised to ensure there were internal consistence and accuracy of the data collection process. Returned questionnaires where scrutinized for mistakes after every data collection session and respondents attention drawn to it. None of the questionnaires had unclear responses or a lot of missing information Entered data was crossed checked to reduce entry errors and to make the data, more reliable.

3.13 Ethical Considerations

Ethical clearance for the study was obtained from the Ethical Committee of the Ghana Health Service, Research and Development Division. Approval for the implementation of study as GHS –ERC 064/03/19**.** After approval, an introductory letter for School of Public Heath was sent to seek permission from the Ga East Municipal Director of Ghana Education Service. An approval letter was given to the study site and the headmistresses of the selected schools copied in the letter. Eligible participants were carried through consenting and assenting process. Participant information sheet were given to the respondents and all concerns addressed. The PTA chairperson of the various schools consented on behalf of all adolescents below 18 years. Informed consent was sought from participants above 18 years.

The participants were assured of no risk and no cost to bear aside their valuable time in answering the questionnaires. Study participants were assured of privacy and confidentiality as the information they provide was strictly for academic purposes. The questionnaires were coded and did not bear their names. The data collected is stored on a computer and a password created to prevent access by another person.

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter presents results from the statistical analysis of the data collected. A descriptive inferential analysis of socio-demographic characteristics of respondents, knowledge and findings on factors influencing the accessibility and utilization of reproductive health services among adolescent. The results were presented using brief interpretations and on tables.

4.2 Socio-demographic characteristics of participants

The results in table 4.1 below shows a representation of the socio-demographic characteristics of the respondents. The calculated sample size was 241 but the study randomly sampled 242 adolescents for interview, including 111(45.87%) males and 131(54.13%) females respectively responded to the questionnaires giving a total response rate of 100%. The mean age of the respondents was 15 with age category 17-19 years as the highest age group (44.63%). Out of the total respondents 214(88.43%) were Christians. In terms of educational level, all the respondent where educated with majority of the respondents 148 (61.16%) in SHS. A greater percentage of their guardians were self-employed whilst only 21(8.68%) where unemployed. Almost 60% of respondents stayed with their parents whilst 77 (31.82%) respondents stayed with single parents.

Table 4.1: Socio-demographic characteristics of participants

Variable	Frequency	Percentage (%)
Age		
10-13	35	14.47
14-16	99	40.9
17-19	107	44.63
Gender		
Male	111	45.87
female	130	54.13
Religion		
Christian	214	88.43
Muslim	24	9.92
traditional	3	1.24
Other	1	0.41
Educational level		
Primary	64	26.45
JHS	30	12.4
SHS	148	61.16
Occupation of Guardian		
unemployed	21	8.68
Public sector	32	13.22
Private sector	49	20.25
Self employed	140	57.85
Who you live with		
Both parents	144	59.5
Mother only	52	21.49
Father only	25	10.33
Other relative	21	8.68
Total	**242**	**100**

4.3 Knowledge level of adolescents on reproductive health services

This presents information on knowledge on the various reproductive health challenges faced by adolescents, the reproductive health services available, the awareness level of respondents on adolescent friendly health centres and whether there is enough education on adolescent sexual and reproductive health. Total respondents of 199 (82.23%) think that it is important for adolescent to have knowledge on sexual and reproductive health, most especially on topics such as sexually transmitted infection (STI), Family planning, HIV counselling and menstrual hygiene. The respondents indicated, they acquired SRH knowledge through school education (63.2%), social media (41%), parents (26%) healthcare providers (18%) and friends(32%).With respect to the various health challenges of adolescent, a majority of respondents identified early pregnancies(77%), sexually transmitted infections(68.4%) and poor menstrual hygiene(52%) has been detrimental to their reproductive health.

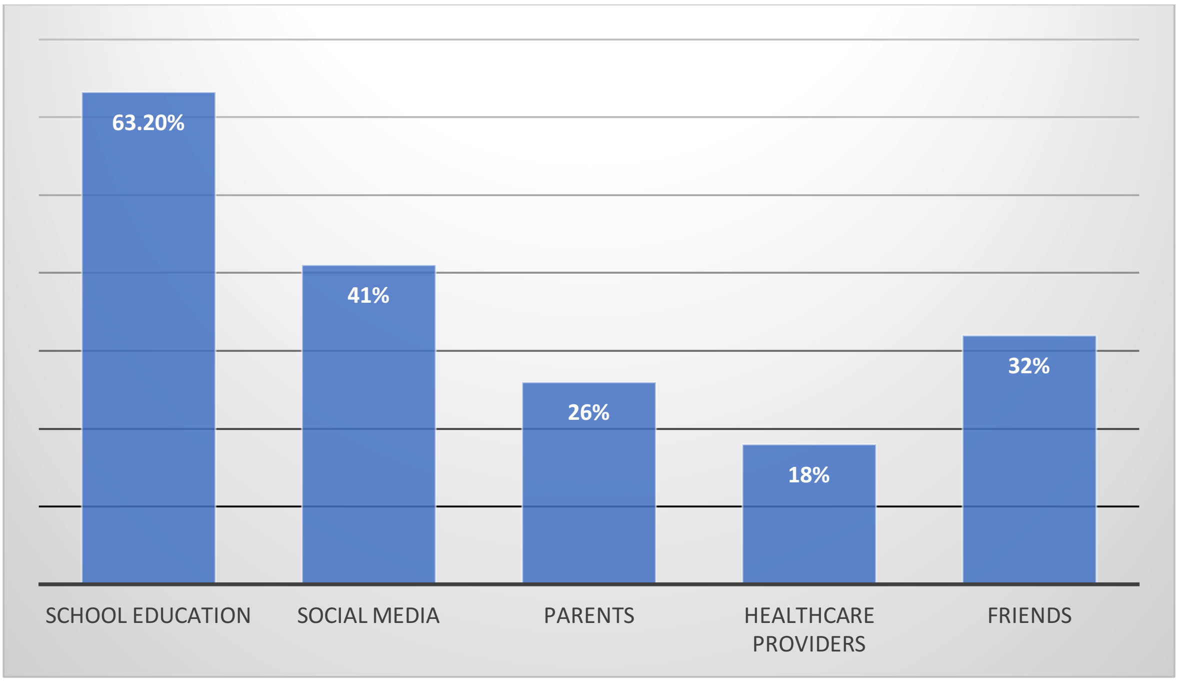

Figure 4.1: Sources of knowledge

About (191)80% were of the view that the use of condoms helps prevent STIs. A total of 171(70%) had acknowledge that sexual abstinence. Overwhelmingly a significant percentage of 147(60.74%) did not know there are adolescent friendly health centres available in their health centres where their reproductive challenges can be addressed. This study indicated that 175(72.31%) respondents acknowledged that they occasionally received information on reproductive health services against only 39(16.12%) who had never received any information. Interestingly, 165(68.18%) had not seen any posters or advertisement on reproductive health services. Over 195(80.58%) indicated that they were privileged to had peer educators talk to them in the school concerning reproductive health services but comparably 104(43.51%) thought that there isn't enough education on sexual and reproductive health service.

Table 4.2: Knowledge on Reproductive Health Services

Variables	Frequency	Percent (%)
Do you have knowledge on Sexual and Reproductive Health		
Yes	199	82.23
No	43	17.77
an condom use prevent HIV		
Yes	190	78.93
No	51	21.07
Sexual abstinence is best for preventing HIV/pregnancy		
Yes	171	70.66
No	70	29.34
Poor menstrual hygiene can cause infertility		
Yes	16	69.01
No	75	30.99
Heard of Adolescent Health And Friendly Services		
Yes	95	39.26
No	147	60.74
How Often Do You Receive Information On RHS		
Never	39	16.12
Occasionally	175	72.31
Most often	28	11.57
Is There Enough Education On AFHS		
Yes	138	57.02
No	104	43.51
Seen Any Poster Or Advert On RHS		
Yes	77	31.82
No	165	68.18
Peer Educators Talk To You In School On RHS		
Yes	195	80.58
No	47	19.42
Total	**242**	**100**

4.4 Factors Influencing Perceived Accessibility of Reproductive Health Services.

Significantly, a majority of the respondents 196(81%) were of the view that it is important for adolescents to get access to health care services. More than half 133(54.96%) of the adolescents indicated that the health facilities were too close to their community. A total of 155 (64.05%) of respondents admitted that they had readily available information on reproductive health but more than half of respondent 150(61.98%) felt the cost of treatment was expensive since they were not earning income to help access such care. A total of 132 (54.55%) and 148(61.16%) of them acknowledged that the poor attitude of health care workers associated with inadequate health workers could affect accessibility to a health facility. When asked how cultural beliefs and practices could influence the accessibility of health care services, 143(59.90%) agreed it has a negative influence. Most of the respondents 175 (72.31%) also agreed that parents' attitude and perception about sexual and reproductive health can influence their rate of accessing the SRHS. Only 70(28.93%) had ever accessed Adolescents Friendly Health Centre.

Table 4.3 Factor influencing perception of accessibility of Reproductive Health Services

Variables	Frequency	Percent (%)
Adolescent must have knowledge Sexual and Reproductive Health		
Disagree	12	4.96
Neutral	34	14.05
Agree	196	80.99
Prefer having the facility close to your community		
Disagree	112	46.28
Neutral	23	9.50
Agree	107	44.21
Readily available information on reproductive health		
Disagree	69	28.51
Neutral	18	7.44
Agree	155	64.05
Cost is expensive		
Disagree	68	28.10
Neutral	24	9.92
Agree	150	61.98
Inadequate health care providers		
Disagree	94	38.84
Neutral	16	6.61
Agree	132	54.55
Poor attitude of healthcare providers		
Disagree	89	36.78
Neutral	10	4.13
Agree	143	59.09
Certain cultural beliefs		
Disagree	90	37.19
Neutral	9	3.72
Agree	143	59.09
Do you think parents attitude can affect you accessing an SRHS		
Disagree	47	19.42
Neutral	20	8.26
Agree	175	72.31
Have you ever accessed SRHS		
Yes	70	28.93
No	172	71.07
Total	**242**	**100**

4.5 Factors Influencing Utilization of Reproductive Health Services

A total of 91(37.6%) had utilized SRHS in the last two years. Out of this number, 19(20.87%) went in for contraceptive/family planning methods, 28(30.76%) due to STI screening and treatment, just 5(5.49%) for breast examination, 2(2.19%) cases of pregnancies, 1(1.09%) abortion, 29(31.86%) counselling services and 7(7.69%) utilized HIV Voluntary testing. A total of 43 (47.25%) indicated that the services rendered were not done in private and there was lack of confidentiality. A significant number 77(84.62%) felt the health workers received them in a friendly manner. Almost 32% of the respondents did not request for any explanation of the services rendered to them. This study also indicated that 36(39.56%) were not satisfied with the services rendered. Significantly, majority of the respondents 151(62.4%) had never utilized the reproductive health service in the last two years. They attributed this to various reasons such as, waiting time in long queues 31(20.53%), attitude of health workers 29(19.21%), lack of knowledge 21(13.91%), cost of treatment 30(19.87%) and location of the facility 40(26.49%).

Table 4.3: Factors Influencing Utilization of Reproductive Health Care Services

Characteristics	Frequency	Percentage
Ever visited health facility for SRH		
Yes	91	37.6
No	151	62.4
How often		
Once	74	81.32
Twice	15	16.48
Thrice	2	2.20
Reasons for seeing health worker		
Contraceptive/family planning	19	20.87
STI screening and treatment	28	30.76
Breast examination	5	5.49
Pregnancy	2	2.19
Abortion	1	1.09
counselling	29	31.86
HIV testing	7	7.69
Total	91	100
Privacy and confidentiality		
Yes	48	52.75
No	43	47.25
Health workers treat you in friendly manner		
Yes	77	84.62
No	14	15.38
Request for explanation to any issues		
Yes	62	68.13
No	29	31.87
Satisfied with response		
Yes	55	60.44
No	36	39.56
Total	**91**	**100**
If No, why haven't you visited AHFS		
Waiting time	31	20.53
Attitude of health workers	29	19.21
Lack of knowledge	21	13.91
Cost of treatment	30	19.87
Distance to the facility	40	26.49
Total	**151**	**100**

4.6 Bivariate Analysis Using Pearson's Chi- Square

4.6.1 Socio-Demographic Characteristics Influencing Accessibility of SRHS

The questionnaire sought to find out from the respondents whether they had ever visited or accessed the SRHS in the last 2 years or otherwise. This study indicated that close to 29% of the respondents had accessed SRHS illustrated in table 4.5. Interestingly, the study found that adolescent within the age groups of 14-16 years (36.4%) accessed facility more as compared to the 10 -13 years age group (20%) been the least group to have accessed the facility. This difference in SRHS been accessed by age was found to be statistically significant at 5% ($p<0.05$). The analyses revealed that the proportion of females who have accessed SRH services (29.77%) were relatively higher than proportion of males who accessed SRH services (27.93%). The proportion of adolescents in JHS who had accessed SRH services (36.63%) were higher comparatively to other class group but was not statistically significant. Interestingly, higher proportion of adolescents (72.22%) who lived with their parents have not accessed the SRHS.

Table 4.4: Socio-Demographic Characteristics Influencing Accessibility of SRHS

Variable	Accessed N (%)	Not Accessed N (%)	Chi-square, p-value
Age			**20.4507, 0.009**
11-13	7(20.00)	28(80.00)	
14-16	36(36.4)	63(63.60)	
17-19	27(24.8)	82(75.20)	
Gender			0.0993, 0.753
Male	31(27.93)	80(72.07)	
Female	39(29.77)	92(70.23)	
Religion			0.6806, 0878
Christian	61(28.50)	153(71.50)	
Muslim	8 (33.33)	16(66.67)	
Traditional	1(33.33)	2(66.67)	
Other	0(0.00)	1(100.0)	
Educational level			1.0698, 0.586
Primary	17(26.56)	47(73.44)	
JHS	11(36.67)	19(63.33)	
SHS	42(28.38)	106(71.62)	
Occupation of Guardian			1.5419, 0673
Unemployed	6(28.57)	15(71.43)	
Public sector	11(34.38)	21(65.63)	
Private sector	11(22.45)	11(22.45)	
Self employed	42(30.00)	98(70.00)	
Who you live with			2.0564, 0.561
Both parents	40(27.78)	104(72.22)	
Mother only	17(32.69)	35(67.31)	
Father only	9(36.00)	16(64.00)	
Other relative	4(19.05)	17(80.95)	

4.6.2 Bivariate Analysis: Knowledge Characteristics Influencing Accessibility of SRHS

About 71% of respondents who had knowledge on reproductive health services did not access or visit the health facility as compared to 29.15% who had the knowledge and accessed the facility. Analysis of the study indicated that 41.05% of those who heard of Adolescent Friendly Health Centre accessed SRHS as compared to 58.95% who had knowledge but were not accessing the SRHS. The differences in accessibility by knowledge on having heard of AFHS were tested and found to be statistically significant ($p<0.05$). The respondents (35.06%) attributed their knowledge acquired from posters or adverts influenced them to visit or access a SRHS while 64.94% were of the view that, seeing a poster or advert did not influence their choice of accessing a SRHS. Almost 31% had knowledge on condom and it influenced their decision to access the SRHS while 69% had knowledge but that still were not accessing. Interestingly 71.35% had knowledge that sexual abstinence was the best in preventing pregnancies and did not access SRH service centre to gain more knowledge and understanding.

Table 4.5: Knowledge characteristics influencing accessibility of SRHS

Variable	Accessed N (%)	Not Accessed N (%)	Chi-square, p-value
Knowledge on SRHS			0.0264, 0.871
Yes	58(29.15)	141(70.85)	
No	12(27.91)	31(72.09)	
Heard of AFHS			**11.1875, 0.001**
Yes	39(41.05)	56(58.95)	
No	31(21.09)	116(78.91)	
Seen or influenced by any poster/advert on SRHS			2.0705, 0.150
Yes	27(35.06)	50(64.94)	
No	43(26.06)	122(73.94)	
Know on condom use			1.7012, 0.192
Yes	59(30.89)	132(69.11)	
No	11(21.57)	40(78.43)	
Sexual abstinence to prevent pregnancy			0.0208, 0885
Yes	49(28.65)	122(71.35)	
No	21(29.58)	50(70.42)	
Poor menstrual hygiene cause infertility			0.1602, 0.689
Yes	11(34.38)	21(65.63)	
No	11(22.45)	11(22.45)	

4.6.3 Bivariate Analysis: Perception Characteristics Influencing Accessibility of SRHS

Analysis showed that only 28.57% of respondents who agreed that adolescents should have access to SRHS were those who actually agreed to the perception that adolescents' access to SRH is key. Statistically, only attitude of healthcare worker associated with the perception index factors was significant in determining accessibility of SRH services. Only 28.67% of those who accessed SRH facilities agreed that cost is a major factor in determining accessibility, but this was not statistically significant.

Table 4.6: Perception Characteristics Influencing Accessibility of SRHS

Variable	Disagree N (%)	Neutral N (%)	Agree N (%)	Chi-square, p-value
Adolescents should have access to SRHS				1,0592, 0.589
Yes	5(41.67)	9(26.47)	56(28.57)	
No	7(58.33)	25(73.53)	140(71.43)	
Prefer health close to your community				0.3658, 0.833
Yes	31(27.68)	6(26.09)	33(30.84)	
No	81(72.32)	17(73.9)	74(69.16)	
There is readily available info on SRH				2.0705, 0.150
Yes	18 (26.09)	4(22.22)	48(30.97)	
No	51 (73.91)	14(77.78)	107(69.03)	
Cost is expensive				1.0625, 0.588
Yes	18(26.47)	9(37.50)	43(28.67)	
No	50(73.53)	15(62.50)	107(71.33)	
Inadequate healthcare providers				1.4877, 0.475
Yes	23(24.47)	5(31.25)	42(31.82)	
No	71(75.53)	11(68.75)	90(68.18)	
Poor attitude of health workers				**5.1128, 0.047**
Yes	23(25.84)	6(60.00)	41(28.67)	
No	66(74.16)	4 (40.00)	102(71.33)	
Certain cultural beliefs				0.3455, 0.841
Yes	25(27.78)	2(22.22)	43(30.07)	
No	65(72.22)	7(77.78)	100(69.93)	
Parents attitude				0.6263, 0.731
Yes	12(25.53)	7(35.00)	51(29.14)	
No	35(74.47)	13(65.00)	124(70.86)	
Poor self confidence				1.2215, 0.543
Yes	19(31.67)	4(19.05)	47(29.19)	
No	41(68.33)	17(80.95)	114(70.81)	

4.6.4 Bivariate Analysis: Socio-Demographic Factors Influencing Utilization of SRHS

Averagely, age categories 14-16 and 17-19 had higher utilization rates of 30.3% and 50% respectively and this is statistically significant at 5%. This shows that there is significant association between age and utilization of SRH services. The analysis indicated that 55% of female used the SRHS more as compared to males with percentage of 46. There is significant association between gender and utilization of SRH (X^2=6.0826, p=0.014). This study showed that almost 47% of SHS adolescent utilized SRHS as compared to 53% who were not. Interestingly a larger number in primary school 92% were not utilizing the services available. This showed that there is a significant association between Educational level and utilization (X^2=33.984, p<0.001). Occupation of guardian and whom, the respondents live with had no significant association with service utilization

Table 4.7: Socio-demographic factors influencing utilization of SRHS

Variable	Utilized N (%)	Not utilized N (%)	Chi-square, p-value
Age			**13.9448, 0.001**
10-13	7(20.0)	28(80.00)	
14-16	30(30.3)	69(60.70)	
17-19	54(50.0)	54(50.00)	
Gender			**6.0826, 0.014**
Male	51(45.95)	40(30.60)	
female	60(54.05)	91(69.47)	
Religion			0.8590, 0.835
Christian	82(38.32)	132(61.68)	
Muslim	8 (33.33)	16(66.67)	
traditional	1(33.33)	2(66.67)	
other	0(0.00)	1(100.00)	
Educational level			**33.9845, 0.000**
Primary	5(7.81)	59(92.19)	
JHS	17(56.67)	13(43.33)	
SHS	69(46.62)	79(53.38)	
Occupation of Guardian			0.5248, 0.913
unemployed	7(33.33)	14(66.67)	
Public sector	11(34.38)	21(65.63)	
Private sector	20(40.82)	29(59.18)	
Self employed	53(37.86)	87(62.14)	
Who you live with			4.1291, 0.248
Both parents	59(40.97)	85(59.03)	
Mother only	20(38.46)	32(61.54)	
Father only	8(32.00)	17(68.00)	
Other relative	4(19.05)	17(80.95)	

4.6.5 Bivariate Analysis Using Pearson's Knowledge Factors Influencing Utilization of SRHS

About 43% had knowledge on SRHS and had utilized any of the services in the last two years as compared to a little over 57% who had the knowledge on SRHS and its benefits but had not utilized the services. The results showed that 47.37% who had heard of AFHC influenced them in utilizing the reproductive health service as compared to a little over 68.71% who had not heard of AFHC. Similarly, 59.7% of adolescents who have seen any poster or an advert utilized SRH services. The bivariate analysis on knowledge factors showed that knowledge on SRH, heard or know of AFHS and seen any poster or advert had significant association with utilization ($p<0.05$).

Table 4.8: Knowledge factors influencing utilization of SRHS

Variable	Utilized N (%)	Not utilized N (%)	Chi-square, p-value
knowledge on SRH			**12.4652, 0.000**
Yes	85(42.71)	114(57.29)	
No	6(13.95)	37(86.05)	
Heard of AFHS			**6.3561, 0.012**
Yes	45(47.37)	50(52.63)	
No	46(31.29)	101(68.71)	
Seen any poster/advert on SRHS			**23.5869, 0.000**
Yes	46(59.74)	31(40.26)	
No	45(27.27)	120(72.73)	
Knowledge on condom use			1.1469, 0.702
Yes	73(38.22)	118(61.78)	
No	18(35.29)	33(64.71)	
Sexual abstinence to prevent pregnancy			0.4500, 0.502
Yes	62(36.26)	109(63.74)	
No	29(40.85)	42(59.15)	
Poor menstrual hygiene cause infertility			0.2661, 0.606
Yes	61(36.53)	106(63.47)	
No	30(40.00)	45(60.00)	

4.6.6 Bivariate Analysis: Adolescent perception factors influencing utilization of SRHS

A little over 69% who did not utilize a facility agreed that the poor attitude of health care workers was an influencing factor as compared to 48% who disagreed to this perception and still a utilized the services available. This was statistically significant with a ($p<0.05$). A total of 72.03% agreed that certain cultural practices influence their perception of not utilizing the SRHS while almost 49% disagreed that cultural beliefs did influence their decision not to utilize SRHS. Cultural belief was observed to have a significant association with utilization ($X^2=16.7298$, $p=0.000$)

Table 4.9: Bivariate Analysis: Adolescent Perception Factors Influencing Utilization of SRHS

Variable	Disagree N (%)	Neutral N (%)	Agree N (%)	Chi-square, p-value
Adolescents should have access to SRHS				1,1874, 0.552
Yes	6(50.00)	11(32.35)	74(37.76)	
No	6(50.00)	23(67.65)	122(62.24)	
Prefer health close to your community				1.2385, 0.538
Yes	40(35.71)	7(30.43)	44(41.12)	
No	72(64.29)	16(69.57)	63(58.88)	
There is readily available info on SRH				2.2217,0.329
Yes	22(31.88)	9(50.00)	60(38.71)	
No	47(68.12)	9(50.00)	95(61.29)	
Cost is expensive				0.2365, 0.888
Yes	26(38.24)	10(41.67)	55(36.67)	
No	42(61.76)	14(58.33)	95(63.33)	
Inadequate healthcare providers				1.4122, 0.814
Yes	37(39.36)	5(31.25)	49(37.12)	
No	57(60.64)	11(68.75)	83(62.88)	
Poor attitude of health care workers				**6.8921, 0.032**
Yes	43(48.31)	3(30.00)	45(31.47)	
No	46(51.69)	7(70.00)	98(68.53)	
Certain cultural beliefs				**16.7298,0.000**
Yes	44(48.89)	7(77.78)	40(27.97)	
No	46(51.11)	2(22.22)	103(72.03)	
Parents attitude				3.1929, 0.203
Yes	23(48.94)	7(35.00)	61(34.86)	
No	24(51.06)	13(65.00)	114(65.14)	
Poor self confidence				1.1738, 0556
Yes	26(43.33)	8(38.10)	57(35.40)	
No	34(56.67)	13(61.90)	104(64.60)	

4.7 Multivariate Analysis using Logistics Regression on factors influencing accessibility of SRHS

Multivariate analysis was done to further test the strength level of the model to know whether some other factors determines the accessibility of SRH services. This was necessary since, for instance, in the bivariate chi2 analysis, three factors (age, whether one has heard of SRHS and the attitude of health workers) were statistically significant to have an association with accessibility of SRH services. The results showed that, age, attitude of health workers, knowledge about AFHS and the presence of peer educators were statistically significant. The odds of visiting SRH centres among ages 14-16 years is 4.7 higher than those between ages of 10-13. AOR= 4.7 (95%, CI: – 1.3-17.70). The study revealed that the odds of adolescents who know nothing or heard about AFHS is 3.14 times more likely to visit an AFHC as compared to those who have not known or heard about AFHS. AOR= 3.14 (95% CI: - 1.44- 6.82). Additionally, adolescents who have peer educators giving them information on RHS have a higher chance of visiting an AFHC as compare to those who do not have any information on where to access care. AOR=2.93 times (95% CI – 1.97- 8.86).

Similarly, the odds of adolescents who agree that poor attitude of health workers can influence accessibility are 87% less likely to access SRH services AOR= 0.13 (95% CI: -0.25-0.76).

Table 4. 10: Logistics Regression on factors influencing accessibility of SRHS

	EVER VISITED			
Characteristics	**Unadjusted OR (95% CI)**	**p-value**	**Adjusted OR (95% CI)**	**p-value**
Age				
10-13	1		1	
14-16	2.28(0.90, 5.7)	0.079	4.7 (1.3- 17.07)	**0.015** ***
17-19	1.33 (0.52, 3.39)	0.547	2.6 (0.58, 12.37)	0.204
Gender				
Male	1		1	
Female	1. 09 (0.62, 1.91)	0.753	1.32 (0.62, 2.57)	0.503
Educational level				
Primary	1		1	
JHS	1.60 (0.63, 4.04)	0.320	3.30 (0.67, 16.21)	0.141
SHS	1.09 (0.56, 2.11)	0.787	1.05 (0.29, 3,77)	0.939
Whom you stay with				
Both parents	1		1	
Mother only	1.26 (0.63, 2.5)	0.504	1. (0.40, 2.34)	0.964
Father only	1.46 (0.59, 3.57)	0.405	2.16 (0.68, 6.8)	0.186
Other relative	0.61 (0.19, 1.92)	0.402	0.48(0.11, 2.03)	0.325
Health facility close to you				
Neutral	1		1	
Disagree	1.08 (0.39, 3.00)	0.87	0.72(0.19, 2.75)	0.64
Agree	1.26 (0.45,3.49)	0.65	1.92 (0.48, 7.67)	0.35
Poor attitude of health				
Neutral	1		1	
Disagree	0.66 (0.27,1.64)	0.38	0.21 (0.04, 1.12)	0.068
Agree	0.60 (0.22,1.60)	0.031	0.13 (0.25, 0.76)	**0.023*** **
Cost is expensive				
Neutral	1		1	
Disagree	1.34(0.26, 6.92)	0.72	0.63(0.19, 2.11)	0.354
Agree	1.50 (0.30,7.54)	0.61	0.53 (0.18, 1.82)	
Seen poster/advert				
No	1		1	
Yes	1.53(0.85-2.74)	0.152	1.20(0.51, 2.89)	0.669
Know about AFHS				
No	1		1	
Yes	2.60 (1.47, 4.60)	0.000	3.14(1.44, 6.82)	**0.004*** **
Peer educator talk in school				
No	1		1	
Yes	2.72 (1.15, 6.42)	0.022	2.93(1.97, 8.86)	**0.046*** **

4.8 Multivariate Analysis on factors influencing utilization of SRHS

The table2 shows a multivariate analysis using a logistic regression analysis to determine the factors that influencing the utilization of SRHS after adjusting all variables. The results showed that socio-demographic factors that were found to have a statistically significant influence utilization include; age, gender and educational status. Similarly, knowledge variables that influenced utilization includes, knowledge on AFHS and influence of seeing a poster or advertisement on SRHS at a $p < 0.005$ and a CI- 95%.

The odds of utilizing RHS is 5.95 times higher among 14-16 years. AOR=5.95 (95% CI:-1.26-13.10) as compared to 10-13 age group. Additionally, there is 9.87 times likelihood of utilization among 17-19 as compared to 12-13 years. AOR = 9.87(2.38-15.06). Female adolescents where 1.55 times more likely to utilize SRHS as compared to males AOR = 1.55 (95% CI: -1.28- 2.06). The odds of utilizing SRHS is 7.8 times among respondents with JHS as compared to those in primary school higher AOR = 7.80 (95% CI: - 2.92-13.34). Additionally, the study showed that, adolescents in SHS are 6.1times more likely to utilize SRHS as compared to adolescent in primary school. AOR= 6.1 (95% CI:-1.44 - 8.26)

The study showed that adolescents who have heard or acquired knowledge on AFHS where 2.11 times more likely to utilize reproductive health service as compare to those who had not heard. AOR=2.11(95% CI: 1.04 - 4.42) Adolescents who have seen any poster or advert concerning SHR and services are 4.33 times chances of utilizing SRH services AOR=4.33(95% CI: 2.02-9.26). The study revealed that the adolescent who do have peer education on RHS have 1.81times higher chances of utilizing the SRHS as compared to those who have not acquired knowledge from the peer educators.

Table 4.11 Logistic Regression Factors Influencing Utilization of Reproductive Health Service

	UTILILIZED	SRHS		
Variables	**Unadjusted OR (95% CI)**	**p-value**	**adjusted OR (95% CI)**	**p-value**
Age				
10-13	1		1	
14- 16	1.73 (0.68, 4.41)	0.245	5.95 (1.26, 13.10)	**0.024** ***
17-19	4.00 (1.60, 9.93)	0.003	9.87 (2.38, 15.06)	**0.003** ***
Gender				
Male	1		1	
Female	0.51(0.30, 0.87)	0.014	1.55 (1.28, 2.06)	**0.047*****
Educational level				
Primary	1		1	
JHS	3.41(4.81, 9,41)	0.000	7.80 (2.94, 13.34)	**0.000*****
SHS	8.36 (3.9,7.14)	0.000	6.1 (1.44, 8.26)	**0.016*****
Whom you stay with				
Both parents	1		1	
Mother only	0.90 (0.47, 1.72)	0.752	0.77 (0.33, 1.76)	0.537
Father only	0.67 (0.27,1.67)	0.399	0.46 (0.51, 1.42)	0.179
Other relative	0.33 (0.10, 1.05)	0.063	0.36 (0.08, 1.55)	0.173
Know about RH				
No	1		1	
Yes	4.59(1.85, 11.39)	0.001	1.62 (0.32, 1.76)	0.553
Know about AFHS				
No	1		1	
Yes	1.97 (1.16, 3.36)	0.012	2.11 (1.04, 4.42)	**0.047*****
How often inform is received on AFHS				
Never	1		1	
Occasionally	0.97 (0.47, 2.02)	0.956	0.39 (0.15, 1.02)	0.056
Most often	2.06 (0.76, 5.54)	0.152	0.38 (0.10, 1.44)	
Seen any poster or advert				
No	1		1	
Yes	3.95(2.23, 6.99)	0.000	4.33 (2.02, 9.26)	**0.000*****
Peer educator education in school				
No	1		1	
Yes	3.6 (1.40, 6.68)	0.005	1.81 (1.68, 4.82)	**0.024*****

4.9 Summary of the chapter

The participants included 45.87% of males and 54.13% of female's adolescents participated in the study. The results showed that adolescent between ages 14-19 years are more likely to utilize as compare to those between 10-13 years. The adolescents indicated that they receive information from Friends (72%), school education (63.2%), social media (41%) and healthcare providers (18%). The study revealed that peer educator talks or information and knowledge on where to access AFHS where all an influential factor. Poor attitude of healthcare workers was also statistically significant.

CHAPTER FIVE

DISCUSSIONS

5.0 Introduction

This chapter discusses the main findings of the study in relation to literature from other studies. The discussion is categorized according to the key objectives and findings of the study. Key areas highlighted in the discussion part include knowledge, accessibility and utilization of SRH services.

5.1 Adolescent knowledge on Sexual Reproductive Health Services

The study made some findings, which were in conformity with other studies conducted in other parts of the globe. The study observed that general knowledge among adolescents on sexual reproductive health was high (82.3%). This result is relatively higher as compared to the result obtained in a study by Gaferi *et al.,* (2018) which showed that adolescent general knowledge on reproductive health was 66.3%. Knowledge on other specific SRH characters were also noted to be relatively high among adolescents in the study area. For instance, general knowledge on menstrual hygiene was observed to be 69.1%, interestingly result on menstrual hygiene knowledge level was is a bit lower in the study as compared to study conducted by Gaferi *et al*., (2018) which revealed that about 95.4% of adolescents in Saudi Arabia had concrete knowledge about menstrual hygiene practice. Furthermore, the study showed that nearly 79% of the adolescents' respondents (72%) among the adolescent boys and girls.

The GDHS (2008) showed that adolescents with general knowledge on condom use was 78.9% which is almost the same as the findings from the study showed that nearly 72.3% of adolescents in Ghana have concrete knowledge on condom use.

It was observed that adolescent challenges confronted by respondents included, unsafe abortion, STIs, early pregnancy and poor menstrual. These findings are not different from studies from other countries. WHO (2008) in a report on adolescent health challenges mention early pregnancy, unsafe abortion, HIV, STIs and sexual assault and rape as the main adolescent health challenges globally. This shows that in almost all countries especially in developing countries, adolescent health challenges are similar. Again, Morris and Rushwan (2015) discussed adolescent sexual and reproductive health challenges and mentioned that adolescents are faced with the challenges of early pregnancy and parenthood, difficulties in accessing contraceptives and safe abortion, high rates of HIV and STIs.

5.2 Sources of knowledge

When adolescents were asked their source of knowledge, the results showed that four sources of information were common –friends, school education, social media and health provider. It is evident in western world that adolescent receive RH information from the internet, posters and advertisement. This study proof that adolescent appreciated information from such sources other than health workers. A study conducted in rural Bangladesh, on reproductive health awareness among girls showed that 85% of the adolescents in this study had insight into reproductive health through one or more kind of media either television, posters or the social media platforms. Based on their level of awareness, the utilization level of health care services was improved (Uddin & Choudhury, 2008). A study by Agampodi and Agampodi (2008) also showed that adolcents turn to seek advices from their peers instead of a healthworker with the skills and knowledge. This study also also showed that adolescent where not utilizing services due to poor attitude of healthcare providers and this study showed that adolescents preferred social media information, peer educators, posters and advertisement.

5.3 Factors affecting the accessibility of reproductive health services among adolescents

The findings on accessibility shows a variety of factors that contributes to the accessibility of sexual reproductive health services. The results showed that 80.9% of the adolescents agree that adolescents should have access to SRH services. Significantly, age was one major factor that influenced accessibility in the study. Denno *et al.,* (2015) indicated that many adolescents attributes accessibility to SRH to cost since they do not work to earn money to pay for the services. This is largely because most of the students are not close to where the facilities are and therefore require money to cater for their transport. More than 61% of the adolescents reported and agree that cost is factor that influence their accessibility to SRH services but the association was not significant into this study. The study also found out that attitude of health workers influence accessibility of SRH.

About 59% of the respondents agree that attitude of health workers affect their accessibility to SRH services. Lejibo *et al.,* (2017) in a study on factors affecting adolescent SRH accessibility indicated that the attitude of healthcare providers was nothing to write home about and by so doing, affected accessibility of SRH services. Another study conducted in South Africa by Jonas *et al.,* (2017) showed that youth who become pregnant do not attend ANC and are unable to sign on to any family planning methods due to the behaviour of health workers. Ahanonu (2014) also mentions that adolescents in Nigeria do not patronize the youth friendly centres because healthcare providers were reluctant in introducing them to a family planning method, at the same time about 57% of the health workers claim introducing the adolescents into SRH was a way of encouraging promiscuity. There was a significant association between poor attitudes of healthcare workers influencing accessibility to a facility in this study.

The study also showed that about 72.3% of the respondents agreed to the fact that parents' attitude influence SRH accessibility as evidence by 60% of respondent lived with both parents and 32% lived with single parents yet they were not receiving much information on RH from their parents. Newton-Levinson *et al.,* (2016) indicated that, some parents feel embarrassed in discussing sexual issues with their children. They further mentioned that it is a taboo to address sexual issues until it is marriage and that they feel it is inappropriate for adolescents to engage in premarital sex. Therefore, the mentioning of condom use and family planning are prohibited.

5.4 Factors affecting that influence an adolescent utilization of reproductive health services

The study observed a number of findings that influenced utilization of reproductive health services. The study observed that only about 37% of the adolescents in Ga East utilized SRH services. Binu *et al.,* (2018) in a study in Ethiopia showed that utilization of SRH services among adolescents was 21.2%, a little lower than the findings in findings observed. Among the services that were available, the adolescents utilized services like STI screening, counselling, contraceptive and family planning and HIV testing. Negash (2016) mentioned that the commonest SRH services adolescent utilized are screening and treatment for STI and preventing unsafe abortion. This study showed HIV testing (8%), STI (31%) and contraceptive (21%).

A reproductive health study done in Ethiopia (Abajobir & Seme, 2014) suggested that service utilization has an association with the knowledge or information the individual had, in that, those who have heard of RHS utilized the services more as compared to those who had not. The study again revealed that the odds of RHS knowledge was higher among the age group 14-19 years who also were more to utilize the services than those in ages of 10-13 years.

CHAPTER SIX

CONCLUSION AND RECOMMENDANTION

6.0 Introduction

This chapter gives a conclusion on the findings of the study and recommendation of the policy that can be implemented, to improve service delivery and increase Sexual and Reproductive Health utilization among adolescents.

6.1 Factors influencing accessibility and utilization of SRH

Sociodemographic factors

The chi-square and multivariate analysis showed that age range of between 14-19 years turn to access and utilize of SRHS more as compared to the 10-13 years. Age is therefore a key factor in accessing and utilizing SRH services. The odds of a JHS and SHS student accessing and utilizing the SRHS was higher than that of a primary school adolescent. This concludes that the higher one attains educational status the higher your chances of SRH service utilization. Gender was significant as the study showed that more female accessed and utilized the service more as compared to the males.

Knowledge factors

The study clearly showed that adolescents had knowledge on sexual and reproductive health and the various services available. This was significant that an adolescent knowledge on reproductive health increases the chances of accessing and utilizing the services available. Respondents within senior high school had utilized reproductive health service more as compared to respondents within the lower educational brackets. The study showed that having heard of AFHS and seeing advertisements and posters were all significant in accessibility and service utilization. Generally, in spite of the knowledge the adolescent had on reproductive health, patronage is still low at the friendly health centre so there is a need to consistently update their knowledge to help create the awareness of the services available.

Accessibility factors

Poor attitude of health care workers and certain cultural practices were significant at bivariate analysis level. However, with further testing of strength, the study revealed that only poor attitude of health care workers was significant. Interestingly factors such as cost of treatments, shyness and inadequate service providers were not significant to this study. The cost may not be relevant as in other studies because most parents were employed and could afford pay for treatment of their adolescent.

Utilization

The study showed that 55% of female used the SRHS more as compared to 46% males There is significant association between gender and utilization of SRH. Again, adolescents between the ages 14-19 are more likely to utilize SRH services than adolescents below 14 years. The finding also revealed that 32% utilized counselling services, while 30% went in for STI treatment, 21% family planning and other contraceptive use and only 1% abortion case. However, the services are not closed to the students and therefore required that adolescent friendly centres should be located close to the adolescents with close distance.

6.2 Recommendation

1. There must be inter-sectorial collaboration between Ga East District Health Authority and Ghana Education Service within the district to in -cooperate sexual and reproductive health into the education curriculum in schools to help improve knowledge and enhance adolescent likelihood of utilizing the service.

2. The municipal health directorate should organise customer care training and workshop regularly for health care workers and peer educators to help improve on their service delivery and competence.
3. Peer educators and health care professional in the district must also embark on vigorous health campaign and education to enhance utilization of SRH services.
4. With about 41% receiving information on adolescent reproductive health through the media, it would be more appropriate and beneficial to engage media personnel in reproductive health training to help disseminate information well to adolescents.

6.3 Limitation of the study

The study had some limitations in relation to the sample size which cannot be used to generalize that the findings of this study is in relation to all adolescents in the various schools in Ghana and have the same factors influencing accessibility and utilization of reproductive health services.

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APPENDICES

APPENDIX I: DATA COLLECTION TOOL

FACTORS INFLEUNCING ACCESSIBILITY AND UTILIZATION OF REPRODUCTIVE HEALTH SERVICES AMONG ADOLESCENTS IN THE GA EAST MUNICIPALITY

Questionnaire Code: ……… Date of ……………………… **Session 1: Socio-demographic characteristics of participants**		
1. Age (in years)		………………………….
2. Gender	1. Male 2. Female	……………………………….
3. Religion	1. Christian 2. Muslim 3. Traditional 4. Other, Specify	………………………………. ………………………………. ………………………………. ……………………………….
4. Current level of education	Primary. 1. JHS SHS	………………………………. ………………………………. ……...……………………………
5. What is the occupation of the one you staying with?	1.unemployed 2.public servant 3.Private sector worker 4.self employed	…………………………….. ………………………………. ………………………………. ……………………………….
6. Whom do you live with at home?	Both parents Mother only Father only Other relatives Other, specify	………………………………. ………………………………. ……………………………….

Session 2: Knowledge on Reproductive Health Screening and Service		
7. Do you think adolescents must have knowledge about sexual and reproductive health	1.Yes 2. No	………………………………. ……………………………….

8. Can the use of condoms prevent STIs?	1.Yes 2. No	………………………………
9. Sexual abstinence is the best in preventing pregnancy.	1.Yes 2. No	……………………………… ………………………………
10.Can poor menstrual hygiene cause infertility?	1.Yes 2. No	……………………………… ………………………………
11. How did you know about sexual and reproductive health.	1. school education 2. social media 3. parents/guardians 4. health provider 5. friends 6. other, specify…………..	……………………………… ……………………………… ……………………………… ……………………………… ……………………………… ………………………………
12.What are some of the health challenges faced by adolescents	1.Early pregnancy 2.Sexual violence 3.STIs 4. Unsafe abortions 5.Poor menstrual hygiene	
13. What sexual and reproductive health topic(s) have you ever heard?	1.Sexually Transmitted Infections 2.Family planning 3.HIV counselling and testing 4.Pregnancy testing 5.Unsafe abortions 6.Menstrual hygiene 7.Antenatal and post-natal services	……………………………… ……………………………… ……………………………… ……………………………… ……………………………… ……………………………… ………………………………
14. Have you heard or know about of adolescent friendly health centre?	1. Yes 2. No	……………………………… ………………………………
15.How often do you receive information on the various reproductive health services available?	1. Never 2.occasiona 3. most of the time	……………………………… ……………………………… ………………………………
16.Do you think there is enough education on the adolescent friendly health services?	1.YES 2. NO	……………………………… ………………………………
17. Have you ever seen any poster or advertisement about adolescent health services?	1.YES 2. NO	……………………………… ………………………………
18.Do you have health workers or peer educators coming to talk in your school about adolescent's sexual health services?	1.YES 2. NO	……………………………… ………………………………

19. Have you accessed/visited a SRHS in the last 2 years	1.YES 2. NO	……………………………… ………………………………

FACTORS INFLUENCING ADOLESCENTS PERCEPTION OF ACCESSING REPRODUCTIVE HEALTH SERVICE

Please indicate the extent to which you disagree, neutral or agree to the listed health systems and perceptions affect accessibility to SRHS by adolescent. (tick as appropriate)

	Disagree (1)	Neutral (2)	Agree (3)
20.Adolescents should have access to health care services.			
21.Do you prefer having the facility close to your community?			
22.There is readily available information on reproductive health.			
23.Cost of screening and treatment is expensive.			
24.Inadequate health care providers.			
25.Poor attitude of health care providers.			
26.Cultural beliefs and practices			
27.Does your parent's attitude and 28 perception on RHS affect accessibility?			
29.Does your poor self-confidence or shyness affect your visit to AFHS.			

FACTORS INFLUENCING UTILIZATION OF REPRODUCTIVE HEALTH SERVICE.

30.Have you used the adolescent friendly health center in the last two years	1. Yes 2. No	……… ………
32.If no, what are the reasons	Long waiting hours Attitude of healthcare worker Lack of knowledge Cost of treatment Distance to the facility	……… ……… ……… ………
33.Was there enough privacy and confidentiality during your visit?	1. yes 2. No	……… ………
34.Did the health workers treat you in a welcoming and friendly manner?	1Yes 2No	……… ………
35. Did you request for explanation to any issue concerning your health?	1Yes 2No	……… ………
36. If yes, were you satisfied with the explanation given?	1Yes 2No	……… ………
37. Was there enough privacy and confidentiality during you visit.	1Yes 2No	
38. Did the health workers treat you in a welcoming and friendly manner?	1Yes 2No	
39. Did you request for explanation to any issue concerning your health?	1.Yes 2.No	
40. If yes, were you satisfied with the explanation given?	1Yes 2No	
THANY YOU FOR YOUR CO-OPERATION AND TIME		

Name of interviewer: ……………………………………………………………

APPENDIX II: PARTICIPANT INFORMATION SHEET

Title of project: Factors influencing accessibility and utilization of adolescent reproductive health screening and services among adolescents in the Ga East Municipality.

Principal Investigator (P.I.): My Name is Ms. Cherry Amissah, a Master's students of School of Public Health, University of Ghana. You can contact me on the following address;

Tel: 0244088309

Email: cherryamissah@yahoo.com

Postal address: CT 10816, Cantonments - Accra

Study background and objective

Reproductive health challenges among adolescents still remains one of the greatest public health issues confronting Ghana today. Globally, it is estimated that 16 million births occur within the ages of 15 to 19 years which is approximately 11% of all births. 95% of which are prevailing in the low middle-income countries. A preventive measure is rather to introduce an adolescent who is sexually active to family planning methods to help reduce teenage pregnancies. Adolescent begin sexual activity without any knowledge on importance of protection against unwanted pregnancies and HIV. Sexually transmitted infection is also on the increase most especially HIV infections with about 1.5 million (85%) living in sub-Saharan Africa. All adolescents must be encouraged to go for voluntary screening and testing to know their status and if positive begin treatment or otherwise protect themselves using condoms to prevent been infective by others. Many policies have been implemented to help improve adolescent reproductive health but there is still evidence of poor patronage of health service and increase in reproductive health issues. Interestingly many of these challenges can be curtailed to the barest minimum if attention is given to primary health care in Ghana. Education motivation and advocacy should be increased by the media, health professionals, teachers, parents and many significant others on the community to intensify the importance of preventive health care and seeking treatment on time and at the right avenue to prevent complications. The essence of this study is to pave way in identifying factors influencing accessibility and utilization of reproductive screening and services among adolescent in Ga East Municipality. To achieve this, outlined below are the objectives for the study.

Objectives:

- To assess adolescent's knowledge on various reproductive health challenges faced by adolescents.
- To access adolescent's level of awareness on reproductive health screening and services.
- To investigate the factors that influence an adolescent accessing and utilizing a reproductive health service.

Participation

You will be required to give us an information with regards to questions in the questionnaire. The questions basically are on factors associated with accessibility and utilization of reproductive health screening and services among adolescents (10-19). If you meet the age requirement and agree to participate the questionnaire will be administered to you.

Potential Risk and Benefits

Risks

No risk is anticipated to occur to participants. The time of participant may be the only resource that may be taken.

Benefits

There may not be direct benefit to participants however, your responses together with responses from other participants will help address barriers which prevent adolescents from accessing reproductive health screening and services.

Confidentiality

For confidentiality, participant's names will not be taken in this study. Participants will be given privacy to go through the questionnaire. All information provided by participant will be kept confidentially from access by an external individual except for the researcher and his supervisor

Compensation

No form of compensation will be awarded to a participant for participating in the study.

Voluntary participation/withdrawal

Participation in the study is solely voluntary. The participant has the right to participate and withdraw from the study at any time without reason and coaxing by the researcher.

Outcome and Feedback: The information you provide will add to knowledge and propose some future interventions.

Feedback to participants: findings would be available at the school of public health and university of Ghana website.

Funding information: the principal investigator (Ms Cherry Amissah) is funding the whole research study.

Sharing of participant information and data: the principal investigator would own the data but a copy would be made available at the school of public heath library for future data referencing.

How to get information about the study?

For further information, /clarification, contact:

1. Name of (P.I): Ms. Cherry Amissah

   Tel: 0244088309

   Email: cherryamissah@yahoo.com

2. Name of (Principal Supervisor): Dr Emmanuel Asampong

   Tel: 0244278453

   Email: easampong@ug.edu.gh

3. Name (Administrator of the Ghana Health Service Review Ethics Committee): Mrs Hannah Frimpong

   Tel:0507041223 or 0243235225

APPENDIX III: CONSENT FORM FOR ADOLESCENT (18-19) YEARS

STUDY TITLE: FACTORS INFLUENCING ACCESSIBILITY AND UTILIZATION OF REPRODUCTIVE HEALTH CARE SERVICES AMONG ADOLESCENT IN THE GA EAST MUNICIPALITY

PARTICIPANTS STATEMENTS.

I acknowledge that I have read or have had the purpose and consent of the participants information sheet read and that all questions have been satisfactorily explained to me in a language I understand (English). I fully understand the contents and any penalty) even if I have signed this form.

I voluntarily agree to be part of this research.

Name or initials of the Participants………………………….. ID code ………………….

Participant signature……………………………OR Thumb Prints…………………………

Date…………………………………………………….

INVESTIGATORS STATEMENT AND SIGNATURE

I certify that the participants has been given ample time to read and learn about the study. All questions and clarifications raised by the participants have been addressed.

Researchers name……………………..

Signature……………………………..

Date………………………………….

APPENDIX IV: ASSENT FORM FOR ADOLESCENT (10-17) YEARS

STUDY TITLE: FACTORS INFLUENCING ACCESSIBILITY AND UTILIZATION OF REPRODUCTIVE HEALTH CARE SERVICES AMONG ADOLESCENT IN THE GA EAST MUNICIPALITY

PARTICIPANTS STATEMENTS.

I acknowledge that I have read or have had the purpose and consent of the participants information sheet read and that all questions have been satisfactorily explained to me in a language I understand (English). I fully understand the contents and any penalty) even if I have signed this form.

I voluntarily agree to be part of this research.

Name or initials of the Participants………………………….. ID code ………………….

Participant signature……………………………OR Thumb Prints…………………………

Date…………………………………………………….

INVESTIGATORS STATEMENT AND SIGNATURE

I certify that the participants has been given ample time to read and learn about the study. All questions and clarifications raised by the participants have been addressed.

Researchers name……………………..

Signature……………………………..

Date………………………………….

APPENDIX V: PTA CONSENT FORM

If you agree that your child should take part in the study, please sign or thumb print the consent form. I have read the information on the sheet/information on the sheet has been read to me. I have been informed that my child will be asked some few questions about accessibility and utilization of reproductive health care services for adolescents.

I understand that my child has the right to withdraw from the study anytime he or she wishes. I have had the opportunity to ask questions about the study and any question that I have asked has been answered to my satisfaction. Voluntarily agreed that my child should take part in the study.

Consent

I ____ (parent/guardian) declare that the purpose, procedure, benefits and risk involved in participating in this study has been explained fully to my satisfaction. I therefore agreed willingly to participate in the study.

Signature/Thumbprint of parent

____

Name of Principal Investigator

____

Signature

____

If participant cannot read and or understand the form themselves, a witness must sign here:

____

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

I certify that I have explained the information (the nature, potential benefits and possible risk) on the sheet to the parent________________________ and that he/she understood what I said and has agreed that the child should take part in the study.

Name of the person who obtained the consent.

____

Signature of person who obtained consent.

____

Date

____

APPENDIX VI: ETHICAL CLEARANCE

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

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

Research & Development Division
Ghana Health Service
P. O. Box MB 190
Accra
Tel: +233-302-681109
Fax + 233-302-685424
Email: ghserc@gmail.com
10th May, 2019

MyRef. GHS/RDD/ERC/Admin/App 19/178
Your Ref. No.

Cherry Amissah
University of Ghana
School Of Public Health

The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation of your Study Protocol.

GHS-ERC Number	**GHS-ERC 064/03/19**
Project Title	Factors Influencing Accessibility and Utilization of Reproductive Health Care Services among Adolescent in Ga East Municipality
Approval Date	10th May, 2019
Expiry Date	9th May, 2020
GHS-ERC Decision	**Approved**

This approval requires the following from the Principal Investigator

- Submission of yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report after completion of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.
- Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and after implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol

SIGNED...

DR. CYNTHIA BANNERMAN
(GHS-ERC CHAIRPERSON)

Cc: The Director, Research & Development Division, Ghana Health Service, Accra

APPENDIX VII: APPROVAL LETTERS

Ashongman M/A '1' Basic School
Post Office Box Ak 8
Ashongman – Abokobi
Accra
11th June, 2019.

Miss Cherry Amissah
University Of Ghana
School of Public health

CONSENT ON BEHALF OF RESPONDENT

I write to inform you that the SMC and PTA executives discussed the research topic **"FACTORS INFLUENCING ACCESSIBILTY AND ULTILIZATION OF REPRODUCTIVE HEALTH SERVICES IN GA EAST MUNICIPALITY** at our PTA meeting and parents have granted permission to carry-out the study.

Christiana Osei
christiana osei ....

ASHONGMAN MA '1'
BASIC SCHOOL
P. O. BOX AK 8, ABOKOBI

School Management Committee Chairperson
(SMC)

KWABENYA COMMUNITY
SENIOR HIGH SCHOOL
P.O.BOX WY 2770, KWABENYA ACCRA.

KCSHS/22/vol.1/005
Your Ref.................
Our Ref.................

11^TH^ JUNE, 2019

MISS. CHERRY AMISSAH
UNIVERSITY OF GHANA
SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF SOCIAL AND BEHAVIOURAL SCIENCE

RE: LETTER OF INTRODUCTION

I am glad to inform you that consent has been given on behalf of parents of adolescent below 18 years who are students of this institution to participate in your study to enable you fulfill the partial requirement for your Master Of Public Health program.

You are to abide by all instructions given you.

....
ERNEST KOTEI ANTONIO
P.T.A CHAIRMAN

Bankers: ECOBANK, Atomic Down Branch [redacted]