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UTILISATION OF YOUTH-FRIENDLY HEALTH SERVICES AMONG ADOLESCENTS IN THE YILO KROBO MUNICIPALITY

BY

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DECLARATION

I, Cornelius Teye Ehiawey declare that this thesis is the product of my original independent research conducted in the Yilo Krobo Municipality under the supervision of Dr Emmanuel Asampong.

I affirm that this dissertation either in whole or in part has not been presented elsewhere for another degree. All references made to other researchers' work are duly acknowledged.

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DEDICATION

This work is dedicated to my father, Abraham Kofi Ehiawey and my mother Beatrice Akorkor Ehiawey for supporting my education up to this level. My brother, James Tetteh-Boawolor and my Sisters Zipporah and Dorcas are also not left out.

My final dedication goes to my wonderful friends Nathaniel Larbi-Andah and William Boakye.

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ABSTRACT

Introduction: Adolescents aged between 10 to 19 years form about 1.4 billion of the world population. In Ghana, adolescents constitute about a quarter of the total population. The developmental changes which occur during this period makes them susceptible to numerous health challenges.

In all countries of the world, most boys and girls are reaching puberty earlier than ever; this leads most of them to start sex-related activities at a very young age. This has led to increases in the risk of vulnerability to many venereal diseases, such as syphilis, gonorrhea, HIV and syphilis and many unwanted pregnancies with its attendant matters such as unsafe abortion. Majority of Ghanaian adolescents underutilize Reproductive Health (RH) services principally because of the stigmatization of adolescents who engage in sexual activities.

Aim: This study looked at the utilization of SRH services among adolescents aged 10-19 years in the Yilo Krobo Municipality.

Methods: The study was a cross-sectional community-based design using structured questionnaire. The study was guided by the Behavioural Model of Health Service Utilization to explore the various variables associated with the usage of youth-friendly health services by adolescents. A multistage sampling technique was deployed to sample 401 adolescents aged 10 to 19 from both first and second cycle schools in the municipality. Data was analyzed using SPSS version 22. A P-value of 0.05 was used to determine statistical significance.

Result: The study discovered that the usage of Youth-friendly health services among adolescents in the Yilo Krobo Municipality is approximately 21.4% and about 47.7% went there for general counselling and health information service. The study also found out that about 70.9% respondents

were not comfortable with gender of service providers. About 93.6% of participants stated that they have had sex in the last twelve months and 78.1% currently have sexual partners.

Friends and peers constituted the major source of sexual and reproductive health information as well as youth-friendly health services.

The high cost of service is major hindrance to utilisation of youth-friendly health service. Additionally, reasons noted for low utilisation of these services were absence of privacy and confidentiality, poor attitude of healthcare professionals, inconvenient working hours of the facilities and perceptions of adults about the adolescents.

Conclusion: The utilisation of youth-friendly health service facilities among adolescents in the study area is very low. Sexual activities are key determinants of utilization of SRH services. Redesigning and restructuring of the healthcare delivery system to be more receptive to the current needs of the adolescents and finally the need for multi-sectorial intervention to eradicate stigma and encourage adolescents to utilize youth-friendly health services.

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LIST OF ABBREVIATIONS

AHSPS	Adolescent Health Service Policy and Strategy
AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-Retroviral Therapy
ASRH	Adolescent Sexual and Reproductive Health
CSE	Comprehensive Sexuality Education
CSOs	Civil Society Organizations
DHS	Demographic and Health Survey
ECOWAS	Economic Community of West African States
ERC	Ethical Review Committee
FP	Family Planning
GDHS	Ghana Demographic and Health Survey
GHS	Ghana Health Service
GMHS	Ghana Maternal Health Survey
GSS	Ghana Statistical Service
HIV	Human Immunodeficiency Virus
LMICs	Low and Middle-Income Countries
MOH	Ministry of Health

NGOs	Non-Government Organizations
SHEP	School Health Education Program
SRH	Sexual and Reproductive Health
SRHS	Sexual and Reproductive Health Services
STI	Sexually Transmitted Infection
SHEP	School Health Education Programme
WAHO	West African Health Organization
WHO	World Health Organization

LIST OF OPERATIONAL DEFINITIONS

1. Adolescent-Refers to young people aged 10-19years.

2. Utilization- Using any of these SRHS:

- Family planning / counselling services
- comprehensive abortion care services for adolescents
- Information on SRH
- Pregnancy Testing
- ANC Services for adolescents
- STIs Treatment and Management
- STI and HIV Testing and Counselling
- General Counselling and Health information

3. Knowledge about SRH- Defined as knowing topics such as menstrual hygiene, sexually transmitted infections, family planning, pregnancy testing, HIV counselling and testing, unsafe abortions, and ante natal and post-natal services

4. Risky behaviours- Engaging in one or more of the following activities:

• Having two or more sexual partners

• Having sex when drunk or any other substances that can impair good judgement

• Non-usage of condom during sex

• Not using contraception

CHAPTER ONE

INTRODUCTION

1.1 Background

Adolescents are individuals aged between 10 and 19years (WHO, 2016). Adolescence is a transition period from childhood to adulthood marked by rapid mental, social, physiological, psychological maturity. These developments have the tendency of driving some adolescents into some unhealthy lifestyle such as substance abuse, early sex debut, which increases their exposure to the risk of contracting venereal diseases and unwanted pregnancies with its concomitant issues such as death resulting from unsafe abortion.

There is an estimated 1.7 billion adolescents in the world while they constitute about one third of the population in many developing countries, where girls under the age of 16 give birth to approximately 2·5 million annually (Owolabi et al., 2017).

Even though, adolescents are normally seen as a group without so much health challenges; there is still substantial diseases, ailments and death among that section of the population. Due to unhealthy lifestyle, adolescents are contributing significantly to the global burden of disease. It is projected that more than one million of them died from largely avoidable and curable conditions (World Health Organization, 2016).

It is estimated that more than 60% of most early deaths among the adult's population are largely as a result of behaviours started at the adolescent stage (McIntyre, 2002). This implies that most of the behaviours related to health and situations which come up in course of this period have far reaching consequences for both current and future health status. Some of these behaviours include inadequate physical exercises, poor eating habits and substance abuse, unhealthy sexual activities

and conditions such as nutritional deficiencies, and various forms of injuries which lead to the main causes of ill health and death currently and the future.

In many third world countries, pregnant teenage girls have a higher possibility of so many sicknesses such as eclampsia than the matured women (Gronvik & Fossgard, 2018). Those who are not able to abort the pregnancy, endure serious societal ostracization which may lead most of them to even drop out of school, and others may even attempt suicide. Some parents because of the embarrassment of the pregnant adolescents drive them out of their homes.

Globally, it is projected that approximately 17 million teenage girls between 15-19 years deliver annually, which is roughly 11% of all live births globally. (Morris & Rushwan, 2015) Childbearing-related complications are the principal cause of the untimely demise of many adolescent girls.

Again, the researchers of this study found out that more than ninety percent (90%) of this happens in developing nations. Teenage pregnancy is a major problem in most Low and Middle-Income Countries (LMICs), with about ten percent of adolescent girls becoming mothers by age 16. The highest cases are in Sub-Saharan Africa, and Central and south-east Asia.

Maternal deaths in Sub-Saharan Africa are the second highest globally and also the region with the highest cases of teenage pregnancy globally (Radovich et al., 2018). The utilization of contraception was seven percent (7%) between 1998 and 2011 among adolescents in this region which is the lowest in the world (Owolabi et al., 2017). Again, this same study predicted that Central and West Africa adolescents will have a higher percentage of adolescents who are married (28%) in sub-Saharan Africa by 2030.

So in order to meet the health needs of adolescents and young people, the United Nations Organization and other international bodies enacted the Rights of the Child, 1990 under the United Nations Convention which states that persons aged 10-18 years have the right to information and healthcare services, to mature and develop their abilities.

Additionally, the 1994 International Conference on Population and Development (ICPD) Program of Action directed that the Sexual and Reproductive Health needs of Adolescents (10-19 years) and young people within the ages of 10-24 years should be met. This conference which took in Cairo, Egypt, recognized adolescent-friendly reproductive health services (AFRHS) as an appropriate and effective strategy to address the sexual and reproductive health (SRH) needs of adolescents (John Cleland, 2016). Ensuring universal access to quality services, free of discrimination, coercion, or violence, has been a core aim of the SRHR community since 1994 and is seen as an essential aspect of reproductive rights (Phyu et al, 2012). Youth-friendly service delivery is about providing services based on a comprehensive understanding of what young people in a particular society want, rather than being based only on what providers think they need. It is also based on an understanding of, and respect for, the realities of young people's diverse sexual and reproductive lives. An important part of youth-friendly service provision, therefore, is consciousness among the providers of the problems that young people face in accessing sexual and reproductive health services. For example, inconvenient hours, legal and policy hurdles, concerns about confidentiality, fear of discrimination (in particular among sexually active girls), being treated with disrespect and high costs are among the factors that can inhibit young people's ability to access services (UNFPA, 2016).

Globally, sexual and reproductive health services for the youth have gained the interest of researchers and health policy makers (WHO, 2013; Sawyer, Proimos, & Towns, 2010).

The World Health Organization (2013) discovered that adequate and friendly reproductive health services can increase young people's use of services contingent on the fact that service providers are well trained to ensure the health facilities are youth-friendly, and create demand and community backing through projects in the community, a decision based on findings of data analysis overtime and expert advice.

Every country which has the objective of having healthy citizens must endeavour to put in resources to create very excellent preventive and treatment policies and strategies which support the age-related needs such as adolescent reproductive health (Denno et al., 2015). Reproductive health services is therefore defined as the constellation of methods, and techniques that contribute to reproductive health and well-being by preventing and solving sexual health problems. It boosts psychological well-being and reduces mortality rate due to early disease detection (Kennedy Bulu, Harris, Humphreys, Malverus, & Gray, 2010; Ralph & Brindis, 2010).

Positive attitude towards the use of health services will increase uptake of services and achievement of health sustainable development goals 3 subsection 7 which states that by 2030, every country must ensure universal access to sexual and reproductive healthcare services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

In line with the SDGs, the Strategic Objective two(2) of the Africa Health Strategy 2016-2030 states that the African Union and all its member countries want to end preventable maternal, new born and child deaths and ensure equitable access to comprehensive, integrated sexual, reproductive, maternal, neonatal, child and adolescent services, including voluntary family planning.

The West African Health Organization(WAHO) which is an agency under the economic community of west African states(ECOWAS) with the mandate of formulating health policies and building capacities of member states has maternal, child and adolescent health as one of its five thematic areas. These are proofs that health challenges of the youth have caught the attention of policy makers and all stakeholders.

As a signatory to all these international conventions and agreements, Ghana has designed and implemented several interventions and programs such as the establishment of the National Adolescent Health and Development Programme (ADHD) in 1996, this was later followed by the development of a seven-year (2009-2015) strategic plan. The strategy sought to provide multi-sectoral support to every young person living in Ghana with information and services that will lead to the adoption of healthy lifestyle physically, psychologically and socially. This was to be achieved through the provision of age and sex appropriate information and counselling, comprehensive health services complemented by self-care, livelihood and leadership skills training and empowerment. Currently, the programme is implementing the new Adolescent Health Service Policy and Strategy (2016-2020) which was informed by the findings from the evaluation of the first strategy (ADHD, 2009, 2016). The main objective of the National Adolescent Health and Development Programme (ADHD) is to contribute to the improvement of adolescents and young people's health status through the implementation of realistic interventions that aim to bring appropriate solutions to their major health problems. This is done through the provision of Adolescent and Youth-Friendly Health Services (AYFHS).

The following standards guides the delivery of AYFHS in Ghana (ADHD, 2010, 2016);

- Adolescents and young people can obtain health information and counselling relevant to their needs, circumstances and stage of development when seeking health care at various levels of health service delivery

- Health service providers and support staff have the required knowledge, skills and a positive attitude to provide adolescent and youth-friendly health services effectively at all health service delivery points

- Health facilities provide the specified package of health services that are accessible and acceptable to adolescents and young people in an appropriate environment and in a friendly manner

- Promoting partnership among adolescents and young people, health institutions and communities in the provision and utilisation of AYFHS.

The minimum package of services delivered at the AYFHS facility includes the following (ADHD, 2010);

- General Counselling and Health information

- Information and counselling on sexual and reproductive health issues

- Family planning and counselling services (including condom and emergency contraceptives)

- Pregnancy testing pregnancy

- STI / HIV Testing and Counselling

- STI Treatment and Counselling (where applicable)

- Antenatal care (ANC), delivery, Postnatal care (PNC) (where applicable)
- Comprehensive Abortion Care Services
- Appropriate referral linkage between facilities at different levels and other services.

The government through the ministry of health has carried out many studies to identify the various challenges confronting adolescents and map-out strategies to address them (GDHS, 2014). The Ministry of Health in partnership with Ghana Health Service has carried out a lot of programs such as School Health Education and established adolescent-friendly centres where health care providers are given the needed resources and competency training to help tackle the problems faced by teenagers in the country.

These programs and services are intended to cater for the peculiar challenges of teenagers, which are tailored to be effective, appropriate, and accessible. Despite the fact that such services are available locally, there are still high percentage of adolescents experiencing many SRH problems.

This work sought to examine the uptake of YFHS among Adolescents in the study area. To explore the factors which influence and barriers which affect the utilization of these health services.

1.2 Problem Statement

Adolescents are generally thought to be healthy, yet many adolescents do die prematurely. An estimated 1.7 million young men and women between ages of 10 and 19 lose their lives to accidents, violence, pregnancy-related complications and other illnesses that are either preventable or treatable (Tegegn, Yazachew, & Gelaw, 2008).

Evidence abounds that adolescent experiences very critical and life defining events, namely; first sexual intercourse, first marriage and parenthood (Akter et al, 2012).

The World Health Organization (WHO) estimates that 70% of premature deaths among adults are largely due to behaviours initiated during adolescence. Each day, over 6,500 young people aged 10 to 24 become infected with HIV (World Health Organization, 2001).

Most young people are exposed to serious risks before they get enough information, skills and experience to avoid wrong choices or make an informed choice (WHO, 2013). Young people aged 15-24 account for 45% of HIV new infections worldwide (WHO, 2010). About 19-20 million abortions are performed annually and about 97 % occur in developed countries. Abortion complications account for 13% of maternal mortality worldwide (Tripney et al., 2013).

WHO estimates indicate that STI rates are high in SSA with 69 million new cases per year in a population of 269 million people aged 15-49 (Ngwenya, 2016). Adolescent girls and young women aged 15-24 years are at particularly high risk of HIV infection. They account for 20% of new HIV infections globally in 2015; resulting from harmful gender norms and inequalities, insufficient access to education, SRH services, poverty, food insecurity and violence (Pustil, 2016). Female adolescents are unduly disadvantaged in terms of the risks of unintended pregnancies that are associated with poor outcomes such as miscarriages stillbirths, unsafe abortion and other complications that might result in infant or maternal death (Nyarko, 2015). Girls under 18 are two to five times more likely to die in childbirth compared to women in their twenties; their children are also more likely to die during infancy (World Health Organization, 2001).

Each year, it is projected that about 300 million cases of sexually transmitted infections (STI) are documented with the adolescents aged 15-19 years with the second highest rates (Radovich et al., 2018).

Another very disturbing phenomenon is that teenagers aged 15-19 years form about 70 % of all persons who are HIV positive (Radovich et al., 2018). A projected 8,170 of youth within the ages of 13-24 years have tested positive for HIV in the United States, unfortunately staggering 51% do not know their HIV status (Marcell et al., 2018)

About 11% of childbirths globally have been recorded among young women below age 20 as their mothers and this amount to 23% of the global burden of disease with regards to child birth. (WHO, 2018).

Statistics indicate that about eighty-seven percent (87%) of over the 1.1 billion youngsters are found in third world nations where accessibility to SRH services have not been fully achieved, and they experience a greater level of need for SRH services which are not readily available and increased weight of unwanted pregnancies and huge exposure to contracting venereal diseases than their age mates in the advanced countries (Gottschalk & Ortayli, 2014). Around 14 million of adolescents give birth each year globally and 90% of these occur in developing countries (UNFPA, 2011).

The downward trend in age at menarche from 15.5 years (Aryeetey et al, 2011) to an average of 12– 13 years in most developing countries (Dixon-Mueller, 2011) also means an increase in the interval between menarche and marriage. Reproductive health issues are a challenge globally with a birth rate of about 44 per every 1000 teenage girls within the age bracket of 15-19 years (Clark et al., 2019).

The increased level of reproductive health related challenges among the younger generation in many sub-Saharan African Countries is worrying. This calls for comprehensive but timely response to the SRH problems of these youths in order to reduce deaths among the teenage mothers. (Odo, et al, 2018)

Adolescent constitute 29.3% of the population of Ghana and the projected HIV prevalence among this cohort has moved to 1.8%. from 1.2%. Another very disturbing occurrence is that about 9% of adolescent boys and 11% of girls are sexually active. Ghana has a teenage pregnancy prevalence rate of about 12% of girls mostly between 15-19 years who are either mothers or expectant (GSS/GHS/ICF Macro, 2018).

According to the Ghana National Population Council, the age at first marriage was 18.3 years for females and around 25 years for males in 1988, but this age has increased to around 21.4 years for females living in urban areas and 20.9 years for their counterparts in rural areas. For males, it increased to 26.1 years (urban residents) and 24.9 years for rural dwellers (GSS, 2008). Adolescents' knowledge and access to reproductive health services is important for their physical and psychosocial wellbeing. It has been found in many studies that the lack of knowledge about the consequences of unprotected premarital sex among adolescent females predisposed them to unwanted pregnancies, unsafe abortion and its complications, and sexually transmitted infections (Okereke, 2010).

According to the 2014 Ghana Demographic and Health Survey (GDHS), about 14% of females aged 15–19 years had begun child bearing. Of these 14%; about 11% have had a life births and 3% were pregnant at the time of the survey (GSS/GHS/ICF Macro, 2014). Abstinence, use of

condom, use of contraceptives, decision to keep a pregnancy, use of safe abortions services are some of the choices and reproductive health decisions adolescents make (UN Millennium Project Report, 2006).

However, the SRH needs and problems of adolescents have not received the needed priority in many developing countries including Ghana. Although, youth focused healthcare has been recognized as a very important means of enhancing the accessibility and uptake of SRH services by adolescents but it seems not to be achieving the set objective (GHS, 2017)

Empirical documentation shows that the use of reproductive health services by adolescents is still low (Schriver, Meagley, Norris, Geary, & Stein, 2014).

Adolescents' sexual and reproductive healthcare (SRH) needs have been prioritized globally, and they have the rights to access and utilize SRH services for their needs. However, adolescents under-utilize SRH services, especially in sub-Saharan Africa. Many factors play a role in the under-utilization of SRH services by adolescents, such as the attitude and behaviour of healthcare workers. (Jonas et al, 2018).

Even though Adolescents Sexual and Reproductive Health centres have been operating for about two decades in Ghana yet its impact is minimal as the problems enumerated earlier still affect that cohort. Several countries including Ghana were implored to institute measures to ameliorate the situation (UNFPA, 2004). Therefore, adolescent-friendly reproductive health services and comprehensive abortion care were instituted in Ghana to increase access to reproductive health and safe abortion services. This notwithstanding, many adolescents still encounter significant obstacles in accessing sexual and reproductive health services (Global Forum for Health Research, 2005). Knowledge on reproductive health services is essential to enable them make informed

choices. The type of choices made by these young adults could either impact positively or negatively on their lives, their families and the society at large (UNFPA., 2005).

Various political, economic, and sociocultural factors restrict the delivery of information and services, healthcare workers often act as barriers to care by failing to provide young people with supportive, non-judgemental, youth responsive services, (Morris & Rushwan, 2015).

According to Owusu-Addo et al (2016) there are many available SRH services yet not accessible to majority of the Ghanaian adolescents because of barriers such as lack of awareness, cost of services and negative attitudes of service providers.

Findings in Ghana are similar to those regionally. Ghanaian adolescents still avoid SRH services, particularly due to the stigma around premarital sex, while over 100,000 adolescents become pregnant annually (Aninanya, Debpuur, Awine, Williams, Hodgson, & Howard, 2015).

According to the WHO in 2012, the following accounted for the low use of sexual and reproductive services by adolescents; feeling that such services are for adults or married people, strict cultural norms against the use of reproductive services by adolescents and lack of privacy (WHO, 2012).

Hence, this study was carried out to explore the utilization of YFHS facilities by the adolescents in the Yilo Krobo Municipality.

1.3 Conceptual Framework

Many scholars have designed several explanatory frameworks to explain the determinants of health care utilization and one of them is the Behavioural Model of Health Services Use designed by Ronald M. Andersen. (Gohl et al, 2012).

Health care service usage is the stage in health care structure where the concerns or problems of the patients meet the knowledge, skills and expertise of health professionals. It is an accepted fact that apart from the factors related to needs, health service utilization is also motivated by supply.

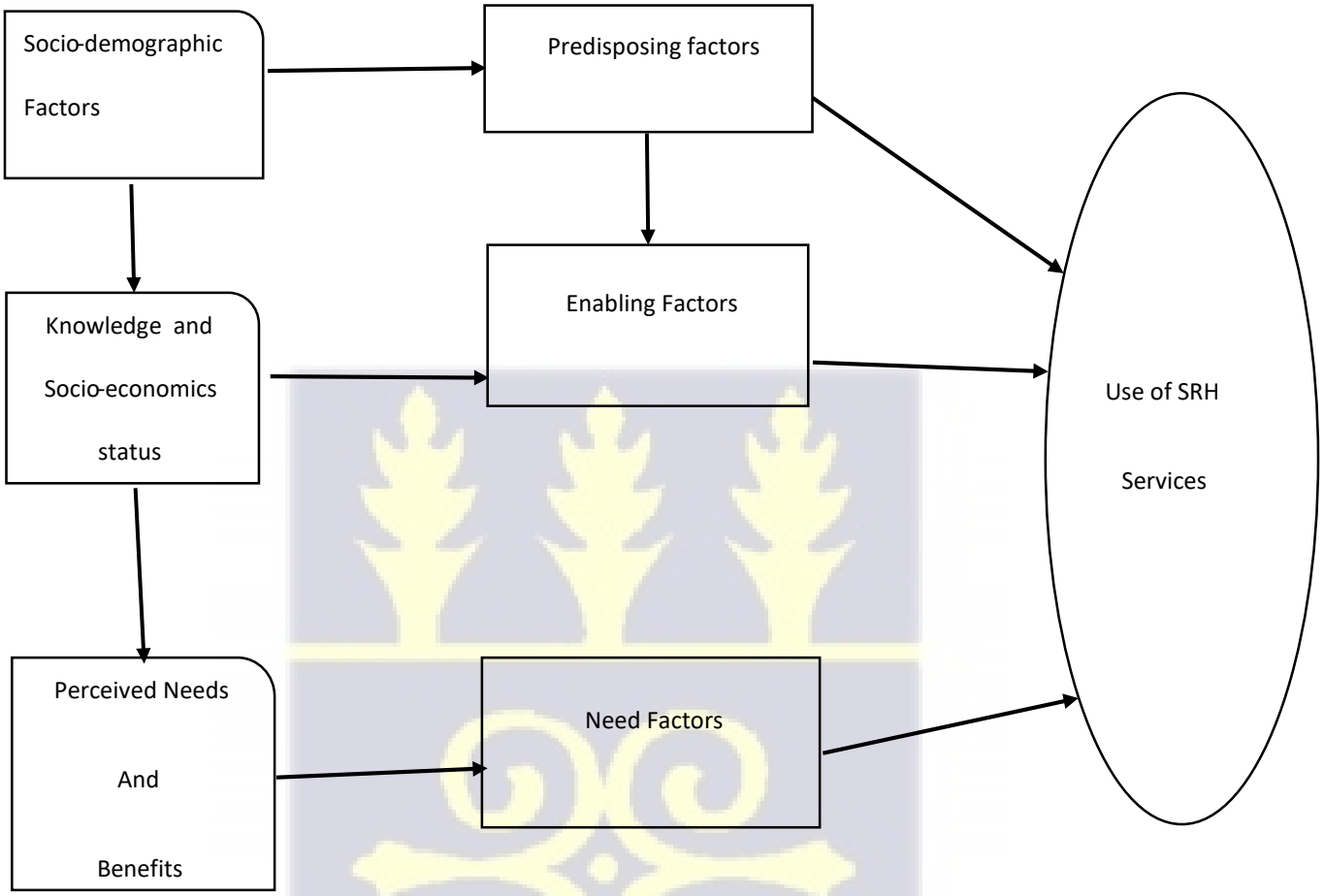

Figure 1.1: The framework was adapted from Andersen and Newman framework of Health Services Utilization

1.3.1 Description of Framework

This study adopted the Behavioural Model of Health Service Utilization by Andersen & Newman, (2005) to explore the various variables associated with the usage of youth-friendly health services by adolescents in the Yilo Krobo Municipality.

The three classifications of factors which affect the usage of services are predisposing factors, enabling factors and need factors

Predisposing factors are socio-demographic characteristics of a person (age, gender, religion, ethnicity, and level of education) which affect the usage of services. These influences define the mindset of teenagers since they shape their orientation (Addo, 2015). Several Studies have recognized higher learning as a factor which influences high utilization of SRH services. The religious and ethnic backgrounds affect greatly the views and opinions of individuals and consequently influence their choices about RHS utilization (Bwalya, 2018). Age is an important variable that has an impact on adolescents. Older adolescents are matured and as a result they are in a position to make decisions on whether to go to the health facilities or otherwise (Khangelani et al., 2019).

Enabling factors are elements such as understanding, socio-economic status and access to healthcare services. These factors are also influenced by the prevailing factors. For instance, level of education has an effect on the know-how of a person. The adolescents' level of knowledge rises as they go up academically (Oluyemi & Yinusa, 2015). Adolescents who are schooling are probably more willing to make use of SRH services than out-school ones. Adolescents from poverty-stricken backgrounds are in all probability might start sex earlier in their lives than others

and therefore liable to many dangers such as contracting STIs and unwanted pregnancies. (Stephenson et al, 2014)

Need factors are the perception of people about general health conditions and how they see their conditions to be either severe enough to seek professional medical care or mild to be ignored. The other aspect is the expected benefits of seeking healthcare. These may either act as facilitators or barriers to the utilization of health services by individuals. The adolescents' knowledge level will help them to take informed decisions about using SRH services when need be.

1.4 Justification

The growths which occur during this period of adolescence incline some adolescents to very harmful behaviours. Most teenagers are susceptible during this period of their lives as a result of the fast mental, emotional and physical development they experience which drives them to certain lifestyle patterns which open them up to risks such as pregnancy and STIs.

Exploring the use of SRH services will make available reliable and relevant data for revision of current policies and interventions and formulation of new policies.

Additionally, the findings of this study will help to design interventions intended to improve usage of SRH facilities by adolescents and also serve as the reasons for strategies aimed at improving the capabilities of health professionals in Adolescent Reproductive Health delivery.

Lastly, this study will make essential information available about the uptake of adolescent health services that will guide future researches especially in the Yilo Krobo area.

1.5 Research questions

1. What proportion of adolescents in the Yilo Krobo Municipality utilize Youth-Friendly Health Service Facilities?

2. What factors influence the utilization of Youth-Friendly Health Services?

3. What are the barriers that adolescents face in accessing Youth Friendly Health Services (YFHS) in the Yilo Krobo Municipality?

1.6 Objectives of study

1.6.1 General objective

To assess the utilization of Youth-Friendly Health Services among Adolescents in the Yilo Municipality

1.6.2 Specific objectives:

1. To determine the proportion of adolescents who utilize the Youth-Friendly Health Service Facilities.
2. To assess the factors that influence the utilization of Youth-Friendly Health Services among adolescents in the Yilo Municipality.
3. Identify the barriers adolescents face in accessing Youth-Friendly Health Services in the Yilo Municipality

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Adolescence as a period of change is marked by rapid mental, social, psychological maturity, which presents limitless opportunities yet fraught with numerous challenges. Adolescents can be useful agents for social transformation if their boundless energy, strengths and creativity is properly guided to contribute positively to society. They are the future generation of human resource and leaders for national development. The strength of the adolescents can be leveraged to drive national campaigns aimed at creating awareness about youth-related policies by deploying them as peer educators, advocates, and strategic partners.

This chapter reviews studies on adolescent reproductive health services, and factors affecting the utilization of reproductive health facilities.

2.1 Adolescence as a period of risk.

Adolescence is a stage of life that has with it great opportunities yet also associated with many risks. Most adolescents are attaining puberty earlier than the past, so there is a long lag between the period of sex debut and marriage. (Morris & Rushwan, 2015)

The danger with this is that, it contributes to unhealthy sexual behaviours which predisposes the adolescent to venereal diseases and unintended pregnancies. Unwanted pregnancies are associated with unsafe abortion which is usually due to social stigma (Nanegbe, 2016).

According to WHO estimates, more than 19 million girls within the age range of 13 to 19 years get pregnant yearly, and out of which about 11% of them are below 15 years of age, live in developing countries (WHO, 2018).

The phenomenon of pregnancy and its related issues are among the leading causes of maternal deaths among adolescent girls (Morris & Rushwan, 2015, Ghose & John, 2017). This is very prevalent among adolescents in LMICs (Nove, Matthews, Neal & Camacho, 2014). Children born by adolescent have higher risk of dying young in comparison to older mothers. (Nair et al., 2015) In Egypt, a study that compared sick babies born to adolescent mothers and older mothers, concluded that there was a 9% increased risk of teenage mothers delivering sick babies compared to 2.7% among older mothers (Mohamed & Mohamed El-Taher, 2012). The study further found that about a third (37.22%) of babies delivered by adolescent mothers were preterm compared to one-tenth (12%) among older mothers. This according to the study resulted from inadequate knowledge about reproductive health issues and low patronage of antenatal services leading to poor medical attention

2.1.1 Unsafe Abortions

Increased number of young people initiate sexual activities usually during their adolescent years. The result of engaging in sexual activity too early has its detrimental effects on the general wellbeing of the adolescents. One of the many complications is unsafe abortion resulting from attempt to terminate unwanted pregnancy. Yokoe, et al (2019) undertook study in India on unsafe abortion and the result was that education had a significant association with abortion as 48% of those who are uneducated have a higher probability to go for risky abortion compared to females with relatively higher levels of education. This is due to inadequate basic preventive methods such as sex education which lead to majority of the adolescents to choose very dangerous abortion methods like taking in of herbal concoctions and engaging the services of unqualified medical officers leading to many untimely deaths within the adolescent population. Another study carried out on Ghana's policy on abortion and services with respondents such as midwives, medical

officers and patients, reported that most of them (81%) lacked the knowledge of laws in Ghana on abortion and this created the situation in which many young people resort to illegitimate methods to abort pregnancy leading to several deaths (Mensah et al., 2019).

2.1.2 Drug abuse

A lot of adolescents are also experimenting with hard drugs and alcoholic substances which has the power to affect proper judgment and weakening their ability to make the right decisions under any situation.

It is a widely known fact that there is a close connection between alcohol intake and risky sexual behaviours (Ajuwon et al., 2019). This particular study also found that 25% of risky sexual behaviours are caused by alcohol consumption. The study further revealed that the lowering of restraint and sound judgement due to alcohol consumption might be the reason for this occurrence. Thus, young people who abuse drugs or consume alcohol are predisposed to the risk of casual and unprotected sex.

2.2 Sex debut and sexual activities

Many young people start sex at a time when they are not prepared for the consequences of the act thus exposure to several repercussions. Findings from a study in Kenya, stated that the commonest reason given by adolescents for initiating sex early is natural instinct (Marston, et al., 2014) & June, et al., 2019) which is the innate craving for sex pushes them into it. This evidently shows the inadequate and scanty information most adolescents have about their sexual feelings. A better appreciation of these issues will help them to know the essence of these yearnings and how to control them since there are dire consequences associated with starting sex at an early age. As Olukoya(2019) has revealed that sexual education greatly influences responsible and safe sexual behaviours. From a study carried out in South Africa, 40.8% of the respondents stated that they

did not use a condom during their first sexual encounter (Khangelani et al., 2019). This is as a result of the fact that many adolescents regularly involve in sex at a period that they are not prepared for the outcome of these activities and this increases the risk of STIs and unwanted pregnancies.

According to (Marston et al., 2014) more than half of all adolescents who started sexual activities did not use any protection at all. Besides, it was reported in a Kenyan study that young adolescents are negatively influenced by sexually active older ones. Additionally, the study indicated that young people who initiated sex early have a higher probability of having multiple partners thereby increasing the risk of getting STIs.

It is a well-known phenomenon that girls start sex early unlike boys (Bwalya, 2018). Most adolescent girls are usually lured by older men to engage in sex which is very rare for older women to do.

Another important observation from this study was that because sex is most of the time started by boys as a result most girls are not able to insist on using a condom. Most girls are coerced into sex through several means such as money inducements, gifts flattery, harassment, and threats by their male partners to go in for other persons (Moore et al.,2019). Studies have also shown that negative peer influence is a major contributory factor to the problem of early sex among adolescents (Okonta, 2019; Atwood et al., 2019). Poverty is also a key driver of early initiation of sex among girls. It is a common phenomenon among girls from poverty-stricken backgrounds to start sexual activities early (Stephenson et al., 2014).

Findings from a study in Liberia showed that most girls engaged in sex early because it was a means of way of getting money, which help them boost their socio-economic status (Atwood et al., 2019). The researchers indicated that the harsh economic conditions in the post-war country

put so much demands on the young girls thus their willingness to engage in transactional sex at a tender age. In this same study, it was discovered that most of their parents especially mothers supported their young girls to take part in such activities so that they can get money to support the family. This situation unfortunately exposes them to high risk of contracting several STIs because in most cases they tend to engage in unprotected sex since it is the men who decide the conditions of the agreements.

2.3 Teenage Pregnancy and Motherhood

Each year, it is estimated that, more than 19 million adolescent girls between 14 to 19 years get pregnant, out of which about 1.9 million are under the age of 15 and are from third world nations (WHO, 2018).

Teenage pregnancy has gradually become a problem globally because greater percentage of maternal deaths happen in global south countries and most especially among teenagers, within the age bracket of 15-19 years according to Nove et al, (2014). A study carried out in India that explored the problem of teenage pregnancy revealed that, out of a total of 1000 pregnant women surveyed, 62% were teenagers (Ghose & John, 2017). Pregnancy and child bearing poses significant risks to teenage girls.

Neonates born to teenage mothers have a higher risk of dying prematurely in comparison to those born to matured mothers (Ghose & John, 2017).

This is also supported by findings from a study in Egypt that compared unhealthy babies born to adolescent mothers who were classified as cases and those of the adult mothers as the control group, concluded there was less cases of 2.7% in adults' mothers and higher rate of 9% among the teenage mothers. Additionally, the control group recorded a preterm rate of 12%, while the teenage mothers were around 37%. This was largely due to inadequate knowledge, poor

attendance at antenatal care, and inability to take good care of themselves during pregnancy (Mohamed & Mohamed El-Taher, 2012).

2.4 Policy Response

The government of Ghana recognizes the need to prioritize the health of its adolescents as a signatory to the International Conference on Population and Development (ICPD) 1994. After the ICPD, 1994, the country set out to put in place measures to meet the health need of adolescents. The Ministry of Health developed the National Adolescent Health and Development Programme (ADHD) in 1996.

The main aim of the National Adolescent Health and Development Programme (ADHD) was to add to the enhancement of adolescents and young people's health by the means of implementation of very good interventions which seek to bring suitable solutions to their most pressing health problems. It is to be accomplished through the setting up of AYFHS facilities.

The next important milestone was the drafting of a seven-year (2009-2015) action plan. The aim of the plan of action was to present multi-sectoral framework and support to every young Ghanaian with information, knowledge and services that will culminate in embracing healthy lifestyle. This was to be accomplished through the provision of suitable information and counselling, all-inclusive healthcare services in addition to self-care, occupation and skills training and equipping for a meaningful life. Right now, the program is carrying out the new Adolescent Health Service Policy and Strategy (2016-2020) which was occasioned by the data from the consideration of the previous policy (ADHD, 2009, 2016).

However, various socio-economic, political, religious and cultural factors have restricted the effective delivery of these intervention, health professionals mostly act as obstacles by refusing to render care to young people without judgmental and unethical attitudes. (Morris & Rushwan,

2015). In the 2012 reports of the WHO, these contributed for the little usage of SRH services by teenage; having the perception that such interventions are for older people and married couple, certain stringent traditions, customs and rules against the uptake of reproductive health services by adolescents (WHO, 2012). Evidence from numerous studies prove, the uptake of SRH services by adolescent is not encouraging (Schriver, Meagley, Norris, Geary, & Stein, 2014).

2.5 Knowledge Level of Adolescents about SRH.

Knowledge of sexual and reproductive health issues among young people is very low and, many reports indicate the need for more accurate and relevant facts on venereal diseases and pregnancy (WHO, 2001). A good number of researches have been done to gather enough data about adolescents and their impression of the SRH and the associated services worldwide. A descriptive cross-sectional study conducted by (Napit et al., 2020) involving 417 adolescents in secondary school discovered that more than 60% of them have very good understanding of SRH. Additionally, participants reported media and friends being the main sources of SRH information. Estimates from the WHO (2019) show that more than 1.8 million adolescents are HIV positive worldwide. The youth aged 15 to 24 years account for more than 35% of the reported cases of HIV at health centres. As stated by UNICEF (2021) more than three million children are suffering from AIDS infection. Even though the overall cases of death caused by HIV has reduced by 30% in the last ten years, HIV related deaths among the adolescent cohort is on the ascendancy. In most African countries, 10 to 15 % of the youth aged 15 to 24 years are HIV positive. Within the adolescent population, some sections such as street and slum dwelling adolescents are in peril of contracting HIV (WHO, 2013). With these gloomy statistics, access to SRH services has been essential for adolescents and youth who are active sexually. Nonetheless, many reports show that majority of young people are not well-informed about venereal diseases and SRH services.

2.5.1 Sources of knowledge

Lack of relevant and accurate information from the authentic sources results in bad decisions by most adolescents concerning their reproductive health which can be injurious to them in the near future.

A research conducted in West Gonja municipality of Ghana on the reproductive health knowledge sources, the participants mentioned friends, teachers, guardians and the media as the main sources but majority depended on their peers for answers as they observed that many health practitioners were hostile and thus had difficulty relating well with them resulting in low patronage of the sexual and reproductive health services (Kyilleh, Tabong, & Konlaan, 2018).

The deployment of various media tools will help in bringing changes in norms, attitudes and behaviours. The involvement of several forms of communication is needed in eliminating hindrances or hurdles to service accessibility. The creation of awareness in the various communities is needed to demystify the norms and beliefs members of our society have about reproductive health and instead inspires people to access healthcare services (Abajobir & Seme, 2014).

Making use of social media for health communication in Africa drew the attention to the significance of deploying mobile app to send delicate information such as maternal records to pregnant women was very helpful to health workers to provide better care to their clients (Fayoyin, 2016).

2.5.2 Media, Internet and societal beliefs

The media, whether traditional or social significantly impacts the type and level of knowledge adolescents are exposed to. Adolescents are greatly influenced by the media through various

programs such as talk shows, mini-series, movies and other entertainments. Most adolescents make decisions whether to use existing SRH services or not based on the influence of media program (Helamo, Habtu, & Johannes, 2017).

In Ghana a lot of popular programs has been aired and some continue to run in the media, which aim at educating young people about the SRH services. Notable adolescent-centered programs include *"THINGS WE DO FOR LOVE*", *YOLO* and *SHUGA.* These programs tend to provide information on healthy sex choices, advocate delay in sex debut among adolescents, adoption of protective measures such as condom use and contraception.

Other major sources of knowledge about SRH includes Facebook, Instagram, YouTube, Zoom, Telegram, Microsoft Teams and Twitter (Michael, 2017).

Additionally, printed educational materials by multiple stakeholders in the health sectors including the government and Civil Society Organizations (CSOs) such as UNICEF, USAID and WHO provide very timely and useful information and education for young people.

Despite all these initiatives, there are growing concerns that attitudinal changes among the youth in Ghana about their sexuality is occurring at a slow pace.

According to Bankole et al (2019), adolescents are much aware of basic SRH issues such as fertile period in a woman's menstrual cycle and some contraceptive methods.

They further revealed that knowledge about pregnancy prevention is not satisfactory. This can partly be a contributory factor to the prevalence of unplanned pregnancies among adolescents.

It seems quite a number of young people are well informed about HIV but lack adequate knowledge about other STIs (Kemigisha et al., 2018). It may be the reason why they tend to fall prey to other STIs instead of HIV.

Findings from a Malaysian study revealed that girls are more knowledgeable about SRH than their male colleagues. Older adolescents are more knowledgeable than the younger one (Ibrahim et al, 2014). This is as a result of sexual maturity and their adventurous tendencies which motivate them to gather much information about sexual activity as possible than the younger ones.

2.5.3 Education

The educational level of adolescents influences the depth of knowledge since most school curricula usual covers adolescent health and wellbeing.

Adolescents in school are better informed than those who are not in school due to the quality of information available to them to make healthy choices such as accessing reproductive health services (Bam et al, 2015). It is a well-accepted fact that as one climbs the educational ladder, knowledge level increases which then tend to influence choices which includes health (Oluyemi & Yinusa, 2015). (Addo, 2016) also collaborated this fact when he identified higher education as a major determinant of utilization of SRH service.

Formal education plays an important role in the choices of adolescents which includes time for first sex and the adoption of safe sexual practices like use of condoms and contraceptives (Stephenson et al., 2014); Oluyemi & Yinusa, 2015).

These findings resonate with Bwalya (2018) who contends that decisions on utilization of SRH services is significantly influenced by the individual's level of education.

Other findings contradict the above findings by indicating that there was no marked difference in the level of appreciation of SRH issues among adolescents whether they are in school or not (Kyilleh et al., 2018). This is because they found out that none of the two groups was well informed about SRH and Youth Friendly Health Services. They argued that the poor healthcare worker

attitude towards adolescents was the reason for low patronage and not level of education. Due to these negative attitudes, most adolescents find it difficult to access SRH services. This deprives them of the relevant information and guidance when making decisions which affects their reproductive health. The result of this unfortunate situation is that adolescents may not get the accurate information needed to make sound decisions concerning their reproductive health and may be misled by peers who are usually not well-informed.

Although SRH knowledge is necessary it is not enough to influence the patronage of YFH Services (Bwalya, 2018). This may be the reason for the prevalence of unplanned pregnancies among adolescents.

2.6 Factors Influencing Youth-Friendly Health Service Utilization

There are considerable barriers that adolescents must grapple with in their bid to access quality YFHS. Among these obstacles are inadequate commitment on the part of government in prioritizing ASRH, the presence of restrictive laws on some SRH services such as abortion, socio-cultural barriers, and religious beliefs which create unfavourable environment for constructive engagements on ASRH coupled with negative attitudes about sexual activity among unmarried but sexually active adolescents (Morris & Rushwan, 2015).

Additionally, the youth face many impediments with regard to services availability, absence of integrated services and service acceptability. Some youth avoid these services because of providers' gender, some unethical behaviours by caregivers, endurance of shame and stigma when accessing care at the facilities.

Other factors that militate against access to services by adolescents includes economic barrier since they are not income-earners (Juárez et al., 2019); lack of geographical access since they live far

away from the health facilities (Aninanya et al, 2015) stigma occasioned by societal norms and values which form basis of the standard of acceptable behaviour (Salam et al., 2016).

Despite the popularly held notion that the most important element that influence adolescents is access to care, there are other very important variables such as friends, relatives, acquaintances and teachers (Morris & Rushwan, 2015).

In addition, factors like misinformation and wrong perception about the side effects of contraceptives, poor socio-economic status of adolescents since they are not economically empowered so unable to access family planning products that could protect them from the risk of pregnancy, also influence their decisions (Ghana Health Service, 2015).

Inadequate understanding of the full package of services available (Patton et al., 2016). Lack of confidentiality and privacy, societal stigma and poor provider attitude (Biddlecom et al., 2019) are the major drawback in attempts by adolescents to access SRH services.

The time spent at health facilities is a disincentive to adolescents accessing reproductive health services (Onokerhoraye & Dudu, 2017). Most of them are not motivated to visit the facilities just for education when they are healthy without any sickness.

Age is also an important factor that influences the decisions about the use of reproductive health services since as an individual grows desires and exposure to information increases (Ansha, Bosho, & Jaleta, 2017).

2.6.1 Rural-urban dichotomy

Several studies have revealed that adolescents living in cities and towns are better informed about reproductive health issues compared to their counterparts in deprived areas (Muhwezi et al., 2015). The internet provides a huge store of information unfortunately in most rural areas in Ghana access

is limited. This deprives individuals from these areas the opportunity to access quality information that could guide their choices.

Greater proportion of adolescents living in these rural settings are likely to experiment with sex early thereby making them vulnerable to the risk of pregnancy and STIs at very tender age.

Due to stigma, pregnant adolescents may resort to unsafe abortion and those infected may not be able to report to the nearest health facility for attention.

Additionally, most deprived areas lack basic health facilities like clinic and health centres unlike urban areas, adolescents living there have to travel long distances to access care. This is a huge disincentive to young person who may resort to untested herbal remedies. Cultural and religious barriers affect the enthusiasm of many adolescents to seek information about SRH. All the religions in the country teach abstinence before marriage without informing the youth about the physical and hormonal changes that happens in their bodies as they grow and how to deal with them. Sex is a very sensitive issue in most societies so people find it to discuss it with the youth, and this tend to affects the level of knowledge of adolescents who live where this is common (Bwalya, 2018).

2.6.2 Inadequate knowledge about Reproductive Health Services.

To improve the quality of preventive health care services, the individuals must be made to appreciate the importance of regular visitations to health facilities for purposes of screening and diagnosis of disease conditions. This reduces deterioration to chronic phase. Prioritizing adolescent health and well-being helps in improving academic progression since they are able to follow through with their education without hitches. To improve performance in schools, the standard of adolescent's life should be looked at. Dissemination of timely and relevant information on their health, location of facilities and services available must be key in all awareness creation

and advocacy efforts (Kyilleh et al., 2018). Most young people are not well informed about the need to avoid a risky sexual behaviour and the adoption of safe sexual practices in order to minimize the risk of unplanned pregnancies. Reproductive health issues are better discussed by parents with their wards, but regrettably, most guardians and parents are very uncomfortable in having a conversation on these matters as consider them too delicate. In some societies, it is even unheard of to try addressing issues relating to sex especially involving teenagers. Parents find it difficult engaging their wards on such prohibited subjects like sex, making it impossible to talk about using condom and contraceptives as a means of preventing both sexually transmitted disease and pregnancy is not considered (Denno et al., 2015).

Religious beliefs have adversely affected the use of ASRH services by adolescents as those who endeavor to utilize the services are seen as social deviants. A study in Northern Nigeria, which is a predominantly Muslim areas schools in Yobe state did not allowed questions to be asked on sexual activities (Adeokun et al., 2019).

2.6.3 Perception about quality of Service

The confidence people have in the knowledge, skill and competence of the health workers is very essential in the delivery of services at the youth health centres.

According to Jonas et al.,(2018) The capability of the healthcare providers was in doubt as most of them revealed that they lack sufficient SRH knowledge and skills to meet the health needs of the adolescents. These were the results the researchers gathered from a qualitative study carried out in Cape Town, South Africa.

A Swiss study on reproductive health care barriers also pointed out that most women felt uncomfortable as most health professionals were not conversant with their customs and traditions

for instance, Muslim women not willing to avail themselves for medical examination especially male health workers was a major obstacle to accessing healthcare.

Also, financial barriers on the cost of services rendered, language for communication and inadequate and accurate information concerning access to services.

The possibility of a health care service provider with requisite training in SRH to understand adolescent health issues and address their health needs accordingly is higher than someone with no or little training. A study in Nepal considering barriers and challenges adolescent face in their attempt to access AFHS, recognized the lack of expertise on the part of most health workers and wished they undergo special training in adolescent health so they can provide quality care to them (Giri, Shrestha, Uprety, & Sangroula, 2020).

People attending a health facility is determined to some extent by both positive or negative attitude and behavior of health care providers. A South African study on healthcare worker behaviours revealed that, adolescents who get pregnant do not attend ANC which is also related to failure to use any one of the numerous family planning methods. As revealed by Jonas et al., (2018), the refusal of the adolescents was attributable to the health workers who usually counsel adolescents to abstain from sex rather than use any contraceptives as they suppose that it would rather encourages immorality. This unfortunate situation was largely due to their cultural and religious beliefs and values.

A study done in Nigeria reported that adolescents are not willing go to the youth friendly centers because health workers were reluctant to provide them with any form of family planning method and 57.7% of them said it was a way of encouraging sexual promiscuity (Ahanonu,

2014). It is imperative to give adolescents the needed respect, and give them adequate support as this goes a long way to help them to believe in the healthcare system and thereby able to voice their problems or difficulties very well.

A study done to examine the accessibility of adolescent reproductive health service in a particular district in Ethiopia revealed that 58% of the respondents stated they had adequate time with service healthcare providers and enough time was available for consultations while (48%) pointed out that the assigned time for given care was inadequate and most of the healthcare personnel had an inappropriate attitude and behaviour (Tigistu Lejibo, sahilu, Muktar &Tilahun 2017)

2.7 Summary

The review covered literature from studies relating to adolescent sexual and reproductive health services. The literature reviewed was largely from Africa.

The inclusion of adolescents in the *Global Strategy for Every Child and Every Woman*, the *2016-2030 Sustainable Development Goals (SDG)* agenda prioritizes the adoption of health promoting interventions and strengthening of health systems which is very responsive to the needs of adolescents to aid healthy lifestyles and health-seeking behaviours among adolescents (WHO, 2015). For that reason, information on the structures of youth-friendly health services as defined by young people and their utilization is essential and will help to design policies and strategies to improve the health status of adolescents and to a greater extent attaining the SDG.

CHAPTER THREE

METHODS

3.0 Introduction

This chapter described the different methods adopted for this study. It gives details about where the study was carried out, the variables under consideration, how the study was designed or structured. The particular sampling procedures used, how the sample size was calculated and the data collection techniques and tools deployed.

3.1 Study Design

This study adopted a cross-sectional community-based study design. Cross-sectional study design is a type of observational study design in which the investigator measures the outcome and the exposure in the study participants at the same time. This design was chosen because it permits the researcher to examine and compare many different variables at the same time. We could, for instance look at age, gender, religion and educational level in relation to the utilization of youth-friendly health services. To explore the utilization of youth-friendly health services among adolescents within the ages of 10-19 years in the Yilo Krobo Municipality. The study employed quantitative methods to measure the variables under consideration.

3.2 Study Area

The study was conducted in the Yilo Krobo Municipality which is one of the twenty-six (26) districts and municipalities in the Eastern Region. It was set up in accordance with Legislative Instrument No. 1427 of 1988. It was formerly known as Kaoga District Council which was made up of Asuogyaman, Yilo Krobo and Manya Krobo Local Authorities. After sometime it was divided into three different administrative areas; Yilo Krobo, Manya Krobo and Asuogyaman. It

attained a Municipal status on the 6th of February, 2012 in line with the Legislative Instrument (L.I.) No.20512

The Municipality shares boundaries in the North and East with Upper and Lower Manya Krobo Districts respectively. In the South, there is the boundary with Akwapim North and Dangme West Districts. In the south-west, the Municipality shares boundaries with New Juaben and East Akim and lastly, there is the western boundary with the Fanteakwa District. The Municipality lies approximately between latitude 0^0.30'N and 6^0.00'N and between longitude 10^0.00'W and 0^0.30'W. The Municipality has a total estimated land size of about 805 square kilometres, amounting to about 4.2 percent of the total land area of the Eastern Region, Somanya which is the Municipal Capital is approximately 50 km from the capital city of Ghana.

The proportion of males and females in many occupations differ from one occupation to the other. For example, there are more males (50.7%) than females (33.6%) in area of the skilled forestry, agriculture and fishery work while there are many more females (35.4%) than males (17.2%) in the sales and services.

Those who are 12 years and above and have never married are 39.5 percent, while 28.6 percent are married with those widowed are 7.2 percent. The proportion of males with tertiary education who are married is (7.3%) is higher than that of females (2.8%). The proportion of uneducated males who are married is (8.2%) is far less than the proportion of females who are without formal education and married (18.2%). A very high proportion of the population in the age groups 12-14 years (95.7%) are not married. A high percentage cuts across all categories for persons who have attained only basic level of education for never married (71.0%).

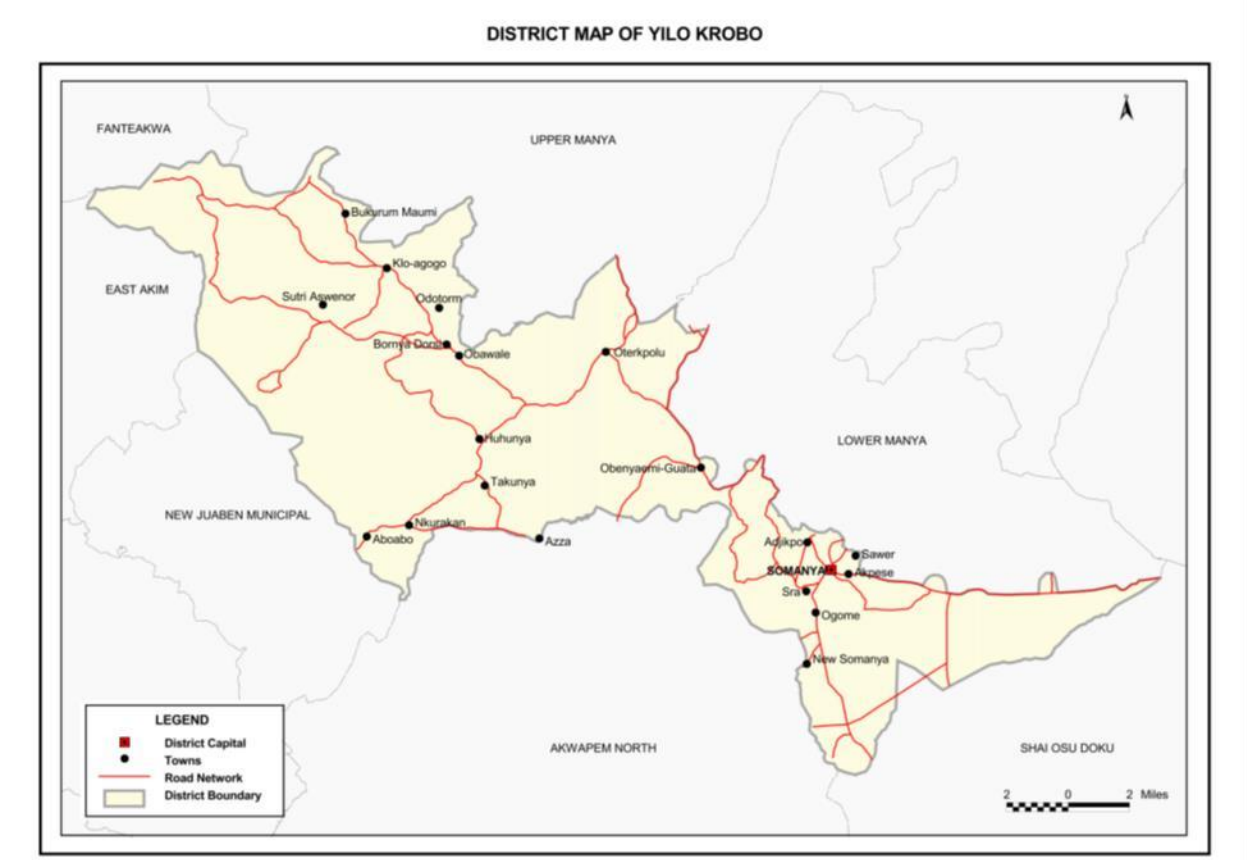

Figure 3.1 Source: Ghana Statistical Service, GIS (2014)

3.2.1 Socio-demographic Characteristics

The 2020 Population and Housing Census revealed that the number of people living in the Yilo Krobo Municipality is 122,705. Females form 51.4% and the males are 48.6%. representing 4.2 percent of the region's total population. Majority of this number 64,609 people representing (52.7%) reside in rural communities and 58,096 (47.3%) are urban dwellers.

There is the sex ratio of 93.2 in the municipality. The population of the municipal is youthful (47.4 %). Adolescents aged between 10-19 years make up 21.8% (26,797). About 94 percent (93.9%) of the population professed to be Christians. This figure is about 10 percent higher than

that of the Eastern Regional figure (84.5 %). This implies that nine out of every ten persons in Municipality are Christians.

The proportion of the population is engaged in skilled agricultural fishery and forestry is quite huge (41.9%). The next occupation with the largest number is service and sales (21.7%). The craft and its associated trade, is 18.1 % and lastly, 7.1 percent of the people are engaged as technicians, professionals and managers, and the occupation with the least number of people is clerical support, 0.9 percent.

3.2.2 Health Infrastructure and Healthcare Service

The Yilo Krobo Municipal Health Directorate is responsible for health services in the area.

The people access health services are through both private and public facilities. Family planning, maternal health, and sexual and reproductive health services are some of the services provided in these facilities. The municipality has a municipal hospital which is yet to be operationalized. When it is done it will serve as referral center for critical cases from the smaller facilities. However, the municipal can boast of the following facilities: 1 polyclinic, 2 health centres, 12 CHPS Compounds, 2 RCHs, 3 maternity homes and 3 private clinics and 5 big pharmacies to deliver healthcare to the populace.

3.3 Study Population

The study population included adolescents aged between of 10 to 19 years who are living in the Yilo Krobo Municipality

3.4 Inclusion Criteria

All adolescents who are within the age blank of 10-19 years and have been residing in the Yilo Krobo Municipality within the past Twelve (12) months before this study and are willing to take part in the study and have received consent from their parents or guardians and are able to speak any of these languages: Dangme, Twi or English were part of the study

3.5 Exclusion Criteria

The exclusion criteria were that any adolescent with hearing impairments was not selected. This is because of the difficult in communicating the objectives and purpose of the study to such individuals. Adolescents who are eligible but whose guardians did not consent were excluded.

3.6 Sample Size and Sampling Technique

Sampling is the process of selecting a section of a group of people with the intention of gathering very vital information from them (Khan, 2012). A multistage sampling technique was adopted in this study to select the basic schools and for the secondary schools they were selected using purposive sampling technique since there are only two in the municipality

3.6.1 Sample Size Estimation

Cochran (1977) developed a formula to calculate the size of a sample of a single population proportion, n = Z2P (1-p)/d2. Where; n= required sample size z= desired sample size p= the estimated proportion of adolescents aged between 10 to 19 years utilizing youth-friendly health services. Since the estimated proportion is not known, an assumption of 50% (0.5) was used with a margin of error, d= 5%.

Using the above formula, the estimated sample size was 384.

3.6.2 Sample Size Adjustment

Adjusting for a non-response rate of 10% gives, 0.1 * 384 = 38.4

Therefore, the desired sample size for the study was 38+384= 422. However, data on 401 respondents was used for the final analysis because of incomplete filling of questionnaires by some participants which would have affected quality of the final analysis.

3.6.3 Sampling Method

A multistage sampling technique was adopted in this study. First and foremost, list of all first and second cycle schools in the study area was taken from the Municipal education directorate. From that list, the schools will group into two, that is Basic Schools and SHS. Using simple random sampling, three basic schools and two SHS was selected. The names of the basic schools were written on pieces of paper, and placed in a container**.** A person who is not part of the research team was tasked to select a piece of paper without replacing it. And for the secondary schools they were selected using purposive sampling method since there are only two in the municipality.

3.6.4 Study Variables

Variables used for the analyses of this study was categorized into dependent and independent variables. The dependent variable here was the utilization of youth-friendly health services while the independent variables include the socio-demographical information. Other important variables were analyzed using a variety of related questions. The variables for the study are explained below

3.6.5 Dependent Variables

The utilization of youth-friendly health centres within the Yilo Krobo Municipality within the last twelve (12) months. This was measured on a dichotomous response (yes or no) to the question; "Have you ever visited Adolescent and Youth-Friendly Health Facility within the municipality in

the last twelve (12) months?" where yes and no was assigned the scores '1' and '0" accordingly. This was corroborated by the utilization of any of the SRH services rendered at the various facilities including general counselling and health information, Pregnancy Testing, family planning and counselling, information on SRH, HIV Counselling and Testing and STI Treatment and Management.

3.6.6 Independent Variables

Socio-demographics, educational level, Age, religion, and adolescents' level of knowledge about sexual and reproductive health.

3.7 Pre-test of the instrument

Thirty (30) adolescents were used for the pre-testing of the study instrument in the Lower Manya Krobo Municipality. This was done to test its accuracy, validity and reliability of the questions so that all inconsistencies will be corrected.

3.8 Data Collection

The principal investigator and two research assistants collected the data. The questionnaire was structured into four sections. Section one deals with the socio demographic characteristics of participants. The second part examines questions related to their knowledge on reproductive health service. Whilst section three looks at the factors influencing utilization of the sexual and reproductive health service and the last part comprises of barriers, they face in accessing the health service.

All covid-19 safety protocols were followed strictly when administering the questionnaire.

3.8.1 Data Processing and Analysis

Data gathered from the pre-tested questionnaires was analyzed using SPSS version 22 and 0.05 was chosen as the alpha level for statistical significance.

3.8.2 Descriptive statistics

These were presented using percentages in the form of frequency. Frequency and percentages are usually used for simple descriptive statistics to report on socio-demographic characteristics, knowledge and perception about accessibility and utilization of reproductive health service.

3.8.3 Inferential statistics

Bivariate analysis: The Pearson's chi-squared test was used to assess the relationship between the independent variables and the dependent variable, utilization of SRH.

Chi Square statistical test was conducted to check the association between the independent variable and the dependent variables.

Multivariate logistic regressions were also conducted to determine the strength of associations and factors which influence the utilization of reproductive health services among the respondents. Odds ratio and their 95% confidence intervals was used to assess the strength of association. P-value of 0.05 was chosen for statistical significance.

3.8.4 Ethical considerations

The whole study was carried out according to the ethical guidelines approved by the Ethical Committee of the Ghana Health Service, Research and Development Division.

3.8.5 Quality Control

The research assistants were trained to understand the aims of the study. They were also instructed on how to administer the questionnaires. In addition, mock interviews were undertaken to prepare the research assistants adequately to gather quality data. There was daily inspection of completed questionnaires to eliminate all internal inconsistencies and inaccuracies in the data gathered. The data entered was cross-checked times in order to reduce errors. This was done to increase data quality.

3.9 Limitation of the study

Most of the search for literature was done primarily online.Therefore there was the possibility that some relevant and very good articles and publications were not accessed.

Additionally, the study involved only in-school adolescents. Therefore, anyone outside this group was not part.

Also, the sample size is not large enough to enable us generalize the findings and conclusions of the study.

Lastly, the issue of social desirability might influence the data and questions that are very sensitive will cause respondents to under-report.

3.10 Summary

This chapter described the study area, research design and the detailed outline of variables that were studied. The sample size estimation and sampling technique were explained as well as the pre-and post-data collection activities. The next chapter presents the findings of this study.

CHAPTER FOUR

RESULTS

4.0 Introduction

The data provided statistical information on the utilization of youth-friendly health services among adolescents in the Yilo Krobo municipality, which is the purpose of this study. The data was obtained through the use of questionnaires, an instrument used in survey. As a result of non-response and incomplete filling of some questionnaires, the stated sample size of 422 was not achieved. Completed data were available for 401 adolescents, yielding a 95% response rate.

This chapter looks at the analysis of results. It covers the socio-demographic, sexual and reproductive health knowledge, the source of information and sexual behaviour of adolescents in the Yilo Krobo Municipality.

4.1 Socio-demographic characteristics of participants

The socio-demographic was analyzed using SPSS version 22. The data was entered into the SPSS and analyzed using frequencies and percentages.

This section looks at the socio-demographic characteristics of the participants as represented in Table 4.1. The study involved 401 participants with the median age of 18 years and median was used because the age distribution was skewed. There were slightly more females (51.6%) than males (48.4%). On their religious affiliations, there were 314 Christians (78.0%), with 68 Muslims (17.0%) and 19 Traditionalists (4.7%).

The socio-demographic characteristics are summarized in Table 4.1

Table 4.1: Socio-demographic characteristics of participants

Characteristic	
Age in years, mean (SD)	18.0(2.0)
Sex, N (%)	
Male	194(48.4)
Female	207(51.6)
Religion, N (%)	
Christian	314(78.3)
Muslim	68(17.0)
Traditional	19(4.7)
Educational level, N (%)	
JHS	44(11.0)
SHS	357(89.0)
Marital status, N (%)	
Single	385(96.0)
Married/Cohabiting	16 (4.0)
Total, N(%)	**401(100.0)**

From the table 4.2 below, 195 (48.6%) of the respondents said they knew of an adolescent friendly health centre and out of those, 133 (68.2%) said the centre they knew of was far with 95 (48.7%) claiming they got to know of it from their friends and only 8 (4.1%) of them getting to know of it from the internet. Ninety-one (91) representing 46.7% of the respondents said they knew of the centre from their teachers, 64 (32.8%) of participants got to know of a facility through the school health clubs. 59 (30.3%) of adolescents had the knowledge of the centre through medical doctors and nurses. (Table 4.2)

Table 4.2: Knowledge on the availability of youth-friendly health services

		N	%
Know of any adolescent friendly health centre			
No		206	51.4
Yes		195	48.6
For those who know of any adolescent friendly health centre:	195	100.0	
Known adolescent friendly health centre far			
No		62	31.8
Yes		133	68.2

Source of awareness on adolescent and youth-friendly health service facility*		
Friends	95	48.7
Teachers	91	46.7
School health	64	32.8
Doctor/Nurse	59	30.3
Television	14	7.2
Radio	19	9.7
Flyer/Brochure/Poster	7	3.6
Internet	8	4.1
Do you think there is enough education on the adolescent and youth-friendly health services facility		
No	88	45.1
Yes	107	54.9
Types of services offered at the youth-friendly health facility*		
Information on SRH	81	41.5
General counselling and health	113	58.0
Family planning service	98	50.3
STIs/HIV testing and counselling	21	10.8
STIs treatment and management	67	34.4
Pregnancy testing	15	7.7
ANC services for adolescents	10	5.1
Youth-friendly health services important to adolescents		
No	18	9.2
Yes	177	90.8

*Multiple responses allowed

4.2 The utilization of youth-friendly health services

From the table below, 153 (38.2%) of the adolescents said they had visited a youth-friendly health facility and out of those, 86 (56.2%) said they had done so within the previous 12 months.

Out of those who hadn't done so within the previous 12 months, 33 (49.3%) claimed there was no privacy in such a centre with only 6 (9.0%) saying people would think they were bad if they saw

them attend. Ninety-one(91) participants representing 3.4% claim they do not have the need for the services. Another thirty-two respondents(47.8%) stated they will meet adults at the facilities which was a big turn off. Twenty-five(25) adolescents(37.3%) revealed that the healthcare providers were not friendly. On the issue of cost, fifteen(15) participants (22.4%) said that was a problem. With regards to the distance to the facilities, only nine(9) adolescents saw that as problematic.Out of the 86 who had attended such a facility within 12 months, 46 (53.5%) said they were dissatisfied with the service while 35(40.7%) were satisfied and 5(5.8%) were neither satisfied nor dissatisfied.

On the question of SRH services patronized at the youth-friendly health facilities, 33(38.2%) went there for information on SRH, 30(34.9%) visited for health counselling. Forty-one(41) respondents went to the various facilities for family planning services and forty adolescents visited the health centres for STIs testing and treatment.(Table 4.3)

Table 4.3: The utilization of youth-friendly health services

	N	%
Ever visited a youth-friendly health facility		
No	248	61.8
Yes	153	38.2
Ever visited a youth-friendly health facility within municipality past 12 months		
No	67	43.8
Yes	86	56.2
Reason for never visiting youth-friendly health facility*		
Do not have the need for it	19	3.4
Will meet adults there	32	47.8
No privacy	33	49.3
Healthcare providers are not friendly	25	37.3
Can't afford the services	15	22.4
People will think I'm a bad boy/girl	6	9.0
Far from my house	9	13.0

For those who had ever visited a youth-friendly health facility within municipality past 12 months:	86	100
Experience visiting youth-friendly health facility		
Satisfied	35	40.7
Dissatisfied	46	53.5
Neither	5	5.8
SRH services patronized at the youth-friendly health facility*		
Information on SRH	33	38.2
Health information and counselling	30	34.9
Family planning and counselling	41	47.7
STIs/HIV testing and counselling	35	40.7
STIs treatment and management	5	5.8
Pregnancy testing	31	36.1
CAC service	35	3.5

*Multiple Responses allowed

4.3 Factors that influence the utilization of you -friendly health services

Factors which influence the utilization of youth-friendly health service. Age did not influence the utilization of YFHS as the p-value (p=0.976).

Even though females had a higher utilization rate of 39.1% compared to that of the males (37.1%), there was still no statistically significant relationship between the two variables.

Additionally, religious affiliations also did not have a significant association with accessing the youth-friendly health centres. Contrary to many study findings, educational level did not have any significant association with accessing of adolescent-friendly health facilities.

Marital status also did not have any significant association with the use of SRH services even though those who are marital or co-habiting had a higher rate of usage than those participants were

single. Strangely, knowledge of sexual and reproductive health did not necessarily translate into utilization of youth-friendly health service.

However, those who were in a relationship had a statistically significant association with the utilization of the services as those who were in relationship had a higher rate of accessing than those who were not in relationship. Dating because of money have high statistically significant association with the utilization of YFHS as the p-value (p=0.001) indicated (Table 4.4)

Table 4.4: Factors that influence the utilization of youth-friendly health services

Characteristics	Total No.	Ever utilized		Test/ P-value
		No	Yes	
Age in years, median(IQR)	401	18.0(2.0)	18.0(2.0)	P=0.976
Sex, N(%)				$X^2(1)$ =0.17 p=0.678
Male	94	122 (62.9)	72 (37.1)	
Female	207	126 (60.9)	81 (39.1)	
Religion, N (%)				
Christian	31	201(64.0)	113(36.0)	$X^2(2)$ =3.04
Muslim	68	36(52.9)	32(47.1)	p=0.219
Traditional	19	11(57.9)	8(42.1)	
Educational level, N (%)				
JHS	44	23(52.3)	21(47.7)	$X^2(1)$ =1.92
SHS	357	225(63.0)	132(37.0)	p=0.166
Marital status, N (%)				
Single	385	239(62.1)	146(37.9)	$X^2(1)$=0.221
Married/Cohabiting	16	9(56.3)	7(43.8)	p=0.638
Do you Know what SRH is				
No	65	43(66.2)	22(33.8)	$X^2(1)$ =0.61
Yes	336	205(61.0)	131(39.0)	p=0.435
Have you ever been in a relationship, N(%)				
No	138	98(71.0)	40(29.0)	$X^2(1)$ =7.50
Yes	263	150(57.0)	113(43.0)	p=0.006
Ever dated someone because of money, N (%)				
No	188	132(70.2)	56(29.8)	$X^2(1)$=10.50
Yes	213	116(54.5)	97(45.5)	p<0.001
Ever had sex, N (%)				
No	150	106 (70.7)	44 (29.3)	$X^2(1)$ =7.90
Yes	251	142 (56.6)	109 (43.4)	p=0.005
Religion, N (%)				
Christian	314	201 (64.0)	113 (36.0)	$X^2(2)$ =3.04

Muslim	68	36 (52.9)	32 (47.1)	p=0.219
Traditional	19	11 (57.9)	8 (42.1)	
Educational level, N (%)				
JHS	44	23 (52.3)	21 (47.7)	$X^2(1) = 1.92$
SHS	357	225 (63.0)	132 (37.0)	p=0.166
Marital status, N (%)				
Single	385	239 (62.1)	146 (37.9)	$X^2(1)=0.221$
Married/Cohabiting	169	(56.3)	7 (43.8)	p=0.638
Do you Know what SRH is				
No	65	43 (66.2)	22 (33.8)	$X^2(1) = 0.61$
Yes	336	205 (61.0)	131 (39.0)	p=0.435
Ever been in a relationship, N (%)				
No	138	98 (71.0)	40 (29.0)	$X^2(1) = 7.50$
Yes	263	150 (57.0)	113 (43.0)	p=0.006
Ever dated someone because of money, N (%)				
No	188	132 (70.2)	56 (29.8)	$X^2(1) = 10.50$
Yes	213	116 (54.5)	97 (45.5)	p<0.001
Have you ever had sex, N(%)				
No	150	106(70.7)	44(29.3)	$X^2(1) = 7.90$
Yes	251	142(56.6)	109(43.4)	p=0.005

4.4 Barriers to the utilization of youth-friendly health services

To determine the barriers which hinders the access and utilization of sexual and reproductive health service facilities by adolescents we look at various aspects such as waiting time, convenient working hours of the facilities, enough privacy and confidentiality. 70.9 % of respondents stated that the gender of the service provider made them uncomfortable and 72.1% of the participants cited the high cost of service as a hindrance. Fifty-three(53) respondents representing 61.6% considered the waiting time at the facility as unreasonable. On the working hours of the health centres, thirty-five (35) adolescents(40.9%) see the period as not convenient. On the issue of privacy and confidentiality, 41.9% of the participants feel there was not enough in the facilities. On the subject of treatment by healthcare providers during visits by the participants, 37 participants representing 43.0% stated they were treated very well. Sixteen(16) respondents claimed the treatment was well and lastly, 33 adolescents(38.4%) stated the treatment was poor.The various barriers are summarized in table 4.5

Table 4.5: The Barriers to utilization of youth-friendly health services

	N	%
Waiting time not reasonable	53	61.7
Working hours of facilities not convenient	35	40.7
Not enough privacy and confidentiality during your visit	36	41.7
Gender of service provider made you uncomfortable	61	70.9
Cost of service provided high	62	72.1
Treatment by provider during visit		
Very well	37	43.0
Well	16	18.6
Not very well/Poorly	33	38.4

*Multiple responses allowed

4.5 Summary

The participants included 48.4% of males and 51.6% of female's adolescents participated in the study. The adolescents indicated that they receive SRH information mostly from Friends (46.7%), teachers (63.2%) and school health clubs (32.8%). The study revealed that there was no statistically significant association between educational level and the utilization of youth-friendly health services (YFHS). However, there was statistically significant relationship between sexual activity and the utilization of youth-friendly health services.

CHAPTER FIVE

DISCUSSIONS

5.0 Introduction.

This chapter provides discussion of the findings and their public health impact in relation to literature from other studies.

It is organized under these major headings: utilization of reproductive health and associated factors among the respondents, factors influencing their utilization of SRH services, identified barriers in accessing youth-friendly health services, and strengths and limitations of the study.

5.1 Utilization of sexual and reproductive health services

The study revealed that the percentage of adolescents in the Yilo Krobo Municipality who had utilised youth-friendly health services (YFHS) is low. The mean age of utilisation was 18 years (2.0), however, there was not much difference between males and females, 72 (37.1%) and 81 (39.1%) respectively. Those who have ever visited a youth-friendly health facility in their lives was 153(38.2%) out of the 401 participants. And out of that number those who have visited a YFHS facility in the municipality within the past twelve (12) months was 86(21.4%).

The proportion of the participants in this study was quite lower than other studies carried out in other parts of Africa; a study done by Ayehu et al., (2016) in Ethiopia showed that 322 out of the total 781 representing 41.2% had utilized sexual and reproductive health services.

This goes to show that the utilization of the SRH service is very low in our part of the world. Another study carried out by Angela et al., (2017) in the Tema Metropolis revealed that only 99 (12.3%) out of a total of 806 participants have accessed youth-friendly health services. This confirms the fact that still utilization of this particular is not encouraging.

As revealed by Binu et al.,(2018) in their Ethiopian study that the utilization of the YFHS facilities among the adolescents was 21.2%.

The level of utilization of youth friendly reproductive health service by adolescents was 38.5% according to Helamo et al., (2017) who carried their study among Secondary School Students in Ethiopia. This is higher than the level of utilization recorded in this study.

Abajobir & Seme (2014), in their study conducted in the Machakel district of Ethiopia reported that only (21.5%) of the adolescents had ever used reproductive health services even though (67%) of them had knowledge about sexual and reproductive health.

Again, a mixed method study conducted by Ansha et al., (2017) concluded that less than half of the 420 respondents had utilized SRH services.

This is consistent with the findings of Kyilleh et al., (2018) in their study carried out in west Gonja in the northern region of Ghana who reported that the level of reproductive health knowledge among respondents was low and most of them rely on their peers as source of information.

(Tejineh, Assefa, Fekadu, & Tafa, 2015) also indicated that majority (97.3%) of their participants have heard about various family planning methods which means they have a fair about sexual and reproductive health matters.

A cross-sectional survey done by Kemigisha et al., (2018) in south western Uganda concluded that comprehensive SRH knowledge was also low among adolescents.

Flanagan et al., (2019) in a study undertaken in New York revealed that Adolescents above the age of 18 years old had higher odds of contraception use and high sexual health knowledge, compared to those below 18 years.

(Bwalya, 2018) in a study discovered that girls were more knowledgeable about different aspects of RHS such as family planning methods than boys. The findings further revealed that more female (26.4%) compared to male (25.3%) adolescents had received RHS. However, it was noted that despite the gender gaps, still the level of utilisation of RHS among adolescents was low in general. This is in line with the findings of our studies.

Regarding education, numerous studies point to the fact that a higher education level influences utilization of SRH services. A study carried out in Nepal came to the conclusion that adolescents with higher levels of education are 15 times more likely to utilize any of the SRH services (Bam et al., 2015). This conclusion is line with the findings of another study carried out in the Ashanti region of Ghana which also indicated that higher education influences the utilization of SRH services in a positive way (Addo et al., 2016).

Simegn et al., (2020) carried out an institution based cross- sectional study to assesses the utilization of YFHS among both high and preparatory school students in Northwest Ethiopia and the rate of utilization of RHS was 28.8%. This is slightly higher than results from this study but still it is not very encouraging.

However, Kyilleh et al., (2018) hold contrary views as the findings of their study revealed that both in-school and out-school adolescents were not different in terms of their knowledge and utilization of RHS. This is also supported by the findings of a quantitative descriptive cross-sectional study carried out by Aba Appiah-Mensah (2016) which revealed that education did not have much influence as the In-school adolescents who utilized the services was as low as 7.6%. Utilization in our study was also higher than that of the study carried out by Bam et al., (2015) study which indicated that SRH utilization was only 9.2% among the adolescents. Service

utilization was higher among males (12.5%) than females (4.3%). This same study examined Perceived SRH Service Utilization among second cycle students in Nepal. This is another case where educational level does not necessarily translate into higher utilization of SRH services.

Flanagan et al., (2019), in their longitudinal study concluded that sexual and reproductive health (SRH) services in New York was underutilized by vulnerable adolescents since a staggering 4% have received all four core services of SRH measured. This is lower than the results of this study.

A cross-sectional survey carried out by Napit et al.,(2020) in Nepal revealed that only (24.7%) of the 362 participants had utilize the adolescent-friendly services.

In a similar studydiscovered that majority of the respondents have utilized some services such as FP and VCT service but strangely it was rather low among the sexually experienced adolescents (Feleke et al, 2013)

A systematic review undertaken by Belay et al., (2021) concluded that Ethiopia's collective utilization was 42.73 %. This is way higher than the results of our study in Ghana.

(Kalamar et al, 2018) indicated that (54.4%) of girls who were active sexually have never use any form of contraception, while 13.3% of them have used contraception before but not currently.

(Dida, Darega, & Takele, 2015) also stated that even though (89.3%) of their participants knew modern family planning and (80.5%) of them had utilized at least one RHS before but still the overall uptake of specific reproductive health services is still below expected standards.

Aninanya et al., (2019), gathered from the meta-analysis that education was a strong predictor of uptake of SRH services as adolescents still schooling were 2.39 more likely to access FP services

than out-of-school adolescents. And they also found out that adolescents' educational level and discussion of RH matters at home have a strong association with SRH service use in Ethiopia.

However, this is in sharp contrast with what (Tilahun, Bekuma, Getachew, & Seme, 2021) gathered. Even though (28.1%) of adolescents indicated they were aware of youth reproductive health services, only 8.6% have ever visited health facilities to access the services. Sexual and reproductive health service utilization among adolescents and youth was found to be very low.

(Tlaye, Belete, Demelew, & Getu, 2018) carried out community-based cross-sectional study in central Ethiopia to explore the RHS uptake and its related factors among adolescents and reported that about 33.8% of them have accessed at least one of the reproductive health services which shows that the utilization of RHS in this study was low even though its higher than the results of this study.

A Systematic Review done by Zuurmond et al., (2019) to examine the usefulness of youth health facilities in scaling up utilization of reproductive health RHS in developing countries revealed that uptake of services was generally low.

5.2 Sexual and Reproductive Health Knowledge

One of the objectives of the study was to assess the knowledge level among the adolescents in the study area. And this consists of the various SRH topics they are conversant with, some of the SRH challenges facing adolescents and topics they frequently seek information on.

The study gathered that sexual reproductive health knowledge among adolescents was high (83.8%). This is higher than the result obtained in a study by Gaferi et al., (2018) which showed that adolescents' knowledge on reproductive health was 66.3%. Additionally, the study revealed

that about 61.3% of the respondents consider teenage pregnancy as the number one SRH challenge facing the adolescent girls.

In addition, Morris and Rushwan (2015) also discovered that high prevalence of STIs, difficulties in getting contraceptives, unplanned pregnancy, and unsafe abortion are some of the major challenges facing the current adolescents.

(Bankole et al., 2019) in their study revealed that most adolescents have some knowledge about various family planning methods unlike the 12.4% in this study.

5.3 Sources of knowledge

Most participants mention friends, siblings, a traditional media (radio and television) and social media as their source of sexual and reproductive knowledge which means they prefer to discuss SRH related matters with their friends and siblings more than parents and healthcare providers and also access the internet for information often.

Majority of the adolescents get their sexual and reproductive information largely from their colleagues (Kyilleh et al., 2018). So, this is in line with the findings of our study.

The use of the internet is higher in this study than that of the study carried out by Mahanta et al., (2015). They reported that the lowest source of information was internet (8.3%) and the media (62.5%) was the commonest source of information.

According to a study by Kemigisha et al., (2018) Comprehensive knowledge of SRH was not high among very young adolescents in their study. The mass media remains the single most important source of SRH information for this group of individuals.

5.4 Factors influencing Utilization of SRH

This section examines critically the numerous factors which impact utilization of SRH based on the findings.

5.4.1 Influence of background characteristics

Age is seen as important determinant of the utilization of SRH services. The age at which a person begins sex is significant since early sexual exposure is normally associated with the tendency to have multiple partners (Khangelani et al., 2019). Early sex by adolescents determines their utilization of RH services. This is also confirmed by Madise et al., (2019) who also came to the conclusion that younger adolescents are less sexually active than the older ones.

On the subject of education, countless publications have revealed that a higher educational level has an impact on utilization of SRH services. According to Bam et al., (2015) adolescents who attained higher educational levels have a higher probability to access YFHS. This conclusion is in line with another study carried out in the Ashanti region of Ghana which revealed that higher education determines SRH services utilization to a large extent (Addo, 2016).

On the other hand, Kyilleh et al., (2018) present a contrary view by stating that the educational status of the adolescents did not necessarily influence their knowledge and uptake of SRH.

This is similar to the findings of this study as the educational level of the respondents did not in any way influence the utilization of SRH facilities.

5.4.2 Sexual activity and reproductive health background

The study showed that, those who have ever had sex, dated because of money and ever been in a relationship have a significantly association with the use of SRH services.

Sexual activity is a major contributing factor in utilization of SRH by adolescents according to Bam et al., (2015)

Their conclusion is line with the findings of this study.

5.5 Barriers to the utilization of Sexual and Reproductive Health Services

This section examines some obstacles and hurdles which hinder the adolescents from getting access to the services in the municipality. The gender of the healthcare provider, waiting time and cost of service provided, lack of privacy and confidentiality and the attitude of the service providers were some of the barriers they listed.

A study in Ejisu in Ghana identified societal attitudes as the reason why there is low level of knowledge about SRH services among adolescents (Owusu-Addo et al., 2016).

Even though the participants were aware of the availability of RHS in their community but still did not utilize it much because of the negative attitude and behaviours of some health workers, lack of confidentiality and some societal norms(Kyilleh et al (2018). This is supported by (Bankole & Malarcher, 2019a) whose study concluded that, societal norms is the main reason majority of adolescents do not use any form of contraceptives resulting in so many unplanned pregnancies, which sometimes lead to unsafe abortions.

According to Aziato et al., (2016), the unprofessional attitudes and behaviours of many health workers is a major cause of low patronage of YFHS by adolescents.

The judgmental attitude of many healthcare professionals turns off many adolescents. Some health workers hide behind administrative pretexts to avoid delivering services (Castro et al., 2018).

A cross-sectional study using mixed methods carried out by Ansha et al.,(2017) in Ethiopia numerated reasons such as lack of privacy, inconvenient working hours and some very harmful socio-cultural practices for low patronage of the services.

Again, a study in Lao People's Republic also cited cognitive, psychosocial and geographical accessibilities as barriers (Thongmixay et al., 2019). The cognitive barriers here include lack of sexual knowledge and lack of awareness about the services. The psychosocial accessibility barriers are the shyness and shame as a result of societal attitudes towards premarital sex.

Norma N. Kpangbala (2020) in a systematic review of articles on SRH in Liberia came to the following conclusions. The main barriers are inadequate information on types of contraceptives and the fear of infertility as its side effect. The feelings of shame because of societal attitudes, and spousal refusal. Other obstacles identified include inadequate supply of essential drugs, service providers' negative attitudes and frequent violation of confidentiality.

Lastly, the economic power dynamics also hinders access to SRHS.

The cost of the services at the various facilities is one barrier most respondents mentioned. This is confirmed by Decker et al.,(2021) who revealed that half (52.0%) of the youth reported concerns about high cost of services while almost half of the participants (49.8%) raised issues about confidentiality.

Barriers such as distance to health facilities, inadequate privacy and confidentiality, and the bad attitudes of workers towards adolescents were also reported by Razee et al.,(2019) in their study in Nepal.

Four(4) main barriers impede access to adolescent health services. The barriers were found at the personal, community, facility and healthcare provider levels (Abuosi & Anaba, 2019). This is the conclusion from their qualitative study carried out in Ghana.

This is also supported by Napit et al., (2020) who conducted a mixed method study and concluded that socio-cultural barriers, unfavorable service hours, confidentiality issues and the desire for same-sex service providers as the barriers impacting utilization.

Similar views were expressed by Bwalya (2018) in their study in which they stated the following as reasons for low utilisation of RHS in Lusaka, Zambia; adolescents' dislike for service providers of the opposite sex, wide age gap between adolescents and the health service providers, and the long distance to the health centres.

The preference of adolescents for a "one stop shop" kind of facilities for the services (Bankole et al., 2019; Mburu et al., 2019). This means that there will be no need to walk around in order to access the various services taking into account the stigma they have to deal with.

Though some adolescents were satisfied with the quality of service, there were still challenges of lack of funds, lack of privacy and confidentiality, staff incompetence and parental disapproval for some services (Atiku, 2015).

5.6 Strengths of the study

1. This is one of a handful studies on utilization of reproductive health services by adolescents has been carried out in the municipality. The findings of the study will be a useful tool in assessing and improving existing interventions.

2. Even though the municipality has a higher incidence of HIV/AIDS and teenage pregnancy, not much studies have been carried out on these health challenges.

3. The findings and conclusions can serve as the basis to inform the drafting of policies for adolescent reproductive health and interventions in the municipality.

4. This study also provides the basis for further studies on utilization of adolescent reproductive health sometime to come. There are still many aspects of the adolescent reproductive health in Ghana which were not tackled therefore the findings and conclusions could serve as a reference for future researches.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

This chapter looks at the conclusions of the study in relation to the results of the study, certain recommendations are put off in an attempt to deal with the SRH needs of adolescents in the municipality and for that matter Ghana.

6.1 Conclusions

The findings from the study showed that utilisation of Youth-friendly health service facilities among adolescents in the Yilo Krobo Municipality is low and estimated at 21.4%.

Even though females had a higher utilization rate of 39.1% compared to that of the males (37.1%), there was still no statistically significant relationship between the two variables.

However, those who were in a relationship had a statistically significant association with the utilization of the services as those who were in relationship had a higher rate of accessing than those who were not in relationship. This concludes that those who are sexually active are more likely to utilize SRH services.

Secondly, the finding also revealed that majority of those who visited the facilities utilized family planning and STIs testing and counselling services. Comprehensive abortion care had the lowest record of utilization. However, most of the respondents were satisfied with the services rendered.

Finally, many barriers were cited by the respondents as reasons for their underutilization of the youth-friendly health services. Notable among them were cost of the services and the gender of the service providers and long waiting time before they are attended to in the facilities among adolescents.

6.2 Recommendations.

Therefore, the following recommendations are made to appropriate institutions for action:

1. Peer educators and health care professional in the municipality must also embark on vigorous health campaign and education to enhance utilization of SRH services.

2. Retraining of health care providers to be more professional and friendly when rendering services to the adolescents.

3. Increase accessibility to services by extending services to after-school hours, taking services to the door-steps of adolescents via community and school outreaches.

4. More healthcare workers of diverse genders should be trained to offer services to the adolescents based on their gender. The government should either reduce the cost of services by half or make it totally free for all adolescents.

6.3 Limitations of this study

1. This study was focused on adolescents in school which means that the findings cannot be generalized.

2. The sample size was small therefore we cannot generalize the findings of this study.

6.4 Future Research

There should be further studies on this subject involving all adolescents in the Yilo Krobo municipality (both in and out of school) since this study was only on in-school adolescents. This will help establish whether adolescents in the municipality utilize the youth-friendly health services (YFHS) or not. Further studies should also be done on the same subject to determine other factors that contribute to the under-utilization of the YFHS in the Yilo Krobo municipality.

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APPENDICES

APPENDIX I: DATA COLLECTION TOOL

UTILISATION OF YOUTH-FRIENDLY HEALTH SERVICES AMONG

ADOLESCENTS IN THE YILO KROBO MUNICIPALITY

Questionnaire Code: …… Date …… **Session 1: Socio-demographic characteristics of participants**		
1.Age (years)		……..
2. Sex	1. Male 2. Female	…….. ……..
3. What is your religion?	1.Christian 2. Muslim 3. Traditional 4. Other, Specify	…… …… …… ……..
4.What is your current level of education	1Primary. 2.JHS 3.SHS	…….. …….. ……
5.What is your current Marital status?	1. Single (Not Married) 2. Married 3. Co-habiting	…… …… …….
KNOWLEDGE ON SEXUAL AND REPRODUCTIVE HEALTH(SRH) RELATED ISSUES		
6.Do adolescents need knowledge about sexual and reproductive health	1. Yes 2. No	…… ……

7.Do you know what Sexual and Reproductive Health (SRH) is?	1. Yes 2. No	..... ……
9What sexual and reproductive health topic(s) Have you ever heard?	1.Menstrual hygiene 2.Sexually Transmitted Infections 3.Family planning 4.HIV counselling and testing 4.Pregnancy testing 5.Unsafe abortions 7.Antenatal and post-natal services	…….. …….. …….. …….. …….. …….. ……... ……
10. How often do you seek information about Sexual and Reproductive Health?	1.Very Often 2. Often 3. Once a while 4. When the need arises	…… …….. ……. ……..
11. On what topics or issues do you seek Sexual and Reproductive Health information?	1. Protection/ safe sex 2. Pregnancy/abortions 3.HIV/ AIDS 4. Other (please specify	…….. …….. …….. ……..
12.What are some of the health challenges faced by adolescents	1. STIs 2.Early pregnancy 3.Sexual violence 4.STIs 5. Unsafe abortions 6.Poor menstrual hygiene	…….. ……. …… …….. ……. …….

SOURCE OF INFORMATION ON SEXUAL AND REPRODUCTIVE HEALTH RELATED ISSUES		
13.Which of these sources adequately provide you with SRH information?	1.Parents. 2. Siblings 3. Friends 4. Radio 5. TV 6. Internet (Social Media) 7.Others (please specify	……. ……. ……. …….. ……. ……. ……
14.Which of these sources do you feel most comfortable seeking SRH information?	1.Parents 2. Sibling 3.Friends 4. Radio 5. TV 6. Internet (Social Media) 7. Others (please specify)	……. ……. ……. ……. ……. ……. ……..
15.Which of these is your preferred source of Sexual and Reproductive Health information?	1.Parents 2. Sibling 3.Friends 4. Radio 5. TV 6. Internet (Social Media) 7. Others (please specify)	……. ……. ……. ……. ……. ……. …….

16.What informed your choice of a particular source of SRH information?	1. Accessibility 2. Comprehensive. 3. Informative 4. Privacy 5. Same beliefs/values 6. other (please specify)	…….. …….. ……. …….. …….. ……..
17.Have you ever discussed SRH matters in your home?	1. Yes 2. No	……. …….
18. If yes, how often?	1. often	……

	2. very often 3. once a while 4. When the need arises 5.Never 6. Others (please specify	……. …….. …….. …….. …….
19. If no, why?	…… …… ……	
20.Which of your family members do you discuss sexual and reproductive health issues with?	1. Mother 2. Father 3. Sibling 4. Other (please specify)	……. …….. …….. …….....
21. Do you feel comfortable discussing SRH issues with your parents?	1. Yes 2. No	…… ……
22.If no, why?	…….. ……..	

23.Do your parents feel comfortable discussing SRH with you?	1. Yes 2. No	…… ……
KNOWLEDGE ON THE AVAILABILITY OF YOUTH-FRIENDLY HEALTH SERVICES		
24.Have you know of any adolescent friendlyhealth centre?	1. Yes 2. No	…… ……..
25. Is it far?	1. Yes 2. No	…… ……..

26. How did you heard about the Adolescent and Youth-Friendly Health Service Facility?	Multiple responses allowed 1. Friends/Peers 2. Teacher 3. School Health Club/school 4. Doctor/nurse 5. TV 6. Radio 8. Flyer/brochure/poster 9. Internet (social media) 10. Others (specify)...	 …… …… …….. …….. …… ……
27. Do you think there is enough education on the adolescent and youth-friendly health services	1. Yes 2. No	…… ……

28. Which Type Of Services Is Being Offered At The Youth-Friendly Health Corner/Facility	Please tick the appropriate responses 1. Information on SRH 2. General counselling and Health information 3. Family planning/ counselling services 4. STI and HIV Testing and counselling	 5. STIs Treatment and Management 6. Pregnancy Testing 7. ANC Services for adolescents 8. CAC Services for adolescents
29.In your opinion, are these services important to adolescents?	1. Yes 2. No	……. …….
FACTORS INFLUENCING THE UTILIZATION OF YOUTH-FRIENDLY HEALTH SERVICES		
30 Have you ever visited a youth-friendly health facility inyour life?	1. Yes 2. No	……. …….
31. Have you ever visited an Youth -Friendly Health Facility within the municipality in the last twelve (12) months?	1. Yes 2. No (Skip to no. 32)	…….. …….. ……

32. If yes, how was your experience?	1 Satisfied 2 Dissatisfied 3 Others (specify)	…….. ……. ……
33. If no, why? Multiple responses are allowed	1. Do not have the need for it 2. Because I will meet adults) there 3. There is no privacy	4. The healthcare provider are not friendly. 5. I cannot afford the services. 6. People will think I am a bad boy/girl. 7. It's far from my house

34.Which SRH services did you go for at the youthfriendly health facility?	Circle all services received 1. Information on SRH 2. General counselling and Health information 3. Family planning and counselling services 4. STI / HIV Testing and Counselling 5. STIs Treatment and Management	6. Pregnancy Testing 7. ANC Services 8. CAC Services 9. Others (specify)
BARRIERS TO THE UTILIZATION OF SRH SERVICES		
35.Do you think waiting time was reasonable or too long?	1. Yes 2. No	…… ……
36.Are the hours these facilities are open convenient for you?	1. Yes 2. No	…….. ……
37.Was there enough privacy and confidentiality during your visit?	1. Yes 2. No	…….. ……
38.During your visit, how were you treated by the provider?	1 Very well 2 Well 3 Not very well/poorly	

39. Did the gender of the service provider make you uncomfortable?	1. Yes 2. No	…… ……
40. Was the cost of service provided high?	1. Yes 2. No	…… ……..

SEXUAL BEHAVIOURS		
41. Have you ever been in a relationship?	1. Yes 2. No	…….. ….....
42. Have you ever had sex?	1. Yes 2. No	…….. ……..
43. Do you currently have a sexual partner	1. Yes 2. No	…….. ……..
44. Have you had sex within the last 12 months?	1. Yes 2. No	…… ……..
45. The first time you had sex, did you use condom?	1. Yes 2. No	…….. ……
46. Within the 12 months did you ever use alcohol or drug before you had sex?	1. Yes 2. No	
46. Within the last 12 months how many sexual partners (boyfriend/ girlfriend) have you had?	(___) (___)	…….
47. Within the last 12 months how many casual sex partners have you had?	(___)(___)	……
48. Have you ever dated someone because of money?	1. Yes 2. No	…….. ……..
49. Do you have sexual intercourse when you are anxious, depressed or stressed?	1. Yes 2. No	…… ……
50. The last time you had sexual intercourse, did	1. Yes 2. No	…… ……..
you or your partner use condom?		

Thank You

APPENDIX II: PARTICIPANT INFORMATION SHEET

Title of Study

Utilization of youth-friendly health services among adolescents in the Yilo Krobo Municipality.

Introduction

I am a student at the School of Public Health in the University of Ghana, who is pursuing an M.Sc. Applied Health Social Science and contacts are as follows

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Background and Purpose of research

The World Health Organization (WHO) defines an adolescent as the cohort aged 10 to 19 years. They account for 18% of the world's population that is, about 1 in 6 persons in the world is an adolescent (World Health Organization, 2016a). In Sub-Sahara Africa and Ghana, adolescents comprise nearly a quarter (23%) of the population. Adolescence is a period of life with specific

health and developmental needs and rights characterized by significant physiological, physical, emotional, and social changes.

These rapid changes drive adolescents to unhealthy behaviours such as sex experimentation, unsafe sexual activities, and multiple sexual partners thereby exposing them to sexually transmitted infections (STIs) like HIV/AIDS, chlamydia, syphilis, and gonorrhea.

The purpose of this study is to explore the utilization of sexual and reproductive health services among adolescents in the Yilo Krobo Municipality.

Nature of research

It is an exploratory study that seeks to use quantitative methods to examine how adolescents in the municipality are utilizing the sexual and reproductive health services in the Yilo Krobo municipality and 422 participants will be involved.

Participants Involvement:

Randomly selected adolescents aged 10-19 years living within the Yilo Krobo Municipality will be involved in the study. If you are eligible and agree to participate in the study, you will be required to complete an interviewer-administrated questionnaire. We will ask you questions about your background, knowledge about Sexual and Reproductive Health (SRH) related topics, awareness, and use of adolescent and youth-friendly health services.

Potential Risks

Participants will not be exposed to any risk in this research. However, because sexual and reproductive health issue is a sensitive area, it may create emotional discomfort.

Benefits

You will not receive any direct benefit for participating but the findings of the study will be useful in educating adolescents about their sexuality. It will also provide both policymakers and healthcare providers with information to appreciate youth-friendly health service demand and uptake by adolescents and also help make the services more adolescent and youth responsive.

Costs

All costs in terms of transportation and other expenses will be borne by the investigator.

Compensation

Participants will not be given any monetary compensation for participating in this study.

However, they will be given snacks after filling the questionnaire as an appreciation for their time.

Confidentiality

All the information provided will be known exclusively to the researcher and his supervisors. The names will not be included in any of the information which will be given to the researcher except the agreement form. The information given will be kept under lock in the office of the researcher's supervisor for five years and if the need to use it further arise permission will be sought from you.

Voluntary participation/withdrawal

Your participation in this study is voluntary. Additionally, you are at liberty to withdraw from the study at any time. However, we will encourage you to participate and complete the questions since your experiences and opinions are very important in helping us to understand the factors associated with the utilization of youth-friendly health services among adolescents in Ghana.

All safety protocols against the spread of COVID-19 will be followed strictly in carrying out the research.

Funding information

The principal investigator will single-handedly sponsor the entire research.

Contacts for Additional Information

Participants will be assured of the freedom to ask any question now or in the course of the study. They are assured of an answer at any time. For further information please contact:

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APPENDIX III: CONSENT FORM FOR ADOLESCENT

STUDY TITLE: Utilization of youth-friendly health services among adolescents in the Yilo Krobo Municipality.

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the Participants'

Information Sheet read and satisfactorily explained to me in a language I understand (English, Dangme and Twi). I fully understand the contents and any potential implications as well as my right to change my mind (i.e. withdraw from the research) even after I have signed this form.

I voluntarily agree to be part of this research.

Name or Initials of Participant……. ID Code …….

Participants' Signature ……OR Thumb Print…….

Date: ……

INTERPRETERS' STATEMENT

I interpreted the purpose and contents of the Participants' Information Sheet to the forenamed participant to the best of my ability in the (English, Dangme and Twi) languages to his proper understanding.

All questions, appropriate clarifications sort by the participant and answers were also duly Interpreted to his/her satisfaction.

Name of Interpreter:

Signature of Interpreter…… Date: ……

STATEMENT OF WITNESS

I was present when the purpose and contents of the Participant Information Sheet was read and explained satisfactorily to the participant in the language he/she understood (English, Dangme and Twi)

I confirm that he/she was given the opportunity to ask questions/seek clarifications and same were duly answered to his/her satisfaction before voluntarily agreeing to be part of the research.

Name:

Signature……. OR Thumb Print ……...…….

Date: ……

INVESTIGATOR STATEMENT AND SIGNATURE

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

Researcher's name:

Signature …….

Date……

APPENDIX IV: PARENTAL CONSENT FORM

If you agree that your child should take part in the study, please sign or thumb print the

Consent form. Information on the sheet has been read to me. I have been informed that my child will be asked some questions about utilization of youth-friendly reproductive health care services among adolescents.

I am told that my child has the right to withdraw from the study anytime he or she wishes. I was given the opportunity to ask questions about the study and every question 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 fully explained to my satisfaction. I therefore agreed willingly to participate in the study.

Signature/Thumbprint of parent……

Name of Principal Investigator:

Signature…….

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the Participants'

Information Sheet read and satisfactorily explained to me in a language I understand (English, Dangme and Twi). I fully understand the contents and any potential implications as well as my right to change my mind (ie withdraw from the research) even after I have signed this form.

I voluntarily agree to be part of this research.

Name or Initials of Participant……..ID Code ……

Participants' Signature ……OR Thumb Print…….

Date: ……

INTERPRETERS' STATEMENT

I interpreted the purpose and contents of the Participants' Information Sheet to the forenamed participant to the best of my ability in the (English, Dangme and Twi) languages to his/her proper understanding.

All questions, appropriate clarifications sort by the participant and answers were also duly interpreted to his/her satisfaction.

Name of Interpreter:

Signature of Interpreter…… Date: ……

STATEMENT OF WITNESS

I was present when the purpose and contents of the Participant Information Sheet was read and explained satisfactorily to the participant in the language he/she understood (English, Dangme and Twi)

I confirm that he/she was given the opportunity to ask questions/seek clarifications and same were duly answered to his/her satisfaction before voluntarily agreeing to be part of the research.

Name:

Signature……. OR Thumb Print ……...…….

Date: ……

INVESTIGATOR STATEMENT AND SIGNATURE

I certify that the participant has been given ample time to read and learn about the study.

All questions and clarifications raised by the participant have been addressed.

Researcher's name:

Signature …….

Date……

APPENDIX V: ETHICAL CLEARANCE

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

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

My Ref. GHS/RDD/ERC/Admin/App/21/293
Your Ref. No.

Research & Development Division
Ghana Health Service
P. O. Box MB 190
Accra
Digital Address: GA-050-3303
Mob: +233-50-3539896
Tel: +233-302-681109
Fax + 233-302-685424
Email: ethics.research@ghsmail.org
19th July, 2021

Cornelius Teye Ehiawey
University of Ghana School of Public Health
P.O. Box LG 110, Legon

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

GHS-ERC Number	**GHS-ERC 022/04/21**
Project Title	Utilization of Youth-friendly Health Services among Adolescents in the Yilo Krobo Municipality
Approval Date	19th July, 2021
Expiry Date	18th July, 2022
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. James Akazili
(Head, Ethics & Research Management Department)

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