

UNIVERSITY OF EDUCATION, WINNEBA

**KNOWLEDGE AND USE OF CONTRACEPTIVE METHODS AMONG
FEMALE STUDENTS AT KIBI SCHOOL FOR THE DEAF**

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**KNOWLEDGE AND USE OF CONTRACEPTIVE METHODS AMONG
FEMALE STUDENTS AT KIBI SCHOOL FOR THE DEAF, GHANA**



**A thesis in the Department of Special Education,
Faculty of Educational Studies, submitted to the School of
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of the requirements for award of the degree of
Master of Philosophy
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DECLARATION

Student's Declaration

I, Patience Sedem Alagbo, declare that this thesis, with the exception of the quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

Signature.....

Date.....

I hereby declare that the preparation and presentation of this work were supervised in accordance with the guidelines for supervision of thesis as laid down by the University of Education, Winneba.

Name of Supervisor: Prof. Yaw Nyadu Offei

Signature.....

Date.....

DEDICATION

To Mr. Norbert Alagbo and the late Mrs. Mary Aziado Alagbo, for their love and support.



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There are a number of people without whom this thesis might not have been successfully completed, and to whom I am greatly indebted.

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ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
EC	Emergency Contraceptive
HBM	Health Belief Model
HIV	Human Immune Virus
LAM	Lactational Amenorrhea Method
SRE	Sexual Reproductive Education
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
UID	IntraUterine Devices
WHO	World Health Organization



ABSTRACT

This study was conducted to understand the knowledge and use of contraceptive methods among female students at Kibi School for the Deaf. This study employed quantitative approach and case study as a design. Data were gathered from 27 female students. Questionnaire was used to obtain data from participants. The data were processed using SPSS software to separate the raw data obtained from the field. The results showed that participants' knowledge about contraceptive methods are relatively not encouraging, with 40.7% of participants knowing at least a method. The common sources of information regarding contraceptives method among the participants was through their friends and peers representing 22.2%. Participants had Knowledge of at least one contraceptive method and this was mostly knowledge of condoms. Result of this study revealed that the knowledge does not correspond with the use of contraceptive methods among the students. Twenty out of the 27 participants constituting 74.1 percent confirmed they have not used any type of contraceptive methods before. Although some the female deaf students (25.9 percent) had reported ever using a contraceptive method, consistent contraceptive use is very low. Again, it was revealed that students were unable to get access to contraceptive methods due to inadequate education on the relevance of using it. The study further revealed that, the female deaf students have negative misconception of using contraceptive methods. The study recommended that government through the Ministry of Education and the Ghana Education Service should make the learning of reproductive health education as part of the education curriculum of students with special needs to enhance the impartation of knowledge and use of contraceptive methods. It is also recommended that parents and teachers must encourage the use of contraceptive methods among female deaf students, the surest way to prevent unwanted pregnancy as well as contracting sexually transmitted infections (STI's) considering their condition.

CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

There has been a growing interest in adolescent reproductive health in recent times, which has been associated with the issue of teenage pregnancy. According to Hagan and Nsiah-Asamoah (2012), teenage pregnancy is an important health issue which poses a major challenge to the reproductive health of adolescents, particularly in developing countries. This is often attributed to the lack of importance attached to sex education in basic schools. Moreover, adolescents tend to experiment and indulge in risky sexual behaviors. This often exposes them to unplanned, thus unwanted pregnancies, unsafe abortions, and sexual transmitted infections (STIs). Research shows that there has been an estimated 24 million unsafe abortions in East Africa, 1.8 million in West Africa, and over 90,000 in middle Africa (Komey, 2016). Adolescents have unprotected sex for a multitude of reasons. Within or outside marriage, young women may feel the pressure to prove their fertility. Other young people may engage in unprotected sex because they have not considered contraception, fear possible side effects, are misinformed about the risk of pregnancy or STIs posed by unprotected sex or are more concerned with the safety of condoms than the safety of an unintended pregnancy (Hindin & Fatusi, 2009).

To avert unwanted pregnancies and its attendant adverse outcomes, contraceptive use has been prioritized as a key intervention tool. However, parents seem reluctant or find it embarrassing to engage their children in sex-related subjects. To most African parents, abstinence is the only option on the table for their children. This sort of thinking renders it nearly impossible to discuss the issue of contraceptives with their

children. But then, contraceptive knowledge and use are vital indicators of access to sexual and reproductive health information service which will in the long run help curb teenage pregnancy and its related challenges (Nyarko, 2015). The consequence of teen motherhood and adolescent pregnancy has become one of the major societal problems confronting many countries. Indeed, it has become the major contributor to maternal and child mortality, rapid population growth and to the cycle of ill-health and poverty (WHO, 2014). This is compounded by the unbaiting rate at which HIV and AIDS are on the rise, albeit losing the publicity it generated in the early years of the awareness campaigns. Given the significance of contraceptives in promoting the health of women and children, there has been several studies that have come up with probable factors that could affect its use. Gbagbo (2020) observed that early commencement of sexual activities, poor knowledge of contraceptives, and limited access to and underutilization of reproductive health services are key challenges confronting national adolescent reproductive health initiatives as poor knowledge of contraceptives among adolescents have been linked incomplete information and poor access resulting to a high prevalence of STIs, unwanted pregnancies, and other maternal health problems among young people.

Adolescent reproductive programs need to go beyond HIV and focus on broader topics in sexual and reproductive health currently, in many programs, other STIs and pregnancy prevention are conspicuously absent. In addition, gender differences need greater attention. Given gender differences in behavior as well as in some of the consequences of sexual activity, communication from any reliable source on sexual and reproductive health needs not only to be gender-sensitive, but to empower adolescents, particularly young women, to negotiate behavior on the basis of accurate information (Michelle et al,2009). Some authors have suggested that factors such as

education and income may have an influence on the use of contraceptives. For example, Asimwe et al. (2014), revealed that educational level and wealth index were significantly associated with contraceptive use. The results of the study indicated that women who have attained higher levels of education were more likely to use contraceptives, as were those who were amongst the richest households. Others have also suggested that religion may be a significant factor in driving the use of contraceptives and that it may influence the acceptance of contraceptive use in distinct ways based on the different religious backgrounds (Srikanthan & Reid, 2008; Darko, 2016).

Although the problem has stimulated much analysis and policy discussions among stakeholders and experts in the field of reproductive and child health, in Ghana, statistics from the Ghana Health Service (GHS) has shown that approximately 750,000 teenagers between the ages of 15 and 19 become pregnant each year regardless of the widespread of knowledge on contraceptive use (Tetteh, 2013). With increasing evidence on the alarming rates on adolescent pregnancy and its negative social and economic effects on the girl child and the society as a whole, contraceptive availability and use has become an important tool in health service delivery. It has also come to be a priority intervention program within the health sector thus, the need to assess the knowledge of contraceptive methods and identify factors affecting its use by female adolescents in Ghana (Mprah, 2013).

Boama et al., (2014) noted that, the use of contraceptives is influenced by numerous factors which includes knowledge of contraceptive methods, knowledge of their use, and access to these methods. Having good knowledge of contraceptives reduces misconceptions and fears about contraceptives and creates positive attitudes towards

their usage. Misconceptions about contraceptives contribute to the non-use of contraceptives among adolescents and young unmarried people. Many studies have revealed misconceptions about side effects and health problems associated with contraceptives as well as negative stereotypes about contraceptive users (Smell et al 2009; Mprah, 2013). Access to appropriate and relevant information, and the availability of contraceptive choices are crucial to family planning programs targeting not only adolescents but the general population as well. As averred by Komey (2016), adolescents are usually unable to access reproductive health services since health workers often consider adolescents' sexual activity as unacceptable. In most cases, health workers assume that sex education is the work of parents. Many young deaf people lack the resources and support to enable them make empowered choices about their sexual and reproductive health. The British Pregnancy Advisory Service (BPAS) is a reproductive healthcare charity which sees nearly 70,000 women a year and, as well as provides services in clinics, has an education program with a particular focus on young people with additional needs. There should be a clear language as a tool to measure the level of knowledge about sexuality and contraception, would allow us to identify the main knowledge gaps remaining in educational programme and so adapt them to youth educational needs. Giving the lack of a tool to measure this level of knowledge about sexuality and contraception in young people, the creation and validation of a scale for knowledge about sexuality and contraceptive methods is justified (Sanz-Martos, Isabel, Medina, García & Álvarez,2019). Early childbearing impacts negatively on adolescent women through impairment of their health and that of their offspring. It is also associated with increased risk of adverse pregnancy outcomes and infant mortality. In developing countries, complications during

pregnancy and childbirth have been identified as the leading cause of death among adolescent girls.

In Ghana, the negative perception held about people who are deaf and lack of societal understanding, has contributed to the disregard of their needs in sexual reproductive health policies and service delivery. Most often the deaf are not included in Sexual Reproductive Health programs due to misconceptions about their sexuality (WHO, 2009; Mprah, 2013). According to Awol and Lebisti (2019), a study conducted in three African countries namely Uganda, Ghana, and Zambia on contraceptive methods revealed that, people with disabilities (deaf inclusive) are perceived not to be sexually active hence they are HIV-free and having sex with them (women or girls with disabilities) can cure HIV infection.

Contraceptives are categorized into two; the barrier methods (examples are condoms, sponge) serve as a double purpose thus, preventing unintended pregnancies and the sexually transmitted infections (STIs) including HIV AIDS, and gonorrhoea whilst the non-barrier method (emergency pills) prevents only unwanted pregnancy.

Easy access, consistent and continuous utilization of contraceptives are promising strategies for averting unintended pregnancies, which singularly account for nearly all unsafe abortions (Ahinkora, Ameyaw & Seidu, 2020). When contraceptives such as condoms are properly used, they help reduce the risk of contracting STIs. Inadequate knowledge of contraceptives can become a resistance factor against their acceptance and usage. Likewise, high knowledge levels of contraceptives will not bring about any behavior changes unless contraceptives are available for adolescent's free choice (Komey, 2016).

The problem faced by adolescents who are deaf are not too different from their counterparts who are not deaf; they include teenage pregnancies, low knowledge, and usage of contraceptives. People who are deaf are less likely to have knowledge of and use contraceptive methods than people without disabilities. This is due to inadequate information on accessing their sexual reproductive health issues and the systemic factors include physical barriers in accessing health facilities, high cost of services, inadequate knowledge of service providers on how to communicate to deaf people, and poor interpretation skills of sign language (Kumi-Kyeremeh, Saidu & Darteh, 2020).

1.1 Statement of the Problem

At Kibi School for the deaf, teachers have not exposed and explained the use of contraceptives to students. Though the students might have learned this through some of the subjects they learn in school, the school has paid much attention to the female students because of the prevalence of teenage pregnancy among them.

The knowledge of contraceptive by female students may help them prevent teenage pregnancy, hence help them to achieve their academic goals (Mprah, 2013). Also having good knowledge of contraceptives create positive attitudes towards its usage. Students' inability to gain knowledge on contraceptive may lead to teenage pregnancy which may affect their academic and social life. At the Kibi School for the deaf, female students who become pregnant due to little or no knowledge on contraceptive have drop out of school. Thus, school dropout has become common for some female students. Such behavior has caused financial burden on the families of such students. An interaction between the researcher and some teachers in the school during her national service period (September,2018 to June,2019) revealed that little is known

about the female students' knowledge and use of contraceptives. Since females' education is paramount to the school and the nation as a whole, it necessary therefore to conduct a study to find the knowledge and use of contraceptive methods among the female students who are deaf at Kibi school for the deaf located in the Eastern region of Ghana.

1.2 Purpose of the Study

The purpose of the study therefore was to explore the knowledge and use of contraceptives methods among female students at Kibi school for the Deaf in the Eastern Region of Ghana.

1.3 Objectives of the Study

The objectives of the study were to;

1. Explore the knowledge of contraceptive methods among female students at Kibi school for the Deaf.
2. Investigate the types of contraceptive methods female students at Kibi school for the Deaf.
3. Explore how female students at Kibi school for the Deaf get access to contraceptive methods.
4. Find out the merits and demerits of contraceptive methods on the female students at Kibi school for the Deaf.

1.4 Research Questions

The following research questions were raised to guide the study;

1. What is the level of awareness of contraceptive methods among female students at Kibi school for the Deaf?
2. What are the types of contraceptive methods female students at Kibi school for the Deaf?
3. How do female students at Kibi school for the Deaf get access to contraceptive methods?
4. What are the merits and demerits of contraceptive methods use on the female students at Kibi school for the Deaf?

1.5 Significance of the Study

The findings of the study would reveal the level of students' knowledge about contraceptive methods at Kibi school for the Deaf in the Eastern Region of Ghana. This would help teachers and parents to educate students on contraceptive methods and their uses. It would help the executives of the Ghana National Association of Deaf (GNAD) to know the level of knowledge of the individuals who are deaf on contraceptives, in order to devise strategies to educate their members, especially the young ones on contraceptive methods. The results of this study would further reveal how students use the various contraceptives and which ones they use to inform parents and teachers on how to guide them on the appropriate ways of using the contraceptive methods when necessary.

Again, the outcome of the study would help the school authorities at Kibi school for the Deaf to know how students get access to the various contraceptives. This would inform the school authorities where the students get the contraceptives when they are

in school or at home, to tell students the right places to get the contraceptives or make some available to those students who may need them.

Finally, the findings of this study would be beneficial to the students at Kibi school for the Deaf and the general public because it would lay out the merits and demerits of contraceptive methods.

1.6 Delimitation of Study

Though there are seventeen (17) schools for the deaf and two (2) integrated and special schools across Ghana, Kibi School for the deaf was selected for this study. The school was selected because the proximity and easy access to information by the researcher.

1.7 Limitation of the Study

The study focused on only female students who are deaf in junior high school and are fourteen (14) years and above. Also, related literature for the study specific to the Ghanaian context was very scanty, as there was no known study to the researcher on knowledge and use of contraceptive methods among female deaf students in Ghana. All these challenges notwithstanding, the outcome of the study provides adequate information about contraceptive knowledge and use among the deaf that would guide access and use among them.

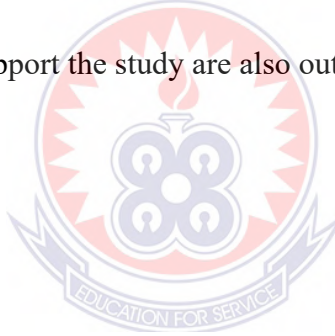
1.8 Definition of Terms

Contraceptive method: This is the use of drugs object to prevent pregnancy or contacting sexually transmitted diseases.

Deaf: Is an individual who does not hear sounds.

1.9 Organization of the Study

This research paper is made up of five (5) chapters. Chapter one consists of the introduction, which covers the background of the study, statement of the problem, research objectives and questions relating to the knowledge and use of contraceptive methods. Also, significance of the study, delimitation and limitation of the study and ends with definition of terms. Chapter two gives an account of theoretical review of literature of different authors on the subject matter. Chapter three focuses on the methodology; it gives an account of how the research was conducted and the methods and processes employed in arriving at the desired results. Chapter four covers result and discussions of the study. It gears the findings of each objective consecutively. Finally, the chapter gives detail the conclusions and recommendations from the study. The references used to support the study are also outlined at the end of the chapter.



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter provides a thorough review of literature related to the study. The review covers the theoretical framework of the study, the concept of the usage of contraceptives, the level of awareness of contraceptives among deaf students, the types of contraceptives used by deaf students, the access to contraceptives by deaf students, and the merits and demerits of the usage of contraceptives.

2.1 Theoretical Framework

Theoretical framework as defined by Eisenhart (1991) is a structure that guides research by relying on a formal theory built based on a well-established, logical explanation of specific events and relationships. Theories are a collection of concepts/ideas about some real-world area of concern/interest that helps explain, predict, and/or intervene with a phenomenon (Abend, 2008).

To provide better knowledge about the topic under study, the Health Believe Model propounded by Rosenstock et al (1994) served as the theoretical framework for this research.

The health belief model

The Health Belief Model (HBM) is one of the first theories developed to explain the process of change about health behavior originally developed in the 1950s and updated in the 1980s. The model, propounded by Hochbaum, Rosenstock, et al was to explain why medical screening programs offered by the U.S Public Health Service

to help people diagnose and prevent diseases failed (NCI, 2013). It is derived from psychological and behavioral theory.

According to the model, individual beliefs about health and health conditions play a role in determining their health-related behaviors. According to the theory, that a person's willingness to change their health behaviors is primarily due to their health perceptions. The underlying assumptions according to the HBM is that people will adopt healthy behaviors when they understand the severity of risks associated with a disease and the benefits of adopting the recommended behavior. This implies that for a person to engage in healthy behavior, they need to be aware of their risks for severe or fatal diseases and recognize that the benefits of behavior change outweigh probable barriers or other negative aspects of the recommended actions. The Health Believe Model looked at two aspects of people's health and behavior representations: threat perception and behavioral appraisal. Perceived susceptibility to health problems, as well as the severity of the effects was understood as two key beliefs (Wayne 2016).

On the other hand, the behavioral evaluation also consists of two distinct sets of beliefs, those concerning the benefits or efficacy of a recommended health behavior, and those concerning the costs of, or barriers to, enacting the behavior. In addition, the model proposed that cues to action can activate health behavior when appropriate beliefs are held. These 'cues' included a diverse series of prompts, including individual perceptions of symptoms, social influence, and health education campaigns. Simply put, the HBM is a health-specific social cognition based on six key components which include the perceived susceptibility, perceived severity, perceived beliefs, perceived barriers, cue to action, and self-efficacy (Wayne 2016).

Perceived susceptibility

This explains the individual's perception of whether they are at risk for contracting a specific illness or health problem. The possibility that a person will change their health behaviors to avoid a consequence depends on how serious they believe the consequences will be. Personal risk according to this component is one of the most powerful views in motivating individuals to adopt healthier behaviors. The greater the risk, the greater the likelihood to engage in behaviors to decrease the risk (Wayne 2016). Based on the component of perceived susceptibility, adolescent including students who are deaf are less likely to consider the use of contraceptives such as condoms when they think STDs are a minor inconvenience. That is why accessibility to messages about safe sex should be encouraged during class hours.

Perceived severity

According to Wayne 2016, this component involves the subjective feeling on whether the specific illness or health problem can be severe or life-threatening and therefore worthy of one's attention. People will not change their health behaviors unless they believe that they are at risk. Though the perception of seriousness is mostly based on medical information, it may also come from beliefs an individual hold about the difficulties a disease would create or the effects it would have on their lives in general. Here, the knowledge by the students living with disability about the consequences of Sexually Transmitted Infections (STIs) leading to a deteriorating health condition in the family or among their peers who may have been faced with societal stigmatization or dropped out of school will influence their decision to opt for the use of contraceptive. This component posits that those who do not think that they are at risk of acquiring HIV from unprotected intercourse are less likely to use a condom.

Perceived benefits

A person's perceptions of the gains of adopting recommended actions that would in due course reduce the risk for disease's severity, morbidity, and mortality. The perceived benefits construct holds the view that people tend to adopt healthier behaviors when they believe the new behavior will decrease their chances of developing a disease. It is however difficult to convince people to change a behavior if they will not benefit from that change. People do not want to give up something they enjoy if they do not also get something in return (Wayne 2016). This is to say that adolescents might not choose to practice safe sex if they do not see how, it could make their sex life better.

Perceived barriers

A Person's view or perceptions of the obstacles that stands in the way of behavior change. That is costs (economic cost & lifestyle sacrifices) of and obstacles to adopting recommended actions. Perceived barriers signify an individual's own evaluation of the hurdles impeding the adoption of new behavior. It is the most significant of all the constructs in determining behavior change. One major reason people do not change their health behaviors is that they think doing so is going to be hard. Changing your health behaviors can cost effort, money, and time. For a new behavior to be adopted, a person needs to believe its benefits outweigh the consequences of continuing the old behavior to overcome the barriers (Wayne 2016).

Cues to action

These are events, people, or things that move others to change their behavior. The cues to action may include public or social events that can signal the importance of taking action. They can also be anything from a blood pressure van being present at a

health fare, to seeing a condom poster on a train, to having a relative die of cancer. A cue to action is something that helps move someone from wanting to make a health change to actually making the change (Wayne 2016).

Self-efficacy

This is defined as the belief in one's own ability to do something. Self-efficacy represents an individual's confidence in his/her ability to perform and sustain the recommended behavior with little or no help from others. If an individual believes a new behavior is useful but does not think he/she is capable of doing it, the odds are that it may not be tried. The theory of the Health Belief Model is significant to the study because adolescents in recent years mature earlier than before, this has resulted in several negative implications, particularly affecting their reproductive abilities and sexual health (Wayne 2016). The consequences may become visible after many years considering the high rate of sexually transmitted diseases and the number of unplanned or undesired pregnancies in adolescents which calls for a solution.

Implications to the study

The health belief model is significant to the study because when adolescent female deaf students become aware of the consequences of having unprotected sex and have knowledge on contraceptive methods, the types of contraceptive methods available and how to use them and know how to have easy access to contraceptive methods, they will not risk themselves but rather opt for abstinence or use other contraceptive methods to be free from unwanted pregnancy, school dropout and contracting sexually transmitted infections. As a result, the knowledge and contraceptive used among deaf students are influenced by perceived barriers which are either propagated by the students, partners, friends, men, and those around the students such as parents,

relatives, teachers, and members of the social network. Such barriers act as a hindrance to contraceptive use among vulnerable populations and are further compounded by the existence of other service-related barriers.

2.2 Knowledge of Contraceptive Methods

A contraceptive method is defined as the intentional prevention of pregnancy through the various devices like; sexual practices, drugs, and surgical procedures. Some of these contraceptives also protect one from getting Sexually Transmitted Diseases (STDs) (Jain & Muralidhar, 2011). The Macmillan dictionary also defined contraceptives as drugs, methods or objects used for preventing a woman from becoming pregnant.

A knowledge construct is defined as a set of ideas, concepts or experiences acquired through the senses that allow a group or an individual to reach a higher level of reason. Adequate knowledge about sexuality and contraception is defined as the possession of training about sexuality and contraception that allows one to make informed decisions and pursue one's sexuality safely. To measure this level of knowledge to gauge the effectiveness of educational programmes, ad-hoc tools have been used, which have lacked a validation process to guarantee their validity and reliability. To live sexuality in a healthy way, it is necessary that youth have a high level of knowledge about sexuality and contraceptive methods and to measure that is necessary a valid and reliable tool (Sanz-Martoz et al, 2019).

The health and well-being of adolescents and their future children is critical to the economic fortunes of developing countries. Early and closely spaced pregnancies contribute to school dropout and limit the economic opportunities of young people. A key strategy to expand those opportunities is to improve access to contraceptives and

address the social and economic conditions that lead to early and closely spaced childbearing. Competent, empathetic and committed health service providers are the heart and soul of an adolescent responsive health service. They should also be knowledgeable about all methods of contraception, including emergency contraception. There is a growing body of research evidence and practical experience in what works and what does not in improving and sustaining improvements in the competencies, attitudes, and motivation, hence the performance of health service providers (Chandra-Mouli, 2020).

There is a growing interest in reproductive health of female adolescents has increased over the years. This is so because of the health implications associated with teenage pregnancy such as still births, unsafe abortions and other complications that may result in maternal or infant deaths (Magadi, 2006; Darko, 2016). Even though the risks associated with early pregnancies are known, contraceptives use among sexually active 15-19 years' adolescents are low (Kinaro et al., 2015; Darko, 2016). The current study focuses on adolescents that are sexually active whether married or not. It also seeks to establish the influence history of a previous birth and age first birth would have on utilization of contraceptives. Recent studies have suggested that an increase in contraceptive availability as well as the alternatives bring about an increment in contraceptive use especially among the adolescents. Overall, it is worthy to note the importance of understanding the predictors of contraceptive use among adolescents in Uganda so that friendly and workable programs are designed to scale up contraceptive utilization. Lack of knowledge, misperceptions, and exaggerated concerns about the safety of contraceptive methods are major barriers to contraceptive use (Nsubuga et al., 2015).

Having good knowledge reduces misconceptions and fears about contraceptives and create positive attitude towards its use. The more knowledge people have, the more likely they would accept and use of contraceptives (Biney, 2011; Mprah, 2013). Lindstorm and Hernandez (2006) cited in Mprah (2013), observed that lack of knowledge was commonly cited for unmet needs and limited choice of contraceptives amongst rural and urban migrants in Guatemala. Biney (2011) cited in Mprah (2013) reported that lack of knowledge or misunderstanding of contraceptives was the major reason for not using contraceptives amongst women in Ghana. It is worthy to point out the significant gap observed between knowledge and use of contraceptives, which is consistent with the results of other studies. This may be due to several factors including knowledge of where and how family planning methods could be obtained. Another factor contributing to the gap between knowledge and use of contraceptives is the myth surrounding the use of various methods and the female sex. Owing to several factors including societal norms and stigmatization, it is difficult in the Ghanaian setting for a young female to easily have access to contraceptives. It has also been reported that male sexual partners often may not accept a condom from their female counterparts (Sharma et al, 2021). Hence, females may be aware of various contraceptive methods, they are however limited in acquiring them and initiating their use.

Knowledge of what is required to increase adolescents' access to and use of contraception has also expanded. This is complicated, however, by the fact that findings from intervention research always reflect the realities of the specific settings in which programs are implemented, making it more difficult to replicate successful programs elsewhere (Badu et al., 2019). Moreover, adolescent sexual and reproductive health among the unmarried is often a sensitive and highly politicized

topic, creating opposition to interventions. Meanwhile, the needs of married adolescents are often overlooked or ignored because they lack knowledge about correct patient selection and contraindications. Improving health care provider and patient knowledge about contraceptive methods would improve access and allow for safer use. We see opposition to or neglect of contraceptive needs among adolescents in many settings, despite evidence on the needs of adolescents, the importance of investing in reducing unmet need, and experience with how best to make these investments (Greene & Merrick, 2015).

According to Britwum, Akorsu, Agbesinyale and Aikins (2017), a study was conducted in the central region of Ghana indicated that, pregnancy rates among adolescents between ages of 15 to 19 years, as the region record is noted to have recorded a 14.8% increase of teenage pregnancy from 2011 to 2012. A study by Boamah et al (2014) in Kintampo North and South districts of Ghana revealed that pregnant adolescents and adolescent mothers were higher than the national average. The maternal mortality ratios in adolescents are usually twice as high as those of women in their twenties (WHO, 2013). A study conducted in Kenya, on the perception and barrier to contraceptives use indicated that there were high levels of contraceptives knowledge among adolescents though about 43% had being using it. The study again revealed that the health workers who provided the contraceptives were bias, they administered the contraceptives based on the individual's age and knowledge of the various contraceptives and where they can access them (Darko, 2016).

Reproductive health is a common knowledge to adolescents but studies from different countries have shown that many adolescents are misinformed or lack deeper

understanding of contraception and contraceptive methods (Enuameh, et al., 2014; Darko, 2016). Studies have shown several factors account for this and some of these factors are fear to be embarrassed from the contraceptive providers and hearing negative effective stories from people who have used it. In Brazil poorly educated adolescents were found to be sexually active at a younger age with little knowledge about contraceptive methods (Darko, 2016).

A survey done by Bpas and Deafax with over 100 young deaf people and held a sex education session with 20 students to ask them about their experience of sex and relationships education (SRE), their knowledge of sexual health and contraception, and access to these services. The results suggest that much more needs to be done by both schools and healthcare providers to better support this group of young people. There neglection of the importance of the influence of community-based characteristics on use of modern contraceptives. Studies on the importance of examining community level factors in influencing contraceptive use are still limited. Teenagers often lack adequate knowledge about pregnancy prevention: one-third of male and female teens report that they did not receive formal education on birth control and two-thirds of males and one-half of females did not talk to a parent about contraception before age 18. After years of funding being limited to abstinence-only education, scientific evidence on whether educating adolescents about sexual behavior, contraception and STIs influences young people to engage in high-risk sexual behaviors is finally being considered. It is evident that neither the abstinence-only nor the ABC (abstinence, be faithful, use condoms) focus of the last few years has brought about the desired outcomes for adolescent sexual and reproductive health (Hindin & Fatusi, 2009). There has been a focus on abstinence-only sexuality education for young people in the despite research demonstrating its ineffectiveness in

increasing age of sexual debut and decreasing number of partners and other risky behavior. In contrast, data suggest the effectiveness of comprehensive sexuality education in achieving these outcomes. The emphasis on abstinence-only education may have in part led to widespread misperceptions of contraceptive effectiveness, mechanisms of action, and safety that can have an effect on contraceptive use and method selection (Ganle et al ,2020).

Additionally, many sexually active teens do not use contraception or use less effective methods. Among 15–19-year-olds, 26 percent of females and 18 percent of males did not use any method of contraception the first time they had sex. The most popular method of contraception for teens is the condom, yet less than half (48 percent) of males and only 28 percent of female’s report using condoms every time they had sex over the course of one year. Despite these high rates of unprotected sex, only eight percent of teens have used emergency contraception (EC). Thus, there is a need for improved knowledge of and access to all methods of contraception. A number of countries have made efforts to improve knowledge and use of EC among teens. France has taken a notably proactive approach, implementing a policy that enables nurses in both public and parochial high schools to distribute EC to students, along with counseling about pregnancy prevention, health risks, and STIs (Foster et al., 2016).

According to the Ghana Health Service report in 2014 on adolescent health services policy and strategy, the knowledge of contraceptives among female adolescents which the deaf are inclusive has been relatively high. Among 15-19 years old, knowledge of any of contraceptive has improved from 85.6 % in 1993 to 96.5% 2014. In the Upper East of Ghana, a study conducted among high school students indicated that the

adolescent girl did not believe in themselves enough to negotiate condom use. They would rather not be stigmatized as bad girls or cheater by their sexual partners than go get the condoms themselves (Rondini & Krugu, 2009; Darko, 2016).

Most adolescents are aware of various contraceptives methods but the method of choice is solely due to how well informed they are. Despite the acknowledgment of the relevance of meeting the reproductive health needs of young people and the high level of awareness amongst them, the rate of contraceptive use remains utterly deficient (Awusabo- Asare, Abane & Kumi-Kyereme, 2004; Yidana et al., 2015). Hence, whether or not actual contraceptive use would increase over time, depends on the knowledge people have of family planning methods and their attitudes towards its associated services (Longwe, Huisman & Smits, 2012). Many reviews have shown that adolescents who are 15 – 19-year-old and are sexually active, are unlikely to use contraceptives in spite of the risk in connection with early pregnancies (UNPF, 2001; Tetteh, 2013). Female adolescents who do not practice safe sex but are sexually active stand the risk of unintended pregnancies. According to Blanc et al (2009) cited in Nyarko (2015), married or unmarried young women experiment with contraceptive and are inconsistent with regard to its use. They further mention factors such as fear, embarrassment, cost and lack of knowledge as barriers to the use of contraceptive methods among female adolescents.

A study carried out in Ghana by Hagan and Buxton (2012) found that there was high level of awareness among adolescents about contraceptives and where to obtain them. The results of their study showed that 21.0% of adolescents in some selected Senior High Schools with knowledge about contraceptives were users and 82.0% of them who were sexually active were non-users. More so, it showed that 60% of participants

obtained knowledge about contraceptives from the media and 30% from their peers; although nearly 32% of them thought contraceptives were only for adults who were married. It cited condoms as the most common contraceptive used; which is also true for a study conducted in Kintampo, where 86.6% of female adolescents had knowledge of at least one method of contraceptive. Although the literature reviewed has revealed that increasing adolescent's knowledge about contraceptives and access to contraceptives are very vital interventions in reducing early teenage pregnancies, other critical demographic and socio-economic factors play a vital role in determining the extent to which they decide whether or not to take steps to prevent pregnancies. (Boamah et al., 2014). The findings of the study showed a significant relationship between consistent contraceptive use and discussions of contraceptive use among adolescents. It found out that about 22% of adolescents consistently used contraceptives and amongst them those who discussed contraceptive use before their first sexual encounter were more likely to use contraceptives consistently compared to those who had never had any discussion. A study by Yidana et al (2015) of 400 adolescent men and women of reproductive age in Northern Ghana, showed that, most adolescents desired to use contraceptives to prevent pregnancies or to continue their education.

A research conducted in Ghana by Mprah (2013) indicated that 30% of deaf people in Ghana have knowledge on contraceptives but the usage is very low especially the adults. This implies that they involve themselves in unprotected sex hence they are at risk of contracting Sexually Transmitted Diseases (STDs). It was also found that despite the low level of knowledge and usage of contraceptive by deaf people, contraception knowledge appeared to depend on the type of contraception, age and sex (female/male). The consequences of early sexual activity without contraception

are well known. These adolescents are at risk of getting pregnant at an earlier age, thus increasing the chances that they will drop out of and never return to school, limiting them to lower-paying job opportunities and a future as low-income, single parents themselves.

According to Michelle et al (2009) the high rates of HIV prevalence come along with early sexual debut and multiple partnerships and have led researchers to conclude that there is a need for sexual and reproductive health education comprising more than messages promoting abstinence. Well-designed impact evaluations are needed to provide evidence about the quality and content of interventions. Many of the adolescents at greatest risk are missed by school-based programs because they are no longer in school.

In Ghana, it has been shown that adolescents (12-19 years old) are aware of at least one method of contraception. About 52.7% of females whereas 52.5% of males had knowledge about the use of pills whereas IUD was known by 23% and 23.1% of females and males respectively. About 56.5% of females and 55.5% of males were also familiar with the injectable however only 18.7% females and 17.6% males knew about it. The Emergency Contraceptive Pill was known to 18.4% and 20.1% for females and males respectively. The male condom had the highest score of 87.9% and 90.6% among females and males, correspondingly. The least contraceptive known among adolescents was Foam/Jelly 11.8% and 15% for females and males respectively. The study further revealed that, 60% of females and 58.5% of males have discussed contraceptives with their partners (Awusabo-Asare & Biddlecom, 2006; Darko, 2014).

A cross-sectional study conducted in Kintampo by Boamah et al in 2014 revealed about 89% of adolescents who were interviewed knew about at least one contraceptive method. Most of participants (84%) mentioned the male condom. Apart from condoms, a spontaneous response to knowledge of other modern contraceptive methods, such as the pill (31.4%; 249/793), injection (25.5%; 203/793), and emergency contraceptives (5.6%; 45/793), among others, was relatively lower. Knowledge of at least one contraceptive method was highest among males when compared to females (92.1% versus 86.6%) respectively. Knowledge of at least one contraceptive method was high among adolescents who had formal education (beginning at the senior high school levels and beyond) (97.4%) compared to adolescents who had only primary/junior high (87.5%) education and adolescents who had no formal education (90%). Knowledge of at least one contraceptive method was high (>80%) among all ethnic groups of adolescents.

Knowledge about modern and traditional contraception has changed over the decade and half ago. Whereas the latter was popular among Ghanaians, the former is now popular even though users of contraceptives use the traditional methods (Hoque, 2007; Senaman, 2016). In a cross-sectional in Kinshasa in DR Congo, condom was the most widely known modern contraceptive method since it was cited by 43% of women; the pill was by only 28%, injectable 16.2% IUD 8%, spermicidal foam 2%, and the diaphragm by less than 2%. Educated and sexually active youth have wide spread knowledge of contraceptives and this background correlates number of methods known (Osaemwenkha, 2004; Senaman, 2016). Such a wide knowledge does not necessarily mean that such persons have adequate exposure to the use of contraceptives because other decision-making influences could determine its use or otherwise.

Knowledge of modern contraceptives is considered as one of the significant factors associated with effective use of the methods. In order for the individual to make informed decision about family planning, they need to have adequate information about the available methods of contraceptives. It is expected that the more people know about the various contraceptives and accept them, the more they will utilize them. According to Kabagenyi, Habaasa and Rutaremwa (2016), despite the higher education among adolescents facilitates acquisition of knowledge on particular methods as well as how to acquire these contraceptive products. Studies have shown that sex education among adolescents plays an important role in increasing knowledge and empowering young people, especially against unwanted pregnancy. This study has also revealed lack of capacity among adolescents to negotiate for safer sex especially from the old persons.

Biney (2011) conducted a study in the Greater Accra Region of Ghana on contraceptive and the result indicated that lack of knowledge on contraceptives led to the failure of its use hence resulted in unplanned pregnancies and abortion. A study conducted in 2016 by Ahekan in Asokore-Mampong Municipality in Ashanti Region of Ghana among female head porters on modern contraceptives revealed, the participants knew at least three types of contraceptives which include the pill, the injectable and the implants. Research conducted by Akudugu and Akum (2019) in Bawku municipality in the Northern Region of Ghana on contraceptive knowledge and use among female adolescents indicated that the knowledge on contraceptive is still not as high as expected among the late adolescents in the municipality, therefore health authorities and relevant stakeholders must identify aggressive advocacy on friendly adolescents' reproductive health (ARH) services in school. According to Michelle et al. (2009), a research conducted in Thailand revealed that students who

were exposed to a comprehensive sex education program had greater knowledge than other students, and were more likely to refuse sex and to decrease frequency of sex.

A research conducted by Okech, Wawire and Mburu (2011) revealed that despite the various strategies and policies, put together by the Kenya government and other stakeholders, total fertility rate still remains high at 4.6 percent, while unmet need for family planning are estimated at 24 percent, respectively. The study revealed low usage of contraceptives compared to the national level. Use of the services varied in terms of demographic and socioeconomic factors of the woman and also the woman's perception in terms of the facility/provider factors such quality, friendliness of staff and promotion. Various factors accounted for the low use of family planning services. These included partner's approval, quality of the services, friendliness of the staff administering the services and the woman's knowledge about family planning services.

Kathpalia (2018) conducted a study on the awareness about contraceptives, their benefits and side effects among Indian Armed Forces married individuals and used Indian Armed Forces personnel to represent a cross section of true Indian population. The cross-sectional study was conducted wherein both partners were included using the qualitative method but they replied to the questionnaire independently, without consulting each other. They had to answer questions regarding their knowledge, practice and beliefs about contraceptives. The study which sampled 900 women and 560 men had almost all the individuals mentioned some information about contraception, male condom was the most common contraceptive mentioned. About 2.1% of women and 1.2% of men did not mention any contraceptive. About 87% of women and 91% of men had mentioned two contraceptives. Data gathered by the

researcher also revealed past use of contraceptive was reasonably high, with 61.6% of women and 57.4% of men had used contraception in the past. About 50.8% women and 26.3% men were either undecided or were not keen to use any contraceptive in future. About 82% believed that contraceptives methods had some benefits. Findings from the study further showed that, despite unwillingness to conceive, most of the couples do not use any method of contraception. The intention of a man to use the use of modern contraceptives depends on his desire for fewer children were found to be associated with exposure to media message about family planning (Chandra-Mouli,2020).

Knowledge and use of contraceptives among the youth showed very wide variation among region of Sub-Saharan Africa than other regions of the world (Ugwu, 2012). In confirmation of this, a study among the youth aged 15-19 in Ghana, revealed that 85% knows at least one method of contraception while only 17% of sexually active youth use contraceptives, the rate for any method was 27% (Ugwu, 2012). A similar study in Nigeria has revealed that over 60% of urban youth have heard of at least one method but only 4.7% of active youth practice contraceptives of which 3.5% of them practice modern methods (Ugwu, 2012). Irrespective of the age definition this target group is often faced with transitional changes that are biological, psychological and economic. These changes make coping mechanisms rather hard for especially the female adolescents resulting in unintended pregnancies and induced abortions, respectively with the associated consequences. Adolescence stage is often when individuals begin to explore their sexuality and sexual relationships. This expression of sexual desire among the adolescents is influenced by several factors including family values, culture and religion among others. Several studies have concluded that allowing adolescents to have full access to contraceptives remains the best approach

of ensuring a healthy reproductive living. Such approach is not to be taken as a form of promoting promiscuity but rather a means of minimizing abortion, morbidity and mortality among the adolescents (Kabagenyi, Habaasa & Rutaremwa, 2016). Gyan (2013) attested that in Ghana, about 30% of all pregnancies are unintended, with a significantly higher prevalence among adolescents (70%) compared with adults. Adolescents who become pregnant face a multitude of health, educational and social consequences including societal disapproval, which mostly results in stigma, discrimination and social rejection. Unwanted pregnancy among young females also resulted in high school drop-out rates and truncates future development. In a study conducted in Chorkor, a fishing community in Greater Accra Region Ghanas', 86% of the 50 teenage pregnant girls who were involved in the study had dropped out of school. It is noteworthy that most unwanted pregnancies end in induced abortions, with a significant number being unsafe abortions. In Ghana, because abortion is not entirely permitted by law—unless the pregnancy was as a result of rape, defilement or incest, or the pregnancy poses a significant risk to the mother and or unborn baby, unsafe abortion is common. Contraception use is undoubtedly very important in preventing unwanted pregnancies, unsafe abortions and abortion-related complications.

According to Oppong et al., (2021), there is a significant gap between knowledge and use of contraceptives among adolescents. While intensifying knowledge of adolescents and young women on contraceptives, adolescent-friendly corners should be established at vantage points to increase utilization and to prevent societal stigma on young women who access contraceptives services. Knowledge of contraceptive methods is almost universal among sexually active unmarried adolescent girls and young women in Ghana. However, this does not reflect on the use of these methods.

To address the gap in contraceptive use among young women, the Ghana Health Service and other relevant stakeholders should ensure that contraceptive services are available and easily accessible in Ghana. Also, outreach contraceptive services in Ghana should be intensified and expanded to places where adolescents and young women can easily access the services without fear of stigma by society. Advocate for the setting up of confidential, friendly and non-judgmental adolescent reproductive health centres in the community and different levels of the educational institutions in Ghana. More gender-transformative approaches, including thoughtful collaborations with other sectors (eg, education, local government), should be explored (Nsubuga et al., 2015).

However, even when communication support is provided during the lessons, a lack of time to fully communicate the content can be problematic. This appears particularly pertinent with regards to SRE, as many young people lack the basic vocabulary around the topic, and therefore it is vital that sufficient time is given not just for relaying but also explaining information. Recent survey by the Charity Sign Health found that 70% of deaf people do not want to go the health centers for contraceptive methods mainly because there was no interpreter. Problems around communication also appear to be a significant issue for young deaf people accessing the sexual and reproductive healthcare services they need. Nearly half (42%) of those surveyed said worries about communicating with medical staff would stop them getting the information they need about sex and pregnancy, and over a third (36%) raised difficulties understanding written medical information. They also said they were more likely to use internet search engines than go to a sexual health clinic if they had a problem.

2.3 Types of Contraceptives Methods

Minimizing the likelihood of unintended pregnancy depends on maximizing user satisfaction, user effectiveness and continuation of use, by providing the method that is truly the method of choice for that individual. There are many different types of contraceptives, but not all are suitable for all situations. The most applicable contraceptive methods for either birth control or prevention from STIs depends on the individual's age, health status, sexual activeness, sex partners and the desire number of children to have. According to Chandra-Mouli (2020), adolescent pregnancy has clearly known causes, and serious health, social, and economic consequences. Correct and consistent use of contraception can contribute to reducing adolescent pregnancy, as part of a wider strategy (as discussed earlier). In 2011, the World Health Organization (WHO) and the United Nations Population Fund (UNFPA) published guidelines on preventing adolescent pregnancy and poor reproductive outcomes in developing countries, which set out clear recommendations, on increasing access to and uptake of contraception, based on the studies of the effectiveness of research studies and projects from around to work. Motivation to use contraceptives is low in the country, as pronatalism is one of the reasons for high fertility and low contraceptive prevalence. Demographic factors influencing use of contraceptives include age, parity, marital status and marriage type. (Federal Ministry of Health, 2008; Kabagenyi et al., 2016).

Contraceptives can be grouped into modern and traditional methods. The modern methods include; barrier method (female and male condoms as well as diaphragm), hormonal methods (pills, injectable and implants), Intra Uterine Device (IUD), male and female sterilization (DHHS, 2011; PPFA, 2012). The traditional methods, on the

other hand include; periodic abstinence method, and withdrawal method (coitus interruptus) (Stewart, McNamee & Harvey, 2013; Darko, 2016).

Modern contraception methods

Hubacher and Trussell (2015) defined modern contraceptive as the product or medical procedure that interferes with reproduction from acts of sexual intercourse. Modern contraceptive methods were invented so individuals who are sexually active could act on natural impulses with diminished risks of pregnancy. These are technological advances designed to overcome biology. Modern contraceptives have been categorized into barrier, hormonal and non-hormonal. Some of the contraceptives can be barrier and/ or hormonal or non-hormonal at the same time (Charlie & Tonyas, 2018).

Barrier contraceptive method

Barrier contraceptive method is the use of physical or chemical substance to prevent sperm from entering a woman's uterus (reaching the fertile egg) hence prevent pregnancy (Casey, 2020).

Diaphragms

Diaphragm is a silicone dome with a flexible rim shallow cup which is inserted in the vaginal before sexual intercourse and blocks sperm from entering the uterus. The diaphragm needs to stay inside the vagina for 6 to 8 hours before it can be removed after intercourse in order for the spermatozoa to be incapacitated in the acidic vaginal environment. It must be properly inserted by a health-care provider. It should be cleaned and stored for reuse. this is reusable for a year or two (Stewart, 2013).

Spermicides

Vaginal spermicides are chemical substances that are inserted deep in the vagina. It is available in gels, foams, jelly, vaginal contraceptive film (VCF), creams and suppositories. They work by disrupting the sperm membrane to kill them. It can be used alone or in combination with a diaphragm. A spermicide should be inserted into the vagina close to the uterus not more than 30 minutes to intercourse and should be in place 6 to 8 hours. It prevents pregnancy not STIs and may cause allergic reactions (Larissa, 2019).

Contraceptive sponges

These are small foam /pillow-shaped polyurethane sponge filled with spermicide. The soft sponge is inserted into the vagina before intercourse to form a barrier against the sperm entering the uterus. The spermicide in the sponge kills the sperm cells and it should be left in the vagina after the intercourse and then removed within 30 hours after intercourse to prevent pregnancy (Braizer, 2018).

Condoms

Condoms are the most popular contraceptive method, easy to get and relatively easy to use. Apart from abstinence it is the only contraceptive method that can provide some protection against STIs and pregnancy. There are two types of condom and they are the male and the female condom (Lashkari, 2019).

Male condom

The male condom is a single-use sheath that is rolled in the erect penis before intercourse and collects ejaculate and pre-ejaculate secretions in the space at its tip. The use of male condom may interrupt sexual activity and may reduce sensation. It comes in different sizes, colors and in flavors (Lashkari, 2019).

Female condom

The female condom is a loose-fitting lubricated polyurethane sheath with a flexible ring at each end. It is inserted into the vagina prior to initiation of sexual activity and prevents the transmission of bacterial and possibly viral STDs. It is available in a single size and recommended for single use only. Allergy and irritation are very rare, and additional water-oil based lubricant can be used if required. The female condoms are quite slippery so practice before intercourse may be useful (Mayo clinic, 2020).

Cervical caps

These are a thin silicone cup that is inserted into the vagina before intercourse to block sperms from entering the uterus. These caps are quite like a diaphragm but are smaller and are more rigid. It can be cleaned and reused for two years before it needs to be replaced. Cervical caps are often laced with spermicide and needs to stay in place for 6 to 8 hours after intercourse to prevent pregnancy (Braizer, 2018).

Hormonal contraceptive methods

Hormonal contraceptive methods are used to regulate or stop ovulation and prevent pregnancy. Hormones released into the bloodstream which is responsible for directing the reproductive organs. Ovulation is a direct result of hormonal release, as is the production of sperms. Hormones can be introduced into the body through various methods (Casey, 2020).

Vaginal ring

The contraceptive vaginal ring is flexible, about two inches in diameter, plastic ring that releases a low dose of progestin and estrogen. These hormones are absorbed into the bloodstream through the vagina walls and they prevent ovulation and thicken the

cervical mucus, so that sperms cannot move easily. The ring is inserted deep into the vagina using a finger, where it continually releases hormones for three (3) weeks, it is removed on the fourth week to allow menstruation and reinserts new ring seven (7) days later (Braizer, 2018).

Contraceptive skin patch

Skin patch can also be called transdermal patch. This is about 5 cm by 5cm in size and very thin plastic patch that sticks to the skin and releases hormones through the skin into the bloodstream. It can be placed on the woman's behind, belly, the outside of her upper arm or anywhere part of her upper body with the exception of her breasts. It lasts about a week and needs to be reapplied for three (3) weeks and no patch is worn on the fourth week to enable menstruation (Braizer, 2018).

Injection

The contraceptive injection can also be called "the shot", it is a progestin-only, long-acting reversible birth control drug given in the arm or buttocks once every three (3) months. This inhibits ovulation and also increases the viscosity of the cervical secretions to form a barrier to sperms. Menstrual cycle may become irregular, spotting or cease altogether as long as the injectable is being used. Subsequent injections should not be delayed for more than two (2) weeks from the prescribed date. It does not prevent STIs (Braizer, 2018).

Emergency Pills

These pills contain two (2) hormones which are estrogen and progestin. The hormones stop the release of the egg/ovulation and make the lining of the uterus thinner. These pills are taken either as a single dose or two doses twelve (12) hours apart, that intended for use in the event of unprotected intercourse. Pregnancy can

occur if the pills are taken after ovulation or if the woman has unprotected sex in the same cycle (Lashkari, 2019).

Hormone-Releasing Coils

Hormones-releasing coils are made up of a T-shaped plastic device and a string that is used to pull them out. It can also be called intrauterine devices (IUDs). They contain and continuously release the hormone levonorgestrel, which is absorbed by the lining of the womb. This hormone stops the lining of the womb from building up, which means that any fertilized eggs are not able to become embedded in the lining of the womb. It also makes the mucus in the cervix thicker and stickier, preventing sperm from getting into the womb. It can be remaining at the cervix till the woman wants to get conceive. This method is done surgically by a health care provider. There are two types of hormone –releasing coils (Braizer, 2018).

Hormonal IUD

This type of IUD slowly releases small amount if the hormone progesterin to stop sperm from reaching the fertilized egg by thickening the cervical mucus and thinning the wall of the uterus. It can also prevent ovulation. The hormonal IUD can be used for five (5) years (Braizer, 2018).

Copper IUD

The copper inserted into the uterus releases a hormone that causes an inflammation reaction. This prevents the sperm from reaching the egg and, subsequently, allowing fertilization to take place. It can be used for five (5) to twelve (12) years. It is reversible method (Braizer, 2018).

Sterilization method

This is a permanent method of birth control. This is done for those who desire permanent contraception, with no future possibility of having children. It is performed surgically and are therefore often extraordinarily difficult to reverse (Encyclopedia Britannica, 2019).

Female sterilization

The sterilization procedures for women are called tubal ligation or tubectomy. This is a permanent surgical method in which the fallopian tubes are cut and ends tied to prevent the sperms from meeting the fertilized eggs. This method requires only one day of hospitalization and can be performed at any time. Female sterilization is also known as tubal ligation and is done by occluding or disrupting fallopian tubal patency to prevent the sperm fertilizing the egg (Stewart et al., 2013). It can be done by making incision above the pubic hairline and taking hold of the fallopian tubes which are then tied off. It can also be done by making a smaller incision, and with the aid of a laparoscope the fallopian tubes are tied off. The male sterilization or vasectomy involves cutting and tying off the tubes that lead each testicle to the penis. This prevents sperms produced from leaving the testicles to the penis to fertilize an ovum during unprotected sex (Encyclopedia Britannica, 2019).

Traditional methods

These methods are also known as natural methods and it has been used by the ancestors for a long time in child spacing. It does not involve any type of device or medication (Stewart et al., 2013).

Withdrawal /coitus interruptus

This is when the man removes the penis from the vagina so that ejaculation occurs outside the vagina, this prevents semen from entering the woman in order to prevent pregnancy. It is the oldest contraceptive method known to many people. The man needs to be extra careful on how to control over his ejaculation (Stewart et al., 2013).

Lactational amenorrhea method (LAM)

In this method, the woman uses breastfeeding for contraception. Nursing women secrete hormones that prevent conception for about six (6) months. During breastfeeding, the resumption of ovulation postpartum is delayed and this can be used to prevent conception as long as the mother fully or nearly fully breastfeeds and remains amenorrhoeic. When these two conditions are fulfilled, breastfeeding provides more than 98 percent protection from conception (Stewart et al., 2013).

Periodic abstinence method

This method requires the woman to know her fertile and infertile days so as to know when is safe to have sex. Sperm can survive for five (5) days in the uterus, so intercourse during the safe periods can result in conception (Stewart et al., 2013). A research conducted by Potasse et al. (2021) revealed that many communities in Africa still use tea and herbs as a traditional method of contraceptive.

The choice of contraceptives by sexually active unmarried adolescents and young women in Ghana is different from the choice of contraceptives among all women of reproductive age. For modern contraceptives, among all women of reproductive age, injectables (6.0%) and implants (5.3%) are the most used methods. However, among sexually active unmarried adolescents and young women, emergency contraception (2.2%) and male condom (7.2%) are the most used modern contraceptive methods.

Emergency contraception appears to be a popular contraceptive method among young women in Ghana. Among participants between 20 and 24 years, emergency contraception was the most used modern contraceptive method (9.3%). Other studies in Ghana have also reported high emergency contraception use among adolescents and young women. A qualitative study on emergency contraception use among young unmarried women in Ghana's capital found the periodic abstinence method to be the most preferred and most used (Keogh et al., 2021).

Several other factors have been attributed to the nonuse of contraceptives among sexually active unmarried young women. This includes lack of education on how to use contraceptives and their potential side effects. Studies have reported that some women are less motivated to use contraceptives because of their perception of the risk and side effects of some of the methods. Recent studies in central Ghana revealed that sexually active adolescents seeking contraceptives are stigmatized and perceived as bad or spoilt kids. Another barrier to contraceptive use is judgmental healthcare providers, who may deny adolescents contraceptive services if they feel adolescents 'are not old enough' or are unmarried. Adolescents are thus shy to access contraceptives (Gyan, 2013).

A study in Kenya revealed that 90% of Kenyan high school students knew at least one method, 49% of male and 43% of female students ever used contraceptives (Ugwu, 2012). The same study also revealed an increase in contraceptive use from 25% versus 28% during the first to 31% versus 29% during the last intercourse among male and female students respectively. However, only 11% of users considered themselves as frequent users (Ugwu, 2012).

The use of modern contraceptives has thus been identified as one of the main interventions to reduce the negative effects of early child-bearing. Modern contraceptive methods have proven to be more scientifically effective at (scientifically effective at) preventing unwanted pregnancies than the traditional methods (Aviisah, Dery & Guure, 2018). Ngome and Odimegwu (2014), conducted a study to investigate the social context of adolescent women's use of modern contraceptives on Zimbabwe. The study revealed that despite everything, there has been concern of an increasing unmet need for contraception among adolescent during the last decade and a half. Quality of reproductive health and access to health care services of the community in which an adolescent woman lives tend to modify individual level behavioral factors. Building on this, we explore the level and influences of contextual determinants of contraceptive use among the adolescents. Unmet need for contraception among married adolescent women increased from 13% during Zimbabwe Demographic Health Survey (ZDHS) to 18.5% during the 2010/11 ZDHS whereas it increased from 41% to 53% among the unmarried during the same period. Therefore, the need to understand factors influencing contraceptive use among adolescent women becomes crucial to inform reproductive health intervention in Zimbabwe. There are 25 million teenagers in the United States, 4 million of whom are sexually active. More than 1 million females aged 15 to 19 years become pregnant each year, and the vast majority of these pregnancies are unintended. Fifty percent of young women have sex by age 17.4 years, and 50% of male teens report having intercourse by age 16.6 years. Also, by their 18th birthday, 56% of female adolescents and 73% of male adolescents have made their sexual debut ("coitarche"). Factors that increase the likelihood of early sexual activity in female teens include lower socioeconomic status, living in a single parent home, engaging in other risky

behaviors such as alcohol or drug consumption, and having peers that are already sexually active. In young men and African-American women, the pace and timing of pubertal development is also a strong predictor. Contraceptive prevalence in the developing world has risen dramatically over the past four decades, from about 10 percent of women in 1965 to about 60 percent in 2000 (Malarcher, 2010). In Asia and Latin America, contraceptive prevalence is now at 71 percent and 64 percent, respectively, indicating that much of the demand for contraception has been met.

However, contraceptive use in Africa is low. Contraceptive prevalence has grown more slowly in Africa, where use of any method is 27 percent and most couples use family planning to space rather than limit births (USAID, 2004; Asimwe, Ndugga & Mushomi, 2013). There is a need to understand individual level factors influencing the uptake of modern contraceptives. In particular, socioeconomic and demographic factors such as residence, education, age, economic status, parity, access to media, autonomy, desire for children, marital status have been associated with the use of modern contraceptives. Level of education is a predictor of socioeconomic status, which correlates with contraceptive use. The educational level of a woman can also influence her acceptance and use of modern contraceptive methods. A study conducted in Bangladesh on prevalence and determinants of contraceptive use among employed and unemployed women revealed that employed women with high educational levels had a marked increased probability of contraceptive use compared to illiterates. A study done in Nigeria by Igbodekwe, Oladimeji, Adeoye, Akpa and Lawson (2014), revealed that women with higher educational level were four times more likely to use modern contraceptive compared to those with lower educational attainment. Aviiisah et al (2018) conducted a study in Ghana and the results indicated there are multiple cox proportional hazards model analysis identified place on

residence and educational level of a woman as strong predictors of the use of modern contraceptive. Modern contraceptive use is increasing among rural residence. Also, women who are in formal occupations are more likely to use modern contraceptives than their counterparts who are in less formal occupations. Women of lower socioeconomic status have lower uptake rates of contraceptives. A study by Sharma et al. (2021) indicated that there is high use of contraceptives among participants with secondary education compared with those with primary education can be attributed to how informed participants with higher education are about the benefits of contraceptive use. Education also empowers women to make better decisions concerning their reproductive health. Participants who have been pregnant in the past may have already experienced the consequences of non-use of contraceptives and may have learnt their lessons. Also, in Ghana, education on contraceptive use is part of the services provided to pregnant women during antenatal care attendance. As such, participants who have ever been pregnant may have been educated on the importance of contraceptive use and may also know where and how contraceptives could be obtained. Other studies in Ghana on adolescent sexual and reproductive health have shown that most young women who get pregnant wished they were educated on contraceptive use before the pregnancy. This emphasizes the need to make family planning or contraceptive use available for all ages. Independent of socioeconomic factors, knowledge of contraceptives is a determinant of contraceptive use. Exposure to mass media has strong effects on attitudes towards family planning through ideation, which has been found to contribute to observed fertility decline (Ibisomi, 2014; Chandra-Mouli, 2020). Non-use of contraceptive is often associated with unwanted pregnancy, which has deleterious consequences on young females, which include dropping out of school, which result in truncation of future

development. Unwanted pregnancy often ends in induced abortion, with a significant number being unsafe abortions. Unsafe abortion is widespread among adolescents in Ghana, and it contributes significantly to the burden of morbidity and mortality in the country; about 35% of all women who die as a result of unsafe abortion in Ghana are adolescents. To this end, promoting contraceptive use among adolescents and young girls, as well as ensuring the availability of quality post abortion contraception is undoubtedly very important. Apart from the fact that promoting contraceptive use contributes to achieving international targets, it also prevents unwanted pregnancies, unsafe abortions and abortion-related complications. In recognizing the need to promote and increase contraceptive use in Ghana, the government of Ghana through the 2012 National Health Insurance Act authorized that family planning should be free under its National Health Insurance Scheme. However, to date, this has still not been implemented. In the meantime, the government has increased its financial contribution towards the procurement of family planning commodities, and currently, purchases about 25% of all family planning commodities in the country. Also, more health service providers have been trained in Adolescent and Youth-friendly Health Services (Gyan, 2013).

In Nigeria, use of modern contraceptives, the intention to use the man desire for fewer children were found to be associated with exposure to media message about family planning (Chandra-Mouli, 2020). Partner communication has also been identified as an important factor influencing contraceptive use. Women whose partners disapprove of modern contraceptive practice are more likely not to use modern contraceptives. Psychosocial factors such as intimate partner violence have also been associated with non-use of contraception among women (Ngome & Odimegwu, 2014).

A study conducted in Ghana by Watson (2017), it has been shown that adolescents (12-19 years old) are aware of at least one method of contraception. About 52.7% of females whereas 52.5% of males had knowledge about the use of pills whereas IUD was known by 23% and 23.1% of females and males respectively. 56.5% of females and 55.5% of males were also familiar with the injectable however only 18.7% females and 17.6% males knew about it. The Emergency Contraceptive Pill was known to 18.4% and 20.1% for females and males respectively. The male condom had the highest score of 87.9% and 90.6% among females and males, correspondingly. The least contraceptive known among adolescents was Foam/Jelly 11.8% and 15% for females and males respectively. The study further revealed that, 60% of females and 58.5% of males have discussed contraceptives with their partners (Awusabo-Asare & Biddlecom 2006; Darko, 2016). Despite the acknowledged health and socioeconomic benefits of use of modern contraceptives, their use remains persistently low, with wide variations in pattern of use. A study done in Ghana Aviiisah et al. (2018), showed that, there is a gradual increase in the use of modern contraceptive among women living in the rural areas. The study also found higher use of modern contraceptives among Christian women than among Muslim women, even though it was noticed that there is a gradual use among Muslim women too. Some factors associated with the use of modern contraceptive methods in Ghana are: place of residence and educational level, source of information, education from healthcare providers, religion, age income level and the desire to have children. Keogh, Otupiri, Castillo and Polis (2021) stated that peer influence is another factor affecting the use of modern contraceptive methods. Thus, friends had more influence in the use among young women than the older women. Evidence from Sub-Saharan Africa and Latin America suggests that condom use has increased among adolescents,

but levels of use are still not sufficient to substantially reduce the spread of HIV (Hindin & Fatusi, 2009). The low contraceptive use has been attributed to a mixture of socioeconomic and cultural factors impeding access to modern family planning methods. According to Wulifa et al. (2017), the use of modern contraceptives, particularly among married youth in Sub-Saharan Africa, is very low. Women who are married, even as adolescents, are expected to have children right away. In many developing countries, particularly Sub-Saharan Africa, women's gender identities and social status are tied to motherhood and childlessness is highly stigmatized.

Family planning saves lives and has long been considered a key aspect to socioeconomic development. Although this is widely acknowledged and well – documented, in recent years the attention and resources directed toward improving family planning programs in developing countries have been decreasing, even though need remains high. By one estimate, satisfying the unmet need for contraceptive services in developing countries would avert 52 million unintended pregnancies a year, thereby saving 1.5 million lives and preventing 505,000 children from losing their mothers (Singh et al., 2003; Greene & Merrick, 2015). Family planning has lost focus amid recent shifts in international development strategies and priorities. Yet there are 201 million women in developing countries who need but are not using modern contraception: 137 million women at risk of unintended pregnancy are not using any method, and an additional 64 million are relying on a less effective traditional method (Singh et al., 2003; Greene & Merrick, 2015). Many vulnerable groups, including the poor and adolescents, do not have ready access to good-quality family planning services. And the continually growing number of contraceptive users is straining the ability of family planning programs to meet their needs. The dramatic reduction in unintended pregnancies would spare women and their families the

adverse consequences of early child-bearing, reap savings in maternal and child health care, and boost women's education and economic prospects (Singh et al., 2003; Greene & Merrick, 2015).

Most sexually active adolescent girls in developing countries do not use contraception despite wanting to prevent pregnancy. Recent data from several countries in sub-Saharan Africa show that only a third of unmarried, sexually active girls 15 to 19 years old are using contraception, with most of the others indicating an unmet need for methods to delay or space pregnancy. Low contraceptive use seems to continue to prevail in spite of governments' explicit efforts to promote family planning measures as a means of curbing further population growth. A research conducted by Chandra-Mouli (2020) suggested that in developing regions, 38 million adolescent girls need contraceptives to avoid an unintended pregnancy, but more than half are not using an effective method. It noted that: "Meeting the unmet need for modern contraception of women aged 15–19 would reduce unintended pregnancies among this group by 6 million annually. Hindin et al. (2009) stated that, the use of modern contraceptives, particularly among married youth in Sub-Saharan Africa, is very low, women who are married, even as adolescents are expected to have children right away. In many developing countries, particularly Sub-Saharan Africa, women's gender identities and social status are tied to motherhood and childlessness is highly stigmatized. Among married adolescent girls 15 to 19 years old, unmet need for contraception has been estimated at 62 percent in Ghana, 57 percent in Haiti, and 42 percent in Nepal. The data clearly show a gap between the reproductive intentions of adolescent girls—whether married or unmarried—and their use of contraception. In Nigeria, use of modern contraceptives, the intention to use the man desire for fewer children were found to be associated with exposure to media message about family planning

(Chandra-Mouli, 2020). According to Ngome and Odimegwu (2014), some studies have focused on the influence of health service characteristics and in particular, the quality of care on contraceptive adoption. Others too focused on the characteristics of the community that have influence on contraceptive use, include community economic development, school participation levels, children's economic roles and community fertility norms. Some studies however demonstrate the importance of considering diffusion effects on many expected individual socioeconomic factors that influence contraceptive use at levels beyond women own individual circumstances. Mostly, studies on the influence of community characteristics are in developed countries. In addition, existing studies ignored that the individual effect on contraceptive use might be compromised by some aspects of the community that may not be understood. These studies fail to establish the independence of the community variables from the individual variables. Such independence has been established by other studies which explains the significantly huge cluster variation that remains even after controlling for the effect of the individual characteristics. According to World Health Organization (2001) cited in Keatley (2016) estimates, sexual and reproductive health problems account for 18 percent of the total global burden of disease and 32 percent of the burden among women of reproductive age (15 to 44 years old) worldwide. Among unmarried sexually active adolescents in Sub-Saharan Africa, contraceptive use ranges from a low of 3% in Rwanda to a high of 56% in Burkina Faso (WHO, 2001; UNFPA, 2018).

Each year some 50 million women suffer illnesses related to pregnancy and childbirth, and over 529,000 died (WHO, 2005; Nmadu, 2017). By using family planning to prevent unwanted and high –risk pregnancies and to space births more widely, women can substantially reduce the risk of mortality and morbidity associated

with complications of pregnancy and childbirth (Norton, 2005; Ahorsu, 2017). A study conducted by Keogh et al. (2021) in Ghana revealed that young adults who represent one-third of the participants who had had sex before were using contraceptive methods as compared to the older women, these young adults most commonly used condoms, withdrawal method, implants and injectable while the older women use withdrawal methods, primolut N-tablet and emergency contraceptives. They preferred methods that were effective, and will not harm their health or future fertility or disrupt their menstrual cycle. Further, when family planning services are sufficient to meet the growing demand for contraception, abortion rates decline (Deschner & Cohen, 2003; Ahorsu, 2017). According to Keogh et al. (2021), Ghanaian women value hormonal methods for their effectiveness against pregnancy. However, concerns about side effects (particularly bleeding changes), future fertility impairment, and long-term health issues led some women to discontinue the use of hormonal methods.

A recent analysis has estimated that the money spent on providing modern contraceptive services in the developing world – US\$ 7.1 billion in 2003 – prevents 187 million unintended pregnancies, 60 million unplanned births, 105 million induced abortions, 22 million spontaneous abortions, 215,000 pregnancy-related deaths each year, and the loss of 60 million disability-adjusted life years (DALYs)-16 million among women and 44 million among infants and children (Singh et al., 2003). In other words, every \$33,000 invested in family planning prevents one maternal death (Singh et al., 2003; Green & Merrick, 2015).

2.4 Accessing Contraceptive Methods

Accessing contraceptive methods is a major component of using contraceptives. Within the past years many efforts have been made to improve the available and access to adolescent sexual and reproductive health services. Access to contraceptive is not only right, but also a critical need that can help to maintain and improve their reproductive health. Female adolescents who are not granted access to contraceptives are not deprived of their right to reproductive health, as they may be forced to experience an unwanted pregnancy and as a result, suffer or die from childbirth or abortion complications. In ensuring access to preferred contraceptive methods for women is essential to securing the well-being and autonomy of women, while supporting the health and development of communities. It is of vital importance that female adolescents gain access to comprehensive reproductive health care, including contraceptive services and information so as to reduce the threats occasioned by the expression of their sexuality (Oyekunle, 2015; Klu, 2017).

Access to contraceptive methods is another major barrier facing adolescents. Access can be impeded in multiple ways including: time and space available for services, access to a provider who will give them time alone for appointments and will talk about sexual issues, access to confidential services that are affordable, and access to transportation for appointments (World Health Organization: Department of Maternal, Newborn, Child and Adolescent Health, 2012). Ensuring access for all people to their preferred contraceptive methods advances several human rights including the right to life and liberty, freedom of opinion and expression and the right to work and education, as well as bringing significant health and other benefits. Use of contraception prevents pregnancy-related health risks for women, especially for adolescent girls, and when births are separated by less than two years, the infant

mortality rate is 45% higher than it is when births are 2-3 years and 60% higher than it is when births are four or more years apart. It offers a range of potential non-health benefits that encompass expanded education opportunities and empowerment for women, and sustainable population growth and economic development for countries (Wulifan et al.,2017).

Many females rely on myths and misconceptions about the side effects and negative consequences of contraceptive methods and this lack of knowledge and information on how to access leads to the poor use of contraceptive. According Mardi, Ebadi and Moghadam (2018), the patterns of contraceptive use differ significantly between adolescent girls and adult women due to the accessibility of the contraceptive. Adolescents are less likely to get access to contraceptives methods than the adult women with regards to insufficient contraceptive knowledge and lack of autonomy in decision-making by the adolescents. According to Sohn (2020), children whose mothers had access to family planning receive more schooling and were less likely to live in poverty as adults. There are also links between family planning and lower rates of child mortality and better childhood health. Increasing access to Emergency Contraceptive does not influence teenage sexual behavior, including frequency of unprotected sex, use of routine contraception, number of sexual partners, or risk of sexually transmitted infections. Access to general health care for deaf ethnic minorities might be even more challenging than for majority of deaf populations. Some factors that complicate access to health care are communication barriers, limited financial resources, and racism (Shah & Priestley, 2001; Kuenburg, Fellingner, & Fellingner, 2016). Many young Ghanaian adolescents experience high rates of unmet need for contraceptive methods and unintended pregnancy, and face unique barriers to accessing sexual reproductive health services. These adolescent's intermittent sexual

activity, desire for methods that do not harm their health but rather safeguard their fertility, along with patterns of more intermittent sex, may contribute to the use of short-acting and coital-dependent methods such as rhythm and withdrawal. Since these methods have high failure rates than longer-acting methods (Keogh, Otupiri, Castillo & Polis, 2021).

Ngwena and Cook (2005) cited in Lelisa (2016) highlighted the right to access health service care services can not only be linked to notion of self-determination, but also the right to access equality and human dignity. This equality can be the bases for female adolescents to solicit for the access of contraceptives as the adult women. For female adolescents to access contraceptives, there are some measures to be put in place and they are acceptance, accessibility, availability and good quality. In spite of existing family planning programs and policies, most women who desire to postpone or limit child birth still has limited access to contraception use.

Although knowledge on contraception in most low- and middle-income countries has increased over the last few decades, access to contraception use is still problematic for many women who wish to space or limit child birth. Although in these settings reproductive health policies and family planning programs started already in the early days, women often continue to have more children than they wish to (Wulifa et al., 2017)

According Lelisa (2016), there are four overlapping dimensions upon which accessibility is promised. These include non-discrimination, physical accessibility, economic accessibility and information accessibility.

Non-discrimination of individuals

Comprehensive contraceptive information and services must be provided equally to everyone voluntarily and free of bias. To ensure access to health-care services there must be elimination against women in their family planning services in particular contraceptives to female adolescents. This means the same treatment given to adult women when it comes to accessing contraceptives must be accorded to female adolescents. There should not be any age limit placed on accessing contraceptives. The government must ensure that reproductive health-care services are available to everyone, especially female adolescents in terms of financial and geographical, without any discrimination relating to their marital status, age, disability, residence or health condition. Emergency and hormonal methods of contraceptive must be easily accessible to female adolescents who are sexually active, this will help them to prevent unplanned pregnancy and protect them for attracting sexually transmitted infections (Lelisa, 2016).

Some health practitioners have negative perception and attitudes towards females who are blind and deaf, they assume that they are sexually inactive so most of them face discrimination when trying to access reproductive services (contraceptive) (Yimer et al., 2019). Female adolescents who are deaf face compounded discrimination not only because they are adolescents, but also because they are disabled.

Many studies discovered that fear of stigma and discrimination prevented persons with disabilities from accessing sexual and reproductive health services (Swartz et al. 2009; Yee & Bresli, 2010). In most socio-cultural settings persons with disabilities are greatly stigmatized and this greatly affects their effective integration into society (Waxman-Fudducia, 1997; Mavuso, 2013). Stigma and discrimination are related and

confusing terms. Discrimination entails subjection to the stereotypes, misconceptions and assumptions of others about disability (Yee & Breslin, 2010). Pharmacist refusals to fill contraceptive prescriptions or provide emergency contraception, as well as pharmacies that refuse to stock contraceptives, are considerable barriers. Although some women have access to an alternative pharmacy, women in areas where pharmacies and pharmacists are limited, such as rural areas, may find insurmountable obstacles to obtaining prescribed contraception (Ganle et al., 2020). Hinshaw (2005) cited in Mavuso (2013) described the term stigma as an attribute that triggers social discrediting. The implications are a denial of privacy, only a superficial acceptance in a group and the perception as being a non-person. In a study carried out in Lusaka, Zambia, in which women with disabilities felt that they attracted a lot of negative attention when using reproductive health care services, which discouraged them from the use of such services (Smith et al. 2004; Guzzo & Hayford, 2019). Stigma and negative attitudes by healthcare providers and staff are one of the most commonly cited barriers in the literature. These barriers may be compounded for people with disabilities that possess other marginalized identities, such as refugee status (Devkota et al, 2019).

Physical accessibility

Contraceptive methods must be within safe and physically accessible to all female adolescents especially the ones who are having disabilities. Physical accessibility also means contraceptive methods must be accessible in hard to reach places. Hence physical accessibility should be ensured for all especially adolescents living in rural and remote areas. For female adolescents who are deaf, the physical accessibility includes the mode of communication (sign language) and adequate access to health centers and/pharmacies. Government must ensure that female deaf adolescents have

an equal right to the highest attainable standard of health care services by ensuring access to health facilities contraceptive methods, goods and services. These are sensitive to their wellbeing and it will increase their self-reliance and activeness in the society they find themselves (Lelisa, 2016). Other factors included the woman's income level, proximity to the provider and the religious background of the woman. To increase the use of family planning services among women in slums, activities of community based distributors should be revived and enhanced, promotion of family planning education and activities at the household level should be accorded priority. Formation of lobby groups to enhance cultural change, awareness creation and counselling and integrating family planning services with HIV/AIDS are recommended (Wawire & Mburu, 2011).

Existing literature suggests that sexual and reproductive health services are physically inaccessible for persons with disabilities. Most studies if not all have cited environmental/physical barriers hindering access to sexual and reproductive health services for persons with disabilities. According to Oliver (2013), in Ghana, the mean distance to the source of getting contraceptive methods is about three miles including public and private health facilities. These services also offer several modern contraceptive methods at a fee. Often persons with disabilities encounter difficulties in accessing sexual and reproductive health services because health facilities are located far from their homes and walking long distances to healthcare facilities in order to access contraceptive methods hinders utilization. In such cases, persons with disabilities have to bear the cost for arranging transport or paying for someone to accompany them to the facility. This is often a challenge or even impossible for many because of poverty among this group. Oliver (2013) mentioned that the female schoolers will also raise contraceptive use and lower fertility, particularly in rural

areas. He also indicated that, distance to access services remains a binding constraint for contraceptive use among the entire sample used in the study. For the rural sample women, the distance to service areas still high while in urban areas where demand for smaller families is greater, distance is a binding constraint even though average distances are smaller. The number of methods offered at the health facilities are associated with lower fertility but has no apparent relation with current contraceptive use. Going beyond public-sector health facilities and systems, many adolescents seek contraceptives from pharmacies and shops. In Nigeria and Ghana for instance, 35% of married adolescents obtain contraceptives from government hospitals/ health centers; the rest do so from private sources. However, less than 5% of adolescents who are unmarried/not in union obtain contraceptives from government-run facilities in Kenya (Chandra-Mouli, 2020). Most adolescents prefer getting their contraceptives from pharmacies because, pharmacies offer adolescents accessible locations, longer operating hours and nowheresville in obtaining contraceptive methods. The preference for pharmacies is especially evident in contexts where obtaining contraceptives from government health facilities may be difficult due to restrictive laws, health worker bias, or privacy concerns. The implication of this is that working actively and creatively with pharmacies and shops to expand contraceptive access and uptake, is important to do a range of approaches are required to respond to the differing needs and preferences of different groups of adolescents. Queues at health facilities and undesirable attitudes of healthcare providers such as shouting, scolding and not allowing the client to explain their side effect experiences of using the method towards the unmarried and adolescent users of contraceptive methods can compound physical barriers to accessing services.

Economic accessibility

The high cost of some contraceptive methods contributes to limiting female adolescents from accessing it, especially those from the rural and urban areas. Lack of financial resources discourage a lot of adolescents from accessing sexual and reproductive services; contraceptives inclusive. A research conducted in Nigeria by Isuigo-Abanihe and Oyediran (2015), indicated that female adolescents who are from less privilege homes are likely to have unprotected sex as compared to adolescents from rich homes. This means that poverty aggravated gender inequality and conceal female adolescents' sexual autonomy. For everyone to get access to contraceptives, it must be affordable. Sexual reproductive health, must be provided at no cost or based on the principle of equality to ensure that individuals are not disproportionately burdened with health expenses (Lelisa, 2016). To ensure that young people are well educated to make informed decisions on their sexuality, there is a need to introduce a comprehensive sexuality education initiative in basic schools. A study by Gbagbo (2020) showed that basic school pupils in Ghana are generally sexually active but have an unmet need for modern contraception due to sociocultural reasons, stigma, and misconceptions about contraceptives. Contraceptive awareness and use are more prevalent among junior high school pupils compared to those at the primary levels. Pupils who received contraceptive education from parents/guardians were, however, more likely to use modern contraceptives consistently compared to their counterparts who do not. In light of recent controversies surrounding comprehensive sexuality education in Ghana, the researchers believe that findings of this study provide some empirical evidence to justify national policy and program decisions on introducing comprehensive sexuality education in Schools.

Wazakali, Mpofu and Devlieger (2006) cited in Mavuso (2013) highlighted that socio-economic factor impact negatively on access to sexuality and HIV and AIDS information and services for young persons with disabilities. Conditions of poverty are also cited as inducing unsafe sexual behaviors by limiting people's decision-making capabilities regarding sexual relations. Persons with disabilities are observed to have little knowledge of sexual and reproductive health services, lack access to services and have reduced ability to negotiate contraceptive use, especially condoms.

Enabling the use of contraception can reduce the number of adolescent girls who become pregnant. This will not only improve the health and well-being of these young women and the children they may eventually have but also contribute to potential economic benefits.

Accessing information on contraceptive methods

Seeking information concerning one's health is a right. According to WHO (2011) access to health care without barriers is a clearly defined right of people with disabilities as stated by the UN Convention on the Rights of People with Disabilities.

According to the United Nations enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being. The need to identify barriers that people with disabilities face in accessing health services at a variety of levels, and to find optimum strategies to integrate their needs into primary health care systems by focusing on delivering effective interventions have been highlighted as priorities (Tomlinson et al., 2009; WHO, 2011). Information about contraceptive methods is very important to female adolescents and it must be in a language they understand, that is health practitioners must explain the contraceptive methods to the lowest level for them to understand. Access to health care affects the health of deaf people and a call for action to provide better access to health services as well as

language and communication barriers has been highlighted (Emond et al., 2015; Kuenburg, et al., 2016). For instance, female adolescents who are deaf cannot understand verbal mode of communication so there is a need to get sign language interpreter to translate what is being said verbally to them through sign language.

Deaf people face more difficulty accessing health information than hearing people. Deaf sign language users do not have access to incidentally occurring information about health issues in tramways, or on the radio or TV, and there is a general lack of health information and education materials provided in sign language (Pollard, Dean, O'Hearn, & Haynes, 2009; Kuenburg, et al., 2016). Young Ghanaian women can experience difficulties accessing sexual and reproductive health services, and many are not using contraception despite wanting to avoid pregnancy. To better understand their needs, their needs have been described into preferences and behaviors around contraceptive methods. The government should provide a safe and supportive environment for the female adolescents by according them an opportunity to acquire appropriate information, counselling concerning their health care services especially with choices they make on contraceptive methods to use.

Unfortunately, in Ghana, sex before marriage is seen as a sin and therefore are not acceptable in the communities. This makes it hard for the female adolescents to even discuss any sexual related problems with their parents or an elderly person for an assistance. Parent-child communication about sex on adolescent has a greater impact on adolescent health and it has resulted good outcome. Conducted in South Africa, A study conducted by Hindin and Fatusi (2009) in South Africa showed that women who were part of a multifaceted intervention were more likely than those who were not to report communication with their children and other members of their household

about issues related to sex and condom use, rather than just about the dangers of sex. A study in Ghana showed that school-going youth who reported parent-child communication about HIV/AIDS were more likely to have used condoms at last sex, but communication was not associated with onset of sexual activity. A longitudinal study of 12–14-year-old virgins in Tanzania showed that 27% reported talking to their parents about sex and HIV, but that these discussions were not associated with the timing of sexual initiation. Interestingly, however, communication with teachers was associated with delayed sexual initiation. In some developing countries, parents were among the most utilized or preferred sources of sexual and reproductive health information. Parent-child communication needs to examine in concordance between what parents believe they are saying to their adolescents and what messages and information adolescents are receiving from these interactions (Hindin & Fatusi, 2009). Overall, the use of contraceptives is not openly discussed among young unmarried women due to strong cultural and religious beliefs, which exposes the young women to the increased risk of unwanted/unintended pregnancies. In many African traditional cultural settings, pregnancy before marriage is often viewed as an abomination. As such, many unmarried females who get unintended pregnancies seek abortions services for fear of societal judgment. Abortion in Uganda being illegal increases the risk of maternal deaths because it is usually unsafe and at times conducted by traditional herbalists. (Nsubuga et al., 2015). Some health practitioners even deny female adolescents who go to the health centers to seek contraceptive services (Lelisa, 2016).

Sexual reproductive health information is essential to guide the adolescent to become aware of his or her sexuality in order to make the right decisions and avoid engaging in risky sexual behaviors. A study conducted by Arulogun, Titiloye, Afolabi,

Oyewole and Nwaorgu, (2013) on the experiences of young women who are deaf in Nigeria revealed that they feel embarrassed when questions about their sexual life are being asked in the presence of an interpreter and cost of paying the interpreter were all key barriers to accessing appropriate reproductive health care. Deaf people who have practiced lip-reading/speech-reading for many years and who are familiar with spoken language are able to understand at best 30–45% of spoken English (Lieu, Sadler, Fullerton, & Stohlmann, 2007; Kuenburg, et al., 2016).

In the literature, lack or limited knowledge is cited as another factor that makes sexual and reproductive health services inaccessible to persons with disabilities. Persons with disabilities, especially women have difficulty obtaining reliable information about contraception; they lack basic knowledge of their sexual and reproductive health (Swartz et al., 2009). On the global level, according to 1997 UNFPA's estimates only 1% of women with disabilities are literate. In South Africa, lack of information has been identified as one of the factors that prevent persons with disabilities from fully accessing sexual and reproductive health services. Swartz et al. (2009) pointed out that it is likely that persons with disabilities in general have limited working knowledge in English and information on sexual and reproductive health, including HIV and AIDS is generally not communicated in their own language. Knowledge and awareness related to the spread of HIV is lacking among deaf populations especially among deaf adolescents. Surveying Deaf associations globally, only 41 countries reported that HIV/AIDS affects deaf people, whereas 52 country participants said that HIV/AIDS does not affect deaf people in their countries Very few countries seem to be aware that HIV/AIDS can affect deaf people. These results suggest that there is a need for awareness and information campaigning directed not only at deaf individuals, but also for associations of the Deaf (Hualand & Allen, 2009; Ganle et

al., 2020). Ubido et al. (2002) cited in Ganle et al. (2020) found out that deaf women face a lack of information on such matters as sex education, contraception, and childbirth. Efforts to build individual competence, and shared norms of sensitivity and enthusiasm, should be combined with approaches to hold service providers accountable to consumers through enhancing the quality of information that consumers have on their rights, creating mechanisms for the participation of communities in oversight mechanisms, and establishing community groups to advocate for their rights. Adolescents are often asked for their opinions (voice). A recent study shows that Deaf American Sign Language users consulting health providers who use sign language have higher appropriate use of preventative services (McKee, Barnett, Block, & Pearson, 2011). That is important to do but in addition, involving them in such mechanisms would give them the ‘teeth’ they need to make health service providers and services more accountable (Michelle, Hindin, Adesegun & Fatusi, 2009; Chandra-Mouli, 2020).

Effective communication skills are essential for establishing trust with adolescent patients. Adolescents have expressed a willingness and desire to discuss sensitive topics with their providers, but the providers’ communication style is a determining factor as to what information the adolescent will share (Ambresin, Bennett, Patton, Sanci, & Sawyer, 2013). Glickman (2007) cited in Kuenburg, et al. (2016) suggested that it is also important to consider the different communication skills that patients may have. Although existing data vividly demonstrate the consequences of lack of contraceptive use among adolescents, little is known about what makes program and policy interventions successful and, therefore, what recommendations will best serve governments and donors interested in helping adolescents meet their contraceptive needs. According to Chandra-Mouli (2020), building health service providers’

abilities to provide contraceptive information and services effectively should be combined work with effort them as a community to build empathy and commitment to overcome service provider bias in contraceptive provision in general. Nakray (2018), in recommend not blaming service providers, promoting sharing and learning from positive deviants, being explicit about what not being discriminative means in practice and using comprehensive approach to change behavior. This is illustrated in a study from Moldova which showed that fostering peer-sharing and learning in a safe environment can stimulate bottom-up problem definition and problem-solving and foster the development of norms and practices that are respectful and equitable in a group setting (even when they are not in the wider community in the group operates). Language deprivation and associated language dysfluency can contribute to serious misunderstandings. A deaf patient with sign language dysfluency, is at even further risk for miscommunication with physicians than a hearing person who is not fluent in the locally spoken language, as deafness may mask communication deficits. Deafness, regardless whether seen as a disability or as a culture, creates communication barriers in health care settings (Woodcock & Pole, 2007; Kuenburg, et al., 2016). Smeijers and Pfau (2009) cited in Ganle et al (2020) argued that treating a native signer, who might not necessarily be fluent in the local written language as if it was his/her first language, can cause serious communication problems.

Persons with disabilities face a myriad of demand and supply side barriers to accessing sexual and reproductive healthcare in sub-Saharan Africa. Multilevel interventions are urgently needed to address these barriers (Ganle, Baatiema, Quansah & Danso-Appiah, 2020).

2.5 Attitudinal barriers in accessing contraceptive methods

It is widely recognized that health service providers play a significant role in the quality of sexual and reproductive health services and client's access to them. Attitudinal perceptions that persons with disabilities are asexual can lead to withholding information on the assumption that they won't need it. Stigma, negative attitudes and discrimination from health workers. Service-providers include government doctors and nurses, counsellors, community-based distributors, midwives and social workers, pharmacists, and the assistants to all these. Service providers attitudes and practices can be an important determinant of clients returning to use a particular contraceptive method. For example, in South Africa, studies discovered that when providers are friendly and welcoming, young people are more likely to utilize the services and even discuss sensitive issues with them (Tavrow, 2010). Moreover, service providers may be the only source of reliable information, essentially for illiterate and uneducated people, or those with limited access to the mass media, such as persons with disabilities.

Several studies suggest that persons with disabilities consider service provider's attitudes to be the most difficult barrier to overcome (Swartz et al. 2009; Malarcher, 2010). Milligan and Nuefeldt (2001) cited in Mavuso (2013), reported that persons with disabilities are routinely told by physicians and health staff they would very likely never marry, never have a family, and certainly would not have a sex life. Service providers often appear surprised or shocked when persons with disabilities request contraceptives or when they come for family planning including HIV and AIDS services, due to the common misperceptions about them. Service providers often assume that persons with disabilities, especially women would not be good parents, so they frequently advise them not to have children (Marlacher 2010). Even if

adolescents can reach contraceptive delivery points, they may not be able to get contraceptive information or services they need/want because health service providers have knowledge gaps and misconceptions about contraceptive service provision, do not have the knowledge and skills to respond to the specific needs of adolescents, or are judgmental and disrespectful with them.

Many health service providers have knowledge gaps and misconceptions that contraceptive methods, and especially long-acting ones, should not be used in adolescents who have not yet had a child. They may not be aware that when adolescents use contraceptives, they are more likely to use them for shorter periods than adults; and are more likely than them to discontinue use because they are particularly sensitive to side effects. They may also not be aware that adolescents are at higher risk of rapid repeat pregnancies because of lack of awareness and misconceptions about return to fertility. Also lacking expertise in working with adolescents, they may not have the knowledge or skills to assess the cognitive, psychological and social situation of their adolescent clients, and to offer contraception as a means of achieving their life goals, using approaches such as motivational interviewing and aspirational counselling. Finally, in many places health service providers believe that it is wrong for adolescents to be sexually active before marriage; these attitudes translate into judgmental and disrespectful behavior (Plan, 2017).

Lack of Confidentiality

Society for Adolescent Health and Medicine (SAHM) define confidentiality as an agreement between adolescent and provider that information discussed during or after the encounter will not be shared with other parties without the explicit permission of

the patient. Concern for confidentiality is seen as a significant barrier for adolescents in accessing contraceptive methods. Adolescents may be concerned about being recognized in the waiting room by family, friends, or other people in the community who may know their parents. They may also be concerned that their provider may have social interactions with parents in which the provider might purposefully or accidentally disclose that the teen was seen by them (World Health Organization: Department of Maternal, Newborn, Child and Adolescent Health, 2012).

In clinic settings, a number of conditions may threaten assurances of confidentiality for young people in the context of general healthcare services, including family planning. Some providers simply do not provide healthcare services to young people confidentially, some do not explicitly discuss confidentiality with young people, and some lack training on the provision of confidential healthcare services to adolescents and young adults. Having parents learn about services sought is a profound fear of adolescents. One study found out that 83% of the adolescent participants would stop accessing sexual health services if their parents were notified, while only 1% of the participants would abstain from sex (Alford, 2009). Additionally, some healthcare providers will either choose not to ask adolescents about sexual health issues, or will do so in front of a parent, which inadvertently limits adolescents' ability to access necessary services.

If access to family planning services was increased, the unmet need for family planning could be met, thereby slowing population growth rate and reducing the costs of meeting MDGs in terms of universal primary education, which is influenced by the number of children in need of education. Hawkins et al. (1995) cited in WHO (2015) stated that family planning services offer various economic benefits to the household, country and the world at large. First, family planning permits individuals to influence

the timing and the number of births, which is likely to save lives of children. Secondly, by reducing unwanted pregnancies, family planning service can reduce injury, illness and death associated with childbirth, abortions and sexually transmitted infections (STIs) including HIV/AIDS. Further, family planning contributes to reduction in population growth, poverty reduction and preservation of the environment as well as demand for public goods and services. A web of inter-related factors contributes to poor access and use of contraception by adolescents. A useful International Center for Research on Women (ICRW) framework lists three demand-side and two supply-side factors. Demand-side factors include the lack of desire to avoid, delay, space, or limit childbearing; the lack of desire to use contraception; and the lack of confidence and ability to seek/negotiate contraception use. Supply-side factors include poor access to contraceptive services and to quality including respectful service provision. Each of these factors is discussed below as is research evidence and programmatic experience on addressing these factors effectively.

A foundational principle of this framework is that adolescents are a diverse group with differing needs. Girls/young women in the 10–19 years age group include those who are married/in union and those who are not, first-time parents, those living with HIV and those living with disabilities. For example, data from Kenya point to enormous differences in the levels of use of contraception, in the methods used, in the main sources of contraceptive methods, and in the reasons for non-use between those in union and those who are not. These differences reinforce the need to understand the realities of key subgroups in adolescents and to tailor our approaches to their needs and preferences:

Addressing the lack of desire to avoid, delay, space and limit childbearing

One reason for some adolescents' lack of willingness to obtain and use contraception is because they have no desire to avoid, delay, space, or limit childbearing. In contexts in which early childbearing within or outside marriage/union is socially accepted or even encouraged, early pregnancy is likely to be intended and wanted. Thus, efforts to increase contraceptive awareness and access are likely to have little effect on their uptake. Rather, initiatives that address poverty and social disadvantage, including lack of access to education and employment opportunities, are required. These efforts should be combined with complementary efforts to reduce child/early marriage, a major contributor to adolescent childbearing (Kuzma, 2015).

Addressing the lack of desire to use contraception

A second reason for some adolescents' lack of willing to obtain and use contraception is because they have no desire to use it stemming from fear of side effects and that it could prevent them from getting pregnant in the future, or as a result of beliefs that its use conflicts with their traditions and religious directives. In this context, information and education on contraception, including efforts to understand and address myths and misconceptions, are required. The updated International Technical Guidance on Sexuality Education sets out key concepts and learning objectives for use in school- and community-based sexuality education – grounded in human rights and gender equality – that is scientifically accurate, incremental, comprehensive, and age and developmentally appropriate (Kuzma, 2015).

Addressing the lack of self-assurance and independence to use contraception

Even if adolescents want to avoid, delay, space, or limit pregnancy and childbearing and want to obtain and use contraception, they may not have the self-assurance or the

independence to do so. They may be reluctant to admit that they are sexually active or embarrassed to seek contraception. They may also face opposition from their partners or other influential family members such as mothers-in-law, who, in some settings, can overrule decisions they make. (Emotional and/or physical violence or the threat of violence often is an important aspect of this opposition). In such contexts, efforts to build adolescent girls' abilities to make decisions and negotiate decisions about childbearing and contraceptive use are required, as are efforts to engage and support their male partners in shared decision-making. Depending on the social context, young men too may not lack the confidence and independence to seek contraception. That is why, alongside efforts to reach young people, complementary efforts are needed to build support for contraceptive use from family and community members (Kuzma, 2015).

2.6 Overcoming barriers to access contraceptive services

Even when adolescents want to avoid, delay, space, or limit childbearing; want to use contraception to do this; and have both the confidence and the support of their partners and influential others, they are not always able to obtain the contraceptives/contraceptive services they need. In some places, laws and policies prevent the provision of contraception based on age or marital status. Further, adolescents may often be unaware about where (or when) contraceptives are available, unable to reach a contraceptive service-delivery point, or unable to afford them. Barriers such as inaccessible service locations and cost negatively affect adolescents as well as adults. However, they disproportionately affect adolescents, as they often have limited ability to move around and financial autonomy to pay for service fees and transport. It is clear that the financial burden is one of the main barriers that adolescents and women face when seeking for contraceptive methods,

with socio-economic differences between rural and urban women (Potasse & Yaya, 2021). In this context, efforts to enable adolescents to access contraceptives/contraceptive services are required. Contraceptive methods, regardless of what form it takes, is a critical element of reproductive healthcare and should be available to everyone regardless of religion, income, gender, race, age and /or sex. One does not need to be using contraceptive method to realize that its accessibility or affordability (Pandia, 2022).

There is considerable research evidence and practical experience in what works and what does not in improving the access of adolescents to contraceptive services. In many places, both nongovernment organizations and governments have set up youth centers, youth corners in health facilities or separate health services for adolescents. Studies have shown that while youth centers may serve the useful purpose of providing a venue to bring young people together and to conduct small-group learning and sharing activities, they do not lead to increases in contraceptive uptake (Savage & Nienaber, 2015).

Further, separate services are difficult to scale up and sustain in resource-constrained settings. Given this, there is a growing recognition of the need to move away from separate/dedicated services for adolescents, and instead make existing health services that already serve adolescents to a greater or lesser extent, more adolescent friendly, e.g. antenatal clinics, postnatal clinics, and STI/HIV clinics. Using programming principles and practices learnt from research studies and projects. Example, removing policy restrictions to access, ensuring confidentiality and privacy, and providing free or subsidized services – existing services could be made more responsive to adolescents' needs and preferences. Also, focusing on strengthening existing services

is a pragmatic approach to reach large numbers of adolescents. Such an approach led to increasing the uptake of adolescent contraception and the reduction of adolescent pregnancy. Further, combining service provision in static health facilities with community outreach can further extend the access and uptake of contraception by young women in the rural areas, as shown in Ethiopia (Hindin et al, 2009). Going beyond public-sector health facilities and systems, many adolescents seek contraceptives from pharmacies and shops. In Nigeria for instance, 35% of adolescents who are married/in union obtain contraceptives from government-run facilities; the rest do so from private sources. However, less than 5% of adolescents who are unmarried/not in union obtain contraceptives from government-run facilities in Kenya, both adolescents who are married/in union and those who are not obtain contraceptives from the private sector (Hindin et al, 2009). Pharmacies offer adolescents accessible locations, longer operating hours and more importantly anonymity in obtaining contraceptive methods. The preference for pharmacies is especially evident in contexts where obtaining contraceptives from government health facilities may be difficult due to restrictive laws, health worker bias, or privacy concerns. For example, studies in Nepal and Ethiopia show that pharmacies are the first choice for adolescents for emergency contraceptive pills. The implication of this is that working actively and creatively with pharmacies and shops to expand contraceptive access and uptake, is important to do (Sycharevn & Broese, 2019).

The bottom-line message is that one size does not fit all; a range of approaches are required to respond to the differing needs and preferences of different groups of adolescents. The E2A Project has developed a planning tool which lists different models of service provision that could be employed - a stand-alone clinic for adolescents, a separate space for adolescents within a clinic for all segments of the

population, a clinic in which adolescent responsive elements are fully mainstreamed, mobile outreach services, community-based services, drug shops and pharmacies, and the provision of health services in a non-health setting. Social marketing, social franchising and voucher schemes could be put in place in combination with these models. Recognizing that these approaches are very different in what they can achieve and in what it will take to operationalize them, the tool sets out considerations for the choice of the approach- including defining the health/behavioral outcomes to be achieved, the sub-population (s) of adolescents to be reached, the package of health services to be offered, and the resources available (Idowu & Popoola, 2017).

Given that a higher percentage of sexually active unmarried adolescents and young women in Ghana do not use contraceptives. Oliver (2013) suggested that appropriate interventions should be put in place to promote contraceptive use among this population to mitigate the deleterious consequences associated with adolescent pregnancy. Pertinent among these interventions is for relevant key stakeholders like the Family Health Division of the Ghana Health Service to embark on public education regarding the importance of contraceptive use, and making contraceptives accessible for people who need them. Evidence suggests that the use of adolescent-friendly reproductive health facilities improves usage of several health services including contraceptives. Owing to the stigma associated with contraceptive use among adolescents and young women, we advocate for setting up confidential, friendly and non-judgmental adolescent reproductive health centers in the community and the different levels of educational institutions in Ghana. Literature highlights a very important role of commercial drug sellers as far as adolescents and young women contraceptive sourcing is concerned. Given the barriers adolescents and young women encounter in seeking contraceptive services, community-based drug outlets

and pharmacies can complement the adolescent-friendly centers. These facilities are more accessible, provide faster services, have longer opening hours and are confidential in providing adolescents and young women with contraceptive services (Badu et al., 2019). The stigma attached to adolescents, most especially late teenagers who patronize contraceptives services should be addressed by intensifying health education, particularly at the community level. In this study, more than 70% of the participants owned a mobile phone. In light of this high rate of mobile phone use, contraceptive use interventions for young women could be pursued through mobile phones (Bankole & Malarcher, 2010).

With that said, the most important thing to remember is that it is the individual's choice as to whether or not to use contraceptive method. This means anyone who is sexually active should be denied affordable and accessible to it.

2.7 Government role in making contraceptive methods accessible to adolescents

1. Age-appropriate, medically accurate, comprehensive sexuality education that includes information on abstinence as well as the full range of FDA-approved contraceptives. The right of women to receive prescribed contraceptives or an immediate informed referral from all pharmacies.
2. Efforts to increase access to emergency contraception, including removal of the age restriction for all levonorgestrel emergency contraception products, to create true over-the-counter access. Again, over-the-counter access to oral contraceptives with accompanying full insurance coverage or cost supports
3. Sufficient compensation for contraceptive services by public and private payers to ensure access, including appropriate payment for clinician services and acquisition-cost reimbursement for supplies.

4. Provision of medically accurate public and health care provider education regarding contraception Institutional and payment policies that support immediate postpartum and post abortion provision of contraception, including reimbursement for long-acting reversible contraception (LARC) devices separate from the global fee for delivery, and coverage for contraceptive care and contraceptive methods provided on the same day as an abortion procedure.

2.8 Health Workers Role in Making, Contraceptive Accessibility

Health workers are expected to perform the following functions below.

Counselling

All adolescents should be thoroughly counseled during the first visit to encourage acceptance and reduce doubts inherent in the selection of any birth control method. Positive presensitization such as this is best accomplished by addressing questions before they are asked, such as those regarding weight gain and breakthrough bleeding. Communications and other interventions designed to improve the sexual and reproductive health of adolescents need to respond appropriately. Teens who are reassured that a low-dose oral contraceptive pill will not cause weight gain and in fact will provide multiple other non-contraceptive benefits are much more likely to continue to take their pills on a long-term basis. The health care professional's pragmatic approach to the individual adolescent and her lifestyle will result in a choice that is optimal in effectiveness and use. It is essential to foster a supportive attitude of trust and confidentiality; encouraging follow-up ensures patient satisfaction with her chosen method, early detection of side-effects or complications, and opportunity to switch to another type of contraception as appropriate. Health care providers should facilitate bonds with patients to ensure user access and need to allow

extended appointments for adolescents who are deaf (Barnett, Koul, & Coppola, 2014).

Education

Some birth control methods are more effective at preventing pregnancy than others. IUDs and implants are the most effective reversible methods currently available. Some methods are easier to use than others. For example, if it is hard to remember to take a pill every day, birth control pills may not be the best option. A healthcare provider can explain potential side effects of methods and ensure that a method is safe given an adolescent's overall health. Most contraceptive methods do not prevent STDs, so it is recommended that adolescents also always use condoms in addition to their primary birth control method for both STD and pregnancy prevention. Make sure your adolescent knows that even if they are using another type of birth control, they should use a condom every time they have sex. This reduces the risk for HIV and most other STDs. Birth control such as the IUD, implant, pill, patch, ring, or shot provides effective pregnancy prevention, but it does not protect against HIV and other STDs. Condoms can reduce the risk to both partners for most STDs, including HIV, as well as the risk for pregnancy (USAID, 2020).

The goals of the health care practitioner in the 21st century should be to increase awareness and education in younger teens regarding the sequelae of early sexual activity, particularly if undertaken without contraceptive protection. Low-cost, confidential contraceptive services and information and treatment regarding sexually transmitted diseases (STDs) must be provided in a private, reassuring, and confidential setting. Health care providers should also review the benefits unique to

various types of contraception with each adolescent to mutually select the best method for her and her partner (WHO 2011).

Confidentiality

Confidential, comprehensive contraceptive care and access to contraceptive methods for adolescents without mandated parental notification or consent, including confidentiality in billing and insurance claims processing procedures. As a first step, your adolescent should have one-on-one time with their healthcare provider routinely, where you step out of the room. Let them know that one-on-one time is a good time for them to ask questions and talk openly and honestly. Encourage your adolescent to ask about sexual and reproductive health services when they have one-on-one time with their provider (WHO 2011).

2.9 Merits and Demerits of Contraceptive Use

Although some of the contraceptive methods used by adolescents are used to prevent pregnancy but they have their own health benefits and risks. The information about these benefits and risks are very important in the decision-making time (which one to choose).

Merits of contraceptive use

Contraceptive methods have a range of benefits other than their primary purpose of pregnancy prevention. It allows people to attain their desired number of children and determine the spacing of pregnancies. It is achieved through the use of contraceptive methods. Benefits of contraceptive methods go beyond simply preventing pregnancy, it has a positive impact on the nation's economic and social outcomes. Contraceptive use confers significant health benefits through reductions in unwanted and high-risk pregnancies, maternal and infant morbidity and mortality, unsafe abortions, and

medical therapy. These benefits are so significant that universal access to contraceptive methods is accepted internationally as essential to human right.

The following are some benefits of using contraceptive methods.

Reducing adolescent pregnancies

Unintended pregnancy is a serious adolescent morbidity and use of effective contraceptive is one of the pillars of adolescent pregnancy prevention and can prevent the negative impacts on their relationships and ambitions. Many adolescent girls who become pregnant have to leave school. This has long-term implications for them as individuals, their families and communities (Grant, 2016).

Delaying and spacing pregnancies

Contraceptive methods help women to time and space their pregnancies. Timing and spacing births also help women and couples to avoid many negative health outcomes that are associated with having babies too close together. This is linked to improved birth outcomes for babies, either directly or through healthy maternal behaviors during pregnancy (Megan & Ragnar, 2013). According to Sohn (2020), report over the years shows that when family planning programmes are in place, women have between 5% and 35% fewer children and space their pregnancies further apart. And their children, and often their entire communities also benefit.

Reducing unsafe abortion from unintended pregnancies

Contraceptive methods can prevent many of these tragic deaths by reducing the number of unintended pregnancies with a higher risk of pregnancy complications and unsafe abortions. An estimated 20 million unsafe abortions take place each year—resulting in 67,000 deaths annually, mostly in developing countries. It was estimated

that 14 of 1,000 women of reproductive age (15-44) had an unsafe abortion (Foster et al., 2014).

Helping to prevent HIV/AIDS

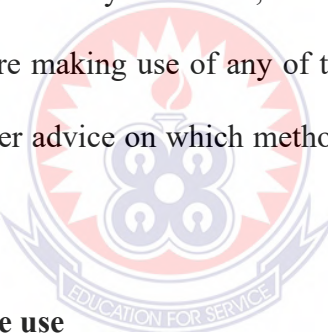
Contraceptive methods reduce the risk of unintended pregnancies among women living with HIV, resulting in fewer infected babies and orphans. In addition, male and female condoms provide dual protection against unintended pregnancies and against STIs including HIV. Contraceptive is an effective approach to reducing costs associated with HIV/AIDS: Savings are estimated at HIV/AIDS care and treatment facilities, for every money spent on family planning. Contraceptive use prevents more than 577,000 unintended pregnancies to HIV-infected women each year in sub-Saharan Africa; if all women in the region who did not wish to get pregnant used contraception, another 533,000 (additional) unintended pregnancies to HIV-positive women could be averted annually (WHO, 2015).

Empowering people and enhancing education

Family planning and contraception enable people to make informed choices about their sexual and reproductive health and create an opportunity for women for enhanced education and participation in society, including paid employment. When resources and access to affordable contraceptive, adolescent girls and women fare better in terms of education, participation in the workforce, job choice, health and much more (Sohn, 2020). Additionally, having smaller families allows parents to invest more in each child. Children with fewer siblings tend to stay in school longer than those with many siblings (WHO, 2015).

Reducing infant mortality

Contraceptive methods have clear health benefits, since the prevention of unintended pregnancies results in a subsequent decrease in maternal morbidity and mortality. Contraceptives allow spacing of pregnancies, delaying pregnancies in young girls who are at increased risk of health problems and death from early childbearing, and preventing pregnancies among older women who also face increased risks (Grant, 2016). Early pregnancy can also cause health problems for the baby. Babies born to teenagers and are likely to be underweight before and at birth and are at high risk on neonatal mortality (dying within 28 days of birth). The use of contraceptive methods is very important as it has several benefits to both females and males also to the economy of the family and country. However, adolescents should be sure to visit the nearby health facility before making use of any of the modern contraceptive methods this will help to seek proper advice on which method is best suited for their bodies in order to reduce side effect.



Demerits of contraceptive use

Side effects of contraceptive methods are either experienced or anticipated, and that counts for the reason why some individuals either choose not to start or discontinue using. Despite the number of merits associated with the use of contraceptive, there are other side defects. A fear of side effects may occur when someone she knows has experienced side effects with using method(s), or when rumors or overestimations or rare complications are considered factual (Schrumf et al., 2020). The specific side effects vary widely among individuals, and different methods cause different side effects. According to Lori (2020), the following are some side effects of using contraceptives.

Disruption of normal menstruation

This is the most troublesome and common side effect of using contraceptives. This is because it alternates the normal menstrual pattern. Individuals using contraceptives should be expecting abnormal bleeding patterns. The changes include spotting, amenorrhea, light or irregular bleeding. Spotting is the most common side effect of birth control pills; spotting is when one bleeds between her menstrual cycle. This happens because the body is adjusting to the changes of the hormones and the uterus is adjusting to the thinner lining (Megan & Ragnar, 2013).

Reproductive organ cancers

Hormonal contraception is contraindicated in women who have a history of breast cancer, because of the known sensitivity of these tumors to sex hormones. While progestin-only implants are unlikely to produce the same kind of cancerous change, women with implants who have a family history of breast growths or cancers should be closely followed up (Casey, 2020).

Rapid resumption of ovulation

Decline in progestin levels to undetectable levels occurs within a week of removal, and pregnancies have been reported to occur within one to two weeks of removal. Therefore, other contraceptive measures should be adopted immediately if the woman does not want to conceive (Mayo Clinic, 2020).

Non-palpable implants

The use of combined oral contraceptives has been associated with a higher risk of vascular thrombosis and infarctions, including retinal artery thrombosis. However, contraceptive implants contain only progestin. It is currently unknown whether they carry the same increased risk, but arterial or venous thromboses, and venous

thromboembolism have been reported, including pulmonary, deep leg vein, myocardial, and cerebrovascular arterial or venous thrombotic events (Cooper & Mahdy, 2021).

Summary of the literature

In this chapter theoretical framework and empirical literature review on the knowledge and use of among adolescent female deaf students adapted from Health Belief Model was presented. The following subtopic addressed the chapter: knowledge of adolescent female deaf students on contraceptive methods, type of contraceptive methods used by adolescent female deaf students, modern contraceptive methods, barrier contraceptive methods, traditional methods, accessing contraceptive method by adolescent female deaf students, attitudinal barrier in accessing contraceptive methods, overcoming barriers to access to contraceptive services, government role in making contraceptive methods accessible to adolescents and merits and demerits of contraceptive use on adolescent female deaf students. The was also a discussion of the theoretical context. Few observational studies have highlighted on knowledge and use of contraceptive method among adolescent female deaf students.

Although literature revealed the level of knowledge among adolescent female (deaf students) inclusive and the types of contraceptive methods they use. None of the above- mentioned research has attempted to look at the knowledge and use of contraceptive methods among female students at Kibi school the for Deaf. Therefore, knowledge and use of contraceptive methods among female students at Kibi school the for Deaf is required.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter describes the methodology that was used in the design of this study. This chapter addresses issues concerned with the research design, population, sample, sample techniques, data collection was used as well as data analysis method.

3.1 Research Approach

A quantitative research approach was used for this study. Fleetwood (2020) defined quantitative research as a systematic investigation of phenomena by gathering quantifiable data and performing statistical, mathematical or computational techniques. Also, it looks at measurable and numerical relationship. According to Williams (2021), quantitative research approach produces objective data that can be clearly communicated through statistics and numbers and helps the researcher to attain greater knowledge and understanding of the situation or events that affect people. The researcher chose quantitative research approach because it helped her to measure the level of knowledge on contraceptive methods of the female students at Kibi school for the deaf.

3.2 Research Design

A case study design was adopted in this study. The researcher used case study because she focused on one study site and on a particular case namely, the knowledge and use of contraceptive among the female deaf students at Kibi School for the Deaf in the Eastern region of Ghana. Skate (1995) cited in Creswell (2009) explained case study as a strategy of inquiry in which the researcher explores in depth a program, event process or one or more individuals. Cases are bounded by time and activity, and

researcher collect detailed information using variety of data collection procedures over a sustained period of time. Case study would help the researcher to get detailed of information that is relevant to the study.

3.3 Population

The population of the study was made up of all Junior High School (JHS) female students at Kibi School for the Deaf. The population was 43 students which comprises 12 15 and 16 for JHS 1, 2, and 3 respectively. Creswell (2012) defined population as a group of individuals who have the same characteristics.

3.4 Sample Size

A sample size was 27 participants were female students. The selection of participants was based on the students' age and class thus, female students who were fourteen (14) years and above and were in Junior High School (JHS). These students were selected because the researcher presumed that students from age fourteen and above have started menstruating hence might be sexually active and if they do not protect themselves, they would get pregnant so there was the need to select such students who were ready to answer questions on knowledge and use of contraceptives methods.

3.5 Sampling Techniques

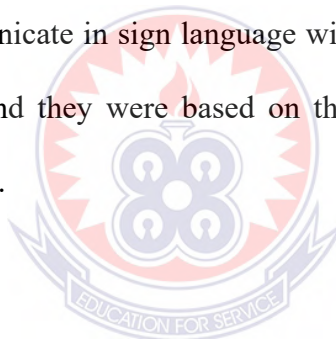
The purposive sampling technique was used to select the participants for this study. According to Hayford (2013), in purposive sampling which is also known as judgmental sampling, the researcher selects the participants and they become representatives of the population. A judgment was made to choose participants who provided vital information to address the purpose of the study. In this study the researcher used her own intuition to select students who were interested to participate in the study.

3.6 Instrumentation

A questionnaire was the instrument selected to gather data for this study. The researcher used this instrument because she wanted to measure the knowledge of students on contraceptives and how they use them. The researcher realized questionnaire was the best instrument.

Questionnaire

A questionnaire is a research instrument that is made up of series of questions which are closed-ended or open-ended. The goal is to collect relevant data from participants which can then be used for a variety of purpose (Ndukwu, 2020). An individual questionnaire was administered to students who fell in the sample size by two teachers who can communicate in sign language with the students. The questionnaire had 25 question items and they were based on the objectives of the study. It was multiple-choice questions.



3.7 Validity

With the assistance of the research supervisor and other research experts, face and content validation of the research instrument was done. The instrument was validated in order to ensure that the instrument measured what it purported to measure.

3.8 Reliability

The reliability of the piloted questionnaire accordingly recorded a Cronbach alpha coefficient value of 0.686. This value was very close to 0.70 value of the original developers of the instrument, that is Ho and Au (2006) got in China, a tropical country just like Ghana.

Pre-test

The questionnaire was pre-tested at Koforidua School for the Deaf with female students who were of the same age as the female students at Kibi School for the Deaf. After the pre-test, the researcher found out that some of the questions were particularly difficult to answer. Some of the questions had the same meaning. The questionnaire was later modified and structured well afterwards and was used for the main study.

3.9 Procedure for Data Collection

The researcher first needed to ask permission from the authorities of Koforidua and Kibi schools for the deaf before the pre-test and the main study was conducted so an introductory letter was obtained from the Head of Department of Special Education, UEW. The researcher requested for introductory letter from the regional education office to be sent to the school.

The researcher visited Kibi School the Deaf to submit and introductory letters from both her Department and the Regional Education Office to the headmaster to inform her to prior to the commencement of the study and presented a letter detailing the purpose of the study and why the school was chosen for the study. The researcher then booked an appointment with the students (date and time). Another visitation was made to the school but this time around for the collection of data. The researcher informed the participants of their right to participate or not and they can withdraw from the study at any stage they wish. The participants were assured that there would be confidentiality in the information they provided hence they were asked not to write theirs names on the questionnaire.

The participants were selected and venue was allocated to the researcher, the questionnaires were administered to the students. The researcher trained and employed two (2) female teachers were in charge of girls club and were good in communicating in sign language and played the role of facilitators by explaining the questions and its corresponding answers and how they would answer them by ticking. The two female teachers were chosen because they had thought in the school for the past five (5) years and were in charge of the girl's club in the school. Sign language was the mode of communication, and they ensured the items in the questionnaire were explained to the understanding of the participants. With the help of the facilitators, the researcher made sure there was no form of communication between the participants during the answering the questionnaire. This was done to ensure that the responses were not affected by views of persons other than the participants. Forty-five (45) minutes was given to the participants to answer the questionnaire, this took place at the school's dining hall. The researcher ensured that all the questions were answered and collected as soon as it was completed by the participants.

3.10 Data Analysis

With the quantitative data, participants were be asked to tick one answer from the answers provided so after which the researcher used the Statistical Package for Social Science (SPSS) software to analyze the data from the questionnaire using frequency and percentages.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.0 Introduction

This chapter presents the analysis and discussion of findings of the study. Questionnaires were administered to a total of twenty-seven (27) students of Kibi School for the Deaf in the East Akyem Municipality in the Eastern Region of Ghana. The findings were generated through the input of the field data collected into SPSS. The findings were presented using tables and figures and the data analyzed.

The analysis focused on the research objectives which have been structured as follows; the knowledge of contraceptive methods among female students who are deaf, the types of contraceptive methods used by deaf students, how deaf female students get access to contraceptive methods and the merits and demerits of contraceptive methods on female deaf students.

4.1 Presentation of Findings

Table 1: Percentage distribution for class of participants

	Frequency	Percent	Valid Percent	Cumulative Percent
JHS 1	9	33.3	33.3	33.3
JHS 2	14	51.9	51.9	85.2
JHS 3	4	14.8	14.8	
Total	27	100.0	100.0	100.0

Source: Field data 2021.

Table 1 shows that out of the 27 respondent who participated in the study, nine (9) participants representing 33.3% of the participants were in Junior High School (JHS1), fourteen (14) representing 51.9% of the pupils were in JHS2 and four (4),

representing 14.8% of the pupils were in JHS3. They provided information to enable the researcher get the needed data.

Table 2: Percentage distribution of age of participants

	Frequency	Percent	Valid Percent	Cumulative Percent
20 +	7	25.9	25.9	25.9
17-19	12	44.4	44.4	70.4
14-16	8	29.6	29.6	
Total	27	100.0	100.0	100.0

Source: Field data 2021.

Table 2 depicts the age category of the participants. From the table, seven (7) representing 25.9 % of the students said they were 20 years and above, 12 students representing 44.4 percent of the total participants were also between the ages of 17-19 and eight (8) representing 29.6 also fell within the age range of 14-16 years.

Table 3: Frequency distribution for participants in relationship

	Frequency	Percent	Valid Percent	Cumulative Percent
No	9	33.3	33.3	33.3
Yes	18	66.7	66.7	100.0
Total	27	100.0	100.0	

Source: Field data 2021

Table 3 shows whether or not the participants had been in a relationship before, eighteen (18) out of 27 students representing 66.7 percent said they had boyfriends, whereas nine (9) of the participants, 33.3 percent said they did not have boyfriends.

In subsequent tables, the participants were also asked if they have had sexual intercourse before. The percentage of the participants who said they have had sexual

intercourse before was 53.3 percent (16) and 40.7 percent of the respondent said they have not had sex before. Out of the total, only 7.4 percent (2) of the respondent said their partners protected themselves and 51.8 % (14) of the participants said the intercourse was unprotected. This was depicted in the frequency Tables 4,5, a frequency distribution level for sexual intercourse and safe sex respectively.

Table 4: Frequency distribution for sexual intercourse

	Frequency	Percent	Valid Percent	Cumulative Percent
No	11	40.7	40.7	40.7
Yes	16	59.3	59.3	
Total	27	100.0	100.0	100.0

Source: Field data 2021

Table 5: Frequency distribution for safe sex

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	2	7.4	7.4	7.4
No	14	51.8	51.9	59.3
No sex	11	40.7	40.7	
Total	27	100.0	100.0	100.0

Source: Field data 2021

4.2 Knowledge of contraceptive method among female students who are deaf.

Table 6: Student knowledge about contraceptive methods

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	11	40.7	40.7	40.7
No	16	59.3	59.3	100.0
Total	27	100.0	100.0	

Source: Field data 2021

This question sought to find out the level of awareness of contraceptive among female students who were deaf specifically at the Kibi School for the Deaf. It was found out that more than half of the participants (59.3%) had no basic knowledge about contraceptive. Only 11 participants representing 40.7% had some basic knowledge about contraceptives. This indicated that majority of the female students at the Kibi School for the Deaf did not have knowledge about contraceptive methods.

When asked how they got to know about the existence and use of contraceptives, two (2) of the participants representing 7.4 percent said contraceptive was introduced to them by their parents, only one person said she got to know about contraceptive through her sex partner. Six (6) of the participants representing 22.2 percent said they were informed by their friends/ peers, whereas two (2) participants representing 7.4 percent said they knew about contraceptive through television programs and eleven (11) representing 59.3 percent said they had not access have to contraceptive methods. This is depicted in the table below with the variable below.

Table 7: Frequency distribution for where student had contraceptive knowledge from

	Frequency	Percent	Valid Percent	Cumulative Percent
Parents	2	7.4	7.4	7.4
Sex partner	1	3.7	3.7	11.1
Friends	6	22.2	22.2	33.3
Social media	2	7.4	7.4	
No one	16	59.3	59.3	40.7
Total	27	100.0	100.0	100.0

Source: Field data 2021

Table 7 depicts the knowledge of contraceptives by the type of method of the participants. Here, the study examined whether participants know any of the types of contraceptive methods, that is, condoms, oral pills or IUD. It also took into account those who don't know any of the aforementioned method types; hence the category, No method.

The participants were asked to state the most common types of contraceptive method they know. It was found out that nine (9) of the participants said they were aware of at least two different types of contraceptives with only two (2) who also said they knew about one type of contraceptive. Among the participants, eight (8) representing 29.6% mentioned that they knew about condoms, two (2) of the participants also representing 7.4 % are had knowledge about oral pills and only one (1) person (3.7%) was aware of the injectable type of contraceptive.

Table below presents the frequency data of the variable interpreted above.

Table 8: Frequency distribution table for the types contraceptive methods known

	Frequency	Percent	Valid Percent	Cumulative Percent
1	1	3.7	3.7	3.7
3	2	7.4	7.4	11.1
4	8	29.6	29.6	40.7
None	16	59.3	59.3	100
Total	27	100.0	100.0	100.0

Source: Field data 2021

2.3 Type of Contraceptive Methods used by Students who are Deaf

This research question how do female students at Kibi school for the Deaf get access to contraceptive sought to establish the type of contraceptives by the type of method

used by female students who are deaf. Here, the study examined whether participants used any of the types of contraceptive methods, and also whether on their first sexual intercourse was protected or not.

From table 9, 20 of the participants constituting 74.1 percent said they had not used any of the contraceptive methods before whiles seven (7) of the participants also constituting 25.9, percent said they had been using contraceptive methods during sexual intercourse. With regards to whether they have used any of the methods on their first sex, seven (7) of the participants constituting 25.9 percent said they had unprotected sex on their first time, four (4) of the participants also representing 28.8 percent said they protected themselves whiles 21.4 percent of three (3) participants said they could not remember. The rest said they had not had sex before.

Table 9: Contraceptive method among female students

	Frequency	Percent	Valid Percent	Cumulative Percent
No	20	74.1	74.1	74.1
Yes	7	25.9	25.9	100.0
Total	27	100.0	100.0	

Source: Field data 2021

4.4 How do female students who are deaf get access to contraceptive methods?

This question sought to find out how female students who are deaf at Kibi School for the Deaf access any of the contraceptive methods. Data gathered from the participants indicate that, accessibility to contraceptives had been a major challenge confronting female student who are deaf. Nineteen (19) of the participants representing 70.4 percent answered “No” when they were asked to state where they have access to the contraceptive methods they use. Four (4) of the participants representing 14.8 percent

said they bought the contraceptive at the pharmacy, whereas three (3), constituting 11.1 percent told the researcher that they acquired the contraceptive from their friends and 3.7 percent also told the researcher that they had access to contraceptive from the health facility.

Table 10: Access to contraceptive methods

	Frequency	Percent	Valid Percent	Cumulative Percent
Nowhere	19	70.4	70.4	70.4
Pharmacy	4	14.8	14.8	85.2
Clinic	1	3.7	3.7	88.9
Friends	3	11.1	11.1	100.0
Total	27	100.0	100.0	

Source: Field data 2021

Also, in a bid to ascertain whether the participants have had any education on the use of contraceptive by any health worker in their school, it was found out that, 85.2 % summing up to 23 participants indicated that no health worker had ever visited their school to educate them on the knowledge and use of contraceptive methods. Only three (3) of the participants constituting 11.1% said they have had some education on contraceptive methods and one (1) person representing 3.7 % stated that they neither remembered nor had any education on contraceptive methods. This implies that education on the knowledge and use of contraceptive among female deaf students is relatively low.

Table 11: Health workers visitation to the school to give information about contraceptive methods

	Frequency	Percent	Valid Percent	Cumulative Percent
Not aware	1	3.7	3.7	3.7
No	23	85.2	85.2	88.9
Yes	3	11.1	11.1	
Total	27	100.0	100.0	100.0

Source: Field data 2021

On the other hand, the participants when asked to provide answers to whether they have ever attempted to acquire any contraceptive method but have been denied access by a health practitioner, 26 of the participants, constituting 96 % responded no indicating that they had not been denied access by a health practitioner and only one person said she had been denied access to contraceptive methods.

Table 12: Denied from accessing to contraceptive methods

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	26	96.3	96.3	96.3
No	1	3.7	3.7	
Total	27	100.0	100.0	100.0

Source: Field data 2021

Also, in the quest to find out the distance which the participants had to travel or go in order to have access to contraceptive methods, the participants were asked to indicate by answering the list of options provided. Out of the total 27 participants, 11 of the participants representing 40.7 percent indicated that they had to travel for a very far distance before they were able to access contraceptives, meanwhile, 22.2 percent of the total participants said access to contraceptive is far from where they resided,

whereas 25.9 percent and 11.1 percent said access to contraceptive was very close and close respectively.

The data which was represented in the frequency table 13 shows that majority of the female students who were deaf were faced with distance difficulty of going for when accessing contraceptive methods.

Table 13: Distance to access contraceptive methods

	Frequency	Percent	Valid Percent	Cumulative Percent
Very close	7	25.9	25.9	25.9
Close	3	11.1	11.1	37.0
Far	6	22.2	22.2	59.3
Very far	11	40.7	40.7	
Total	27	100.0	100.0	100.0

Source: Field data 2021

Furthermore, data gathered by the researcher revealed that health providers seldom visited Kibi School for the Deaf to educate the female students on the use of contraceptive methods. This was established when the participants were asked to state their agreement or disagreement to the questions provided. Twenty-six (26) of the participants representing 96.3 % said that no health provider had ever visited their respective communities with one person who agreed to the question provided.

Table 14: Health provider visit to communities to educate on contraceptive methods

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	26	96.3	96.3	96.3
Agree	1	3.7	3.7	
Total	27	100.0	100.0	100.0

Source: Field data 2021

4.5 What are the merits and demerits of contraceptive methods use on female students at Kibi School for the Deaf?

This research question sought to find out the advantages and disadvantages of the use of contraceptive methods among female deaf students. The researcher asked the participants to state by indicating with a “Yes” or “No” if it is important for adolescent female deaf students to be introduced to the use of contraceptive methods. Majority of the participants, 63% of the participants believed it is not good for adolescent deaf female students to be introduced to using any of the available contraceptive methods though 37% out of the total 27 participants thought using contraceptives by adolescent female deaf students is good.

The participants were further asked to indicate their awareness of possible side effects for using any of the contraceptive methods, 16 of them representing 59.3% indicated their uncertainty whether or not contraceptive methods have a side effect of not. Exactly 29.6 % did not know at all whereas 11% responded “yes” to the question posed to them.

The representation of the views of the participants is however depicted in table 15 and table 16 below.

Table 15: Awareness of effects of using contraceptive methods

	Frequency	Percent	Valid Percent	Cumulative Percent
No	17	63.0	63.0	63.0
Yes	10	37.0	37.0	
Total	27	100.0	100.0	100.0

Source: Field data 2021

Table 16: Contraceptive methods prevents pregnancy

	Frequency	Percent	Valid Percent	Cumulative Percent
Maybe	16	59.3	59.3	59.3
No	8	29.6	29.6	88.9
Yes	3	11.1	11.1	
Total	27	100.0	100.0	100.0

Source: Field data 2021

4.6 Discussion of Findings

This study assessed contraceptive knowledge, use, accessibility and the merits and demerits of contraceptive use among female adolescents who were deaf, using students of Kibi School for the Deaf as a case study. Using the field data obtained in 2021, the results of the study revealed that contraceptive knowledge was almost entirely the sampled common among population.

Knowledge of contraceptive methods

The findings of the study show that participants knowledge about contraceptive methods is relatively low, with 40.7 % of participants knowing at least a method. The most common sources of information regarding contraceptives method among the participants was through their friend/peers representing 22.2%. Participants had knowledge of at least one contraceptive method and this was mostly knowledge of condoms.

One reason why the participants said they become aware of contraceptive methods may be due to the fact that these adolescent female deaf students feel more comfortable to speak about their sexual life with their friends/ peers than with any other person. This indicates that parents and teachers do not talk or educate these students about sex education. Hence these students converse with their peers on such issues, and they might mislead them on the actual or correct use of contraceptives. In the African culture (Ghana to be precise) there is a perception that parents are not supposed to discuss any sexual related issues with their children because it is assumed that the children will engage themselves in such activities without taking proper precautions when doing such acts (Komey, 2016). Again, the data showed that parents are close and but do not talk about sex education to their children exposed them to contraceptive methods. The timing and initiation of parental communication is important when it comes to adolescent upbringing.

As evidence in the data collected, condom is the dominant contraceptive method mentioned by the participants because, at the peak of the HIV epidemic, all programs focusing on HIV prevention revolved around consistent condom use if one could not abstain from sex or be faithful to a partner. Another reason for the high level of knowledge regarding condoms could be due to the fact that condoms are the most popular contraceptive methods used among unmarried adolescents. Given its dual capacity to prevent sexually transmitted infections and unwanted pregnancies, condoms are mostly recommended to adolescents. Again, condom is less expensive and is available at most of the pharmacies within the communities so it is easy to buy them.

The results corroborate to a cross-sectional study conducted in Kintampo by Boamah et al (2014) which showed that about 89% of adolescents who were interviewed knew about at least one contraceptive method. Most of participants mentioned condom. Apart from condoms, a spontaneous response to knowledge of other modern contraceptive methods, such as the pill, injection, and emergency contraceptives, among others, was relatively lower.

It is therefore important that intervention programs that are implemented to improve adolescents' knowledge of contraceptives be intensified.

Types of contraceptives used by female deaf students.

In assessing the use of contraceptives methods among the female deaf students, this study has revealed that the knowledge does not correspond with the use of contraceptive methods among the students. Out of the 27 participants, 20 constituting 74.1 percent confirmed they have not used any type of contraceptive methods before. Although some female deaf students (25.9 percent) had reported ever use a contraceptive method in this research, consistent contraceptive use was very low. Several factors such as level of knowledge, sex, age, cost, and contraceptive availability, among others, might account for this. Even though contraceptive use was low, there was an uneven use of condoms when compared to other contraceptive methods such as oral pills, IUD among others. Possible reasons for this could include the fact that adolescents have easy access to condoms. Condoms are available almost everywhere, ranging from the chemical seller's shops to restaurants. Adolescents do not have to go to a health facility to get condoms, which is in contrast to the other methods. Going to the health facility for reproductive health services could be a difficult task for the female deaf students. In this study, it was revealed that condoms

would have been the most commonly used contraceptive method due to the advertisements and relatively low cost. The fact that adolescents are more knowledgeable about condoms, as compared to the other methods, may contribute to why condoms are mostly used.

How female students who are deaf access contraceptive methods?

Accessibility to contraceptives methods has been a major challenge confronting female deaf student according to results obtained from the survey. It was established that more than 70% of the participants face challenges when accessing any of the contraceptive methods. This could be due to inadequate education on the relevance of contraceptive methods to these students. Another reason could also be attributed to financial challenges as well as the distance these female deaf students would have to go before they could get a contraceptive to buy.

Among the many reasons, one could also say that the female deaf students may feel reluctant to walk into a pharmacy or any health center to request for contraceptives for fear of being tagged as spoilt child. This unwelcoming attitude by service providers could explain why only a few adolescents in this survey have reported health facilities as their source of acquisition of contraceptives. This may limit adolescent female deaf the opportunity to use other contraceptive options that are mostly available at health facilities and not in chemical shops and other places.

The finding corroborates with a research conducted in Nigeria in 2015 by Isuigo-Abanihe and Oyediran, whose results indicated that female adolescents who are from less privilege homes are likely to have unprotected sex as compared to adolescents from rich homes. This means that poverty aggravated gender inequality and conceal

female adolescents' sexual autonomy. For everyone to get access to contraceptives, it must be affordable.

Lelisa (2016) also reported that there are four overlapping dimensions upon accessibility is promised. These include non-discrimination, physical accessibility, economic accessibility and information accessibility.

Finally, the findings also corroborate a report by Yimer et al. (2019) which indicated that some health practitioners have negative perception and attitudes towards females who are blind and deaf, they assume that they are sexually inactive, so most of them face discrimination when trying to access reproductive services (contraceptive).

Merits and Demerits of Contraceptive Use

The researcher sought to find out the advantages and disadvantages which the use of contraceptive methods may have on adolescent female deaf students. The data indicated that, 63% of the participants thought contraceptive methods are not good and must not be introduced to them. The response is not surprising because adolescent deaf students are lacking in depth of knowledge of various contraceptive methods. Misconceptions about various contraceptive methods may influence contraceptive use.

Another factor is due to lack of education on contraceptive methods to the adolescent female deaf students. It is however obvious that information flow on the advantages and disadvantages of using contraceptives among female deaf students is relatively low. The report further stated that many adolescents who start their sexual life as teenagers are not aware of negative consequences which may be associated with irresponsible sexual conduct.

To a large extent, this results from the lack of comprehensive education about sexuality and contraceptive methods in general. Proper sex education and the use of contraceptives should ensure solid knowledge of fertility mechanisms and their regulation and should be supported by parental sex education.



CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMENDSTION

5.0 Introduction

This chapter presents a recap of all major findings of the study. Conclusions are drawn based on these major findings and recommendations are made for consideration by policymakers and further studies.

5.1 Summary of Major Findings

The purpose of the study was assess contraceptive knowledge, use, accessibility and the merits and demerits of contraceptive use among female adolescents who were deaf in Kibi School for the Deaf in the Eastern Region.

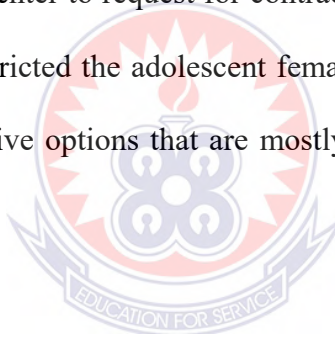
Firstly, the study looked at the knowledge of contraceptive method among female deaf students. Data were collected through the administering of questionnaires and it was found out that only a little above half of the participants could explain what contraceptive methods mean and could describe some of the types of modern contraceptives. This is however not encouraging because the level of education among the female deaf students was relatively low because the common sources of information regarding contraceptives methods was through their friend/peers who are not health professionals. The commonly known methods among the participants was the male condom.

With regards to the type of contraceptive methods used by students who are deaf, the findings of the study showed that consistent contraceptive use usually among the female deaf students was relatively low. Low level of knowledge, sex, age, cost, and

contraceptive availability, among others, were observed to be the cause for the low patronage of contraceptive methods among the female deaf students.

More often, associating the use of contraceptives to promiscuous lifestyle and also belittling, rebuking, mocking, or sometimes driving away by service providers at health facilities have led to quite a number of the female deaf students not being ready to use modern contraceptive methods.

In relation to how female deaf students get access to contraceptive methods, the result showed that almost all the participants are faced with the challenge of accessibility. The study also shows that the female deaf students feel reluctant to walk into a pharmacy or any health center to request for contraceptive for fear of being tagged as spoilt child. That has restricted the adolescent females who are deaf the opportunity of using other contraceptive options that are mostly available at health facilities and not in chemical shops.



5.1 Conclusion

The ensuing conclusions are the results of field research and data analysis from empirical and theoretical perspectives.

Overall, it is important to encourage the use of contraceptive methods among female deaf students. The surest way to prevent unwanted pregnancy as well as contracting Sexually Transmitted Infections (STI's) is considering their condition.

Contrary to the above, findings of the study however show that most of the female students who are engaging in sexual activities lack knowledge about contraceptive methods but few of them have knowledge of, at least one contraceptive method, and this knowledge is condom. The awareness level therefore does not correspond with

the usage. The study revealed that accessing the contraceptive methods was a challenge because there was no education on it and distance involve in getting access to it is long. Again, it was revealed that the participants had misconception about the use of contraceptive method.

5.2 Recommendations

The following recommendations are made based on the findings of the study and the conclusions drawn from the analysis. It also identifies some contraceptive method issues which policymakers should consider and as well for further studies.

First the government as a matter of interest through the Ministry of Education and the Ghana Education Service should make the learning of reproductive health education a part of the education curricular of students with special needs to enhance the impartation of knowledge and use of contraceptive methods.

Parents and teachers should serve as the first source of information on reproductive health (sex education and contraceptive methods) to female students at Kibi school for the deaf. There is a need for parents and teachers to find ways to educate the female students on sex and reproductive health of adolescence because sex education is vital in providing information and knowledge to enable adolescent make decisions concerning their sexual activities and its outcomes.

Visitation of health workers to the school. Health workers should visit Kibi school for the deaf and provide information on contraceptive methods so that the students will have in-depth knowledge about the different types and to accept to use them.

The merits and demerits of using and not using contraceptive methods should be emphasized during teaching at Kibi school for the deaf. This will assist those making informed or appropriate choices or decisions.

There should also be easy access to health centers and availability of contraceptive methods so that deaf students within the reproductive age can have the freedom to choose which contraceptive methods they want. To conclude, adolescent sexual reproductive health services should be youth friendly and affordable and this must be ensured by the Ministry of Health through the Ghana Health Service.

5.3 Suggestion for Further Study

The study covered only a school for the Deaf with emphasis on the female students. This shows that the focus of the study was primarily on contraceptive knowledge and use among female adolescents without taking into consideration the contraceptive concerns of their male counterparts. Hence, the outcome of this study may be bias. It is therefore recommended that in addressing such concerns, future research work in such fields must consider both interests in order to tackle the knowledge and use of contraceptive methods among both deaf students.

Future researchers may also open up the study by using multiple- cases to explore both male and female students who are deaf and visually impaired.

Finally, it is recommended for future researchers to employ the mixed-method techniques to explore the knowledge and use of contraceptive methods among female deaf students since it can collect both qualitative and quantitative data simultaneously allowing perspectives from each method because results obtained using a qualitative method cannot be generalized.

Also, all qualitative research findings are often challenged with external validity issues as qualitative designs are deemed to be context-specific by nature (Criswell 2003).



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APPENDIXES

APPENDIX I

BASIC INFORMATION

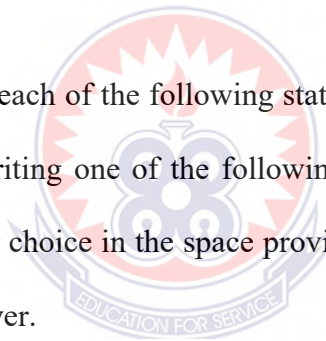
This questionnaire was designed to measure knowledge and use of contraceptives among female students who are in Kibi School deaf in the eastern region of Ghana.

Please take a few minutes to complete the attached questionnaire below. It is important that you respond openly and honestly to the survey for accurate results. Your responses are completely confidential and will only be presented for the overall profile.

Thank you for agreeing to participate.

(Patience Sedem Alagbo)

Please indicate how well each of the following statements represents your knowledge on the above topic by writing one of the following coded response choices. Kindly tick the alphabet of your choice in the space provided. Please leave the item blank if you do not know the answer.



BASIC INFORMATION

<i>CLASS</i>		
<i>AGE</i>	14-16 ()	17-20()	above 20()
Do you have a boyfriend?	a. Yes []	b. No []	
Have you had sex before?	a. Yes []	b. No []	
(If yes), was it unprotected?	a. Yes []	b. No []	

KNOWLEGDE

Have you heard about contraceptive before? a. Yes [] b. no [] c. Maybe []

Who introduced contraceptive(s) to you/ how did you get to know about contraceptive(s)? a. Parents [] b. Friends/peers [] c. Sex partner [] d. Social media (TV/Facebook) [] e. Siblings []

How many contraceptives do you know/have heard of? a. 2 [] b. 1 [] c. 4 [] d. 5 and more []

The most common contraceptive you know is? a. Condom [] b. Oral pill [] c. IUD [] d. Injectable []

USE

Have you ever used contraceptive before? a. Yes [] b. No []

Did you use contraceptive at your first sex? a. Yes [] b. No [] c. I don't remember []

Do you still use contraceptives? a. Yes [] b. No []

Which type have you ever used? a. Condom [] b. Injectable [] c. Pills [] d. Safe period [] e. IUD [] f. Implant []

Which type are you using currently? a. implant [] b. Injectable []

c. Pills [] d. IVD [] e. Safe period [] f. Condom []

How often do you use contraceptive during sex? a. Always [] b. Most times [] c. Once a while [] d. I don't use []

Once withdrawal takes place, pregnancy will not occur. a. Strongly agree []

b. Agree [] c. Never [] d. Disagree [] e. Strongly Disagree []

ACCESSIBILITY

Where do you get the contraceptives you use? a. pharmacy [] b. Health facilities [] c. Parents [] d. Friends []

Has any health worker come to your school to talk about how/where you can get contraceptives? a. Yes [] b. No [] c. I do not remember []

Have you ever talked about your sexual feeling to your house mothers or parents before? a. Yes [] b. no [] c. I do not remember []

Has a health practitioner denied you from access to contraceptives? a. Yes [] b. No []

How many times? a. Several times [] b. Sometimes [] c. Never []

What is the distance of the health facility from your home? a. Very far [] b. Far [] c. Close [] d. Very close []

Who are you able to discuss sex issues with? a. Siblings [] b. Peers [] c. Teachers [] d. Parents []

Healthcare providers in my community have been educating the adolescents on contraceptives. a. Strongly agree [] b. Agree [] c. Never [] d. Strongly disagree []

MERITS AND DEMERITS

Do you think the use of contraceptive is good? a. Yes [] b. no [] c. Not always []

What is your reason for using contraceptive? a. Prevent pregnancy [] b. Prevent STIs [] c. Avoid abortion [] d.

Do you know there are side effects of using contraceptives? a. yes [] b. no [] c. maybe []

APPENDIX II



INSERT: the researcher assisting students of Kibi School for the deaf to answer the pre-test questionnaires

APPENDIX III



INSERT: students of Kibi school for the deaf answering the questionnaire

APPENDIX IV



UNIVERSITY OF EDUCATION, WINNEBA

FACULTY OF EDUCATION & STUDIES
DEPARTMENT OF SPECIAL EDUCATION

P. O. Box 25, Winneba, Ghana

sped@uew.edu.gh

+233 (020) 2041069

13th August, 2021

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

LETTER OF INTRODUCTION: MS. ALAGBO PATIENCE

I write to introduce to you, **Ms. Alagbo Patience** an M.Phil. Student of the Department of Special Education with index number 200027378.

She is currently working on his thesis on the topic: **"Knowledge and Use of Contraceptive Methods among Female Students at Kibi School of Deaf in the Eastern Region of Ghana"** She needs to do interview and administer questionnaire to the students.

I would be grateful if you could give her the needed assistance to enable her collect the data.

Thank you for the consideration and assistance.

Yours faithfully,

MRS. JOYCE O. M. TSATSU
for: (Ag. Head of Department)



Attn. @ Madam Asem Vicentia
@ Madam Asamoah Anita



APPENDIX V

GHANA EDUCATION SERVICE

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

My Ref. No. GES/ER/PG.1/Vol.3/.....

Your Ref No.....



REPUBLIC OF GHANA

REGIONAL EDUCATION OFFICE,
P. O. BOX KF 99,
KOFORIDUA.

25TH OCTOBER, 2021

SEDEM ALAGBO PATIENCE
UNIVERSITY OF EDUCATION
FACULTY OF EDUCATIONAL STUDIES
DEPARTMENT OF SPECIAL EDUCATION
WINNEBA


LETTER OF INTRODUCTION **MS. SEDEM ALAGBO PATIENCE**

I write to introduce to you, **Ms. Sedem Alagbo Patience** a final year M.Phil Student of the Department of Special Education at the University of Education, Winneba.

She is working on her thesis on the topic: "Knowledge and Use of Contraceptive Methods among Female Students at Kibi School for the Deaf and Koforidua School for the Deaf in the Eastern Region.

Management therefore entreats you to support her to undertake the research in a conducive atmosphere.

Thank you.

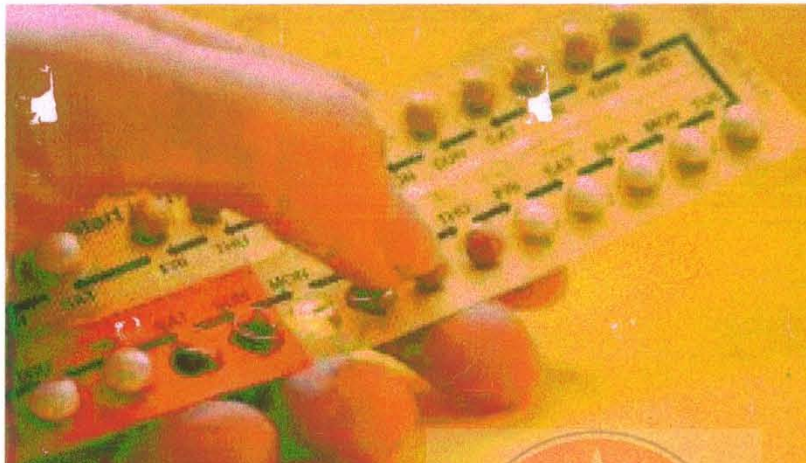

MARGARET NSIAH-ASAMOAH (MRS)
REGIONAL DIRECTOR (E)

Cc: The Municipal Director, GES, Abuakwa South, Kibi
The Municipal Director, GES, New Juaben South, Koforidua
The Head, Kibi School for the Deaf, Kibi
The Head, Koforidua School for the Deaf, Koforidua

APPENDIX VI

PICTURES DEPICTING SOME TYPES OF CONTRACEPTIVES SHOWN TO STUDENTS DURING DATA COLLECTION

ORAL CONTRACEPTIVE



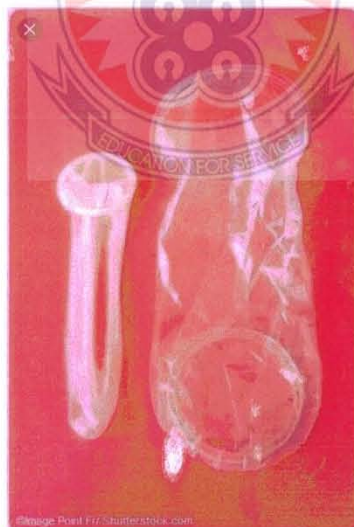
IPLANT



INJECTABLE



CONDOM



IUD

