LEVEL OF KNOWLEDGE IN REPRODUCTIVE HEALTH PRACTICES AMONG SENIOR HIGH SCHOOL GIRLS IN GREATER ACCRA REGION: A CASE STUDY OF TWO SENIOR HIGH SCHOOLS

BY

AVERIYIRE, PAUL

(10221558)

THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN A PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF MPHIL HEALTH SERVICES MANAGEMENT DEGREE

JULY 2015
DECLARATION

I do hereby declare that except for references to other works which have been duly acknowledged, this work is the result of field work carried out by me under the supervision of Dr. Patience Aseweh Abor in the Department of Health Services Management. I further declare that as far as I am aware, this work has not been presented in part or in full anywhere for a degree or certificate.

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AVERIYIRE PAUL       DATE
( STUDENT)

INTEGR PROCESSAMUS
CERTIFICATION

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DR. PATIENCE ASEWEH ABOR DATE

(SUPERVISOR)
DEDICATION

This thesis is dedicated to my lovely brothers, Michael and Stephen and my sister, Helena.

Without their encouragement and support, I would not have come this far.
ACKNOWLEDGEMENT

I am most grateful to God Almighty for His mercies and grace which has seen me through the thick and thin and I am forever grateful. I wish to express my profound gratitude to my supervisor, Dr. Patience Aseweh Abor for her priceless contribution to this work. I am particularly grateful for her time, advice, encouragement and healthy criticisms to ensure that this work comes out more refined. I also acknowledge the support of my family and friends more especially Foster A. Opoku-Mensah who has helped me in proof-reading this work.
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# Social Learning Theory

Social learning theory is a psychological approach that emphasizes the role of observation and imitation in the acquisition of new behaviors. It suggests that individuals learn new behaviors by observing and imitating the actions of others. This theory posits that people do not learn by trial and error alone, but rather through the observation and imitation of others. This concept is particularly relevant in the context of reproductive health, where individuals may learn about contraceptive methods and reproductive health information through observation and imitation.

## Conceptual Definition

The concept of social learning theory is based on the idea that individuals learn new behaviors through observation and imitation. This process involves the acquisition of knowledge and skills through the observation of others' behaviors, which can then be replicated or modified to fit the individual's needs and circumstances. In the context of reproductive health, this means that individuals may learn about contraceptive methods and reproductive health information through observation and imitation, which can influence their reproductive decision-making.

## Contraceptive/Contraception

Contraception refers to the use of methods and devices intended to prevent pregnancy. It includes both traditional and modern methods, each with its own advantages and disadvantages. In the context of social learning theory, the adoption of contraceptive methods can be influenced by the observation and imitation of others who have successfully used these methods.

## Reproductive Health Information

Reproductive health information encompasses a wide range of knowledge, including but not limited to information about contraceptive methods, sexually transmitted infections, and maternal and child health. This information can be disseminated through various channels, including schools, mass media, and peer networks. Social learning theory suggests that individuals may learn about reproductive health issues through the observation and imitation of others who have accessed this information.

## Methods of Contraceptives

Methods of contraception can be divided into traditional and modern methods. Traditional methods, such as the rhythm method and withdrawal, are based on natural processes and have lower levels of effectiveness compared to modern methods. Modern methods, such as condoms, birth control pills, and intrauterine devices, offer higher levels of protection and can be more effective when used correctly and consistently.

## Knowledge on Reproductive Health Issues

Knowledge on reproductive health issues is crucial for making informed decisions about contraception and sexual health. Individuals who have access to accurate and comprehensive information are more likely to adopt effective contraceptive methods and engage in healthy sexual practices. Social learning theory suggests that the acquisition of reproductive health knowledge can be facilitated through observation and imitation.

## Empirical Literature

Empirical literature on reproductive health includes research studies that have been conducted to understand the factors that influence reproductive behavior. This literature can provide insights into the impact of social learning theory on reproductive decision-making and can inform the development of targeted interventions to promote contraceptive use.

## Individual Characteristics and Behaviors

Individual characteristics, such as age, gender, and cultural background, can influence reproductive behavior and the adoption of contraceptive methods. Social learning theory posits that individuals may learn about reproductive health issues and contraceptive methods through the observation and imitation of others who share similar characteristics.

## Family and Household Factors

Family and household factors, such as income, education, and social support, can also influence reproductive behavior. Social learning theory suggests that individuals may learn about reproductive health issues and contraception through the observation and imitation of family members and household members who have access to reproductive health information.

## Community Factors

Community factors, such as peer and partner networks and mass media, can influence reproductive behavior and the adoption of contraceptive methods. Social learning theory posits that individuals may learn about reproductive health issues through the observation and imitation of peers and partners who have access to reproductive health information.

## Access to Information on Reproductive Health

Access to information on reproductive health is a critical factor in the adoption of contraceptive methods. Social learning theory suggests that individuals may learn about reproductive health issues through the observation and imitation of others who have access to reproductive health information.

## Perspectives of Adolescents on Reproductive Health Information

Perspectives of adolescents on reproductive health information are an important consideration in the development of reproductive health interventions. Social learning theory suggests that adolescents may learn about reproductive health issues through the observation and imitation of peers and partners who have access to reproductive health information.

## Conceptual Framework

A conceptual framework is a theoretical model that provides a basis for understanding the relationships between different factors that influence reproductive behavior. Social learning theory can be used to develop a conceptual framework that can guide the design and implementation of reproductive health interventions.

## Summary

In summary, social learning theory provides a valuable framework for understanding the role of observation and imitation in the acquisition of new behaviors. In the context of reproductive health, this theory suggests that individuals may learn about contraceptive methods and reproductive health information through the observation and imitation of others. By understanding the role of social learning theory, interventions can be designed to promote the adoption of effective contraceptive methods and improve reproductive health outcomes.
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<td>MRA</td>
<td>Men in Reproductive Age</td>
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<td>RH</td>
<td>Reproductive health</td>
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<tr>
<td>NGOs</td>
<td>Non-Governmental Organizations</td>
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<td>STIs</td>
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<td>UNAIDS</td>
<td>Joint United Nations Program on HIV/AIDS</td>
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<td>UNICEF</td>
<td>United Nations International Children's Emergency Fund</td>
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<td>PHC</td>
<td>Population and Housing Census</td>
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<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
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<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
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<tr>
<td>SRH</td>
<td>Sexual and Reproductive Health</td>
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<tr>
<td>RTI</td>
<td>Reproductive Tract Infection</td>
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<tr>
<td>PPAG</td>
<td>Planned Parenthood Association of Ghana</td>
</tr>
<tr>
<td>GDHS</td>
<td>Ghana Demographic health Survey</td>
</tr>
<tr>
<td>SHS</td>
<td>Senior High School</td>
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<tr>
<td>ARSRC</td>
<td>African Regional Sexuality Resource Centre</td>
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<td>MICS</td>
<td>Multiple Indicator Cluster Survey</td>
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ABSTRACT

Adolescent sexual and reproductive health issues have become increasingly prominent and generated widespread international concern. This study was designed to investigate the level of knowledge of senior high school girls on reproductive health practices. This objective was achieved by exploring respondents’ knowledge on contraceptives and pregnancy prevention; exploring respondents’ level of knowledge on HIV/AIDS and finding out the challenges adolescents face in accessing knowledge on contraceptives. Three research questions were asked and hypotheses tested. A mixed method was used through survey and interview among two senior schools in Greater Accra Region namely Kinbu Senior High School and Apostle Christo Asafo Senior High School. Findings indicate that the type of school (private or public) attended has no effect on their knowledge in contraceptives. Some challenges in accessing knowledge on contraceptives were discussed and analyzed. It was recommended that nurses and other health workers should not humiliate adolescents who show interest in contraceptives; future researchers should also look at how adolescents perceive reproductive health issues and how their personal, social, cultural affect their reproductive health issues; the study has also provided data which will inform policy makers in the implementation of adolescents’ reproductive health programmes in Ghana and the world at large.
CHAPTER ONE
INTRODUCTION

This chapter introduces the background to the study. It includes the problem statement, the objectives and research questions, hypotheses and the significance of the study. The chapter also looks at the operational definition and organization of the study.

1.1 Background of the study

Adolescent reproductive health issues have become a global concern in the world (Dongxian, 2009). With the global focus on achieving the Millennium Development Goals (MDGs) by 2015, adolescents’ reproductive health issues, have become prominent (Ringheim & Gribble, 2010, p. 33). Therefore, investing in reproductive health services that meet the needs of young women and men is central to reaching MDGs 4, 5, and 6 (Ringheim & Gribble, 2010, p. 33).

The period of adolescence is a transitional period that marks the end of childhood and the beginning of adulthood and it concerns individuals within the ages of 10 and 19 years. (Chinyere et al., 2008). The World Health Organization (WHO, 1981) puts the period of adolescence between 10 and 19 years of age. For the purpose of this study, adolescent is a young male or female of age between 10 and 19 years.

Reproductive health (RH) affects the total well-being of a person (Chinyere et al., 2008: p. 3). Reproductive health faces the following challenges: AIDS/HIV, abortions, advocacy, availability and accessibility of health services (Nema & Sharma, 2007).

In China, the behaviors of adolescents in relation to sexuality are becoming increasingly profuse with the age of commencement of sexual activities occurring quite early and the
delay in marrying which is due to modernization, economic development, and exposure to the
mass media (Dongxian, 2009).

In Africa, the adolescent girls in many societies are confronted with pressure to engage in
sexual activity and are seen to be vulnerable. Ikwuako (2001) indicates that girls who are
sexually active have a high chance of contracting and transmitting sexually transmitted
diseases (STDS) but they are not adequately aware of protecting behavior. Between 26% and
46% of unmarried teens, ages 15-19 in Ghana, Kenya, Liberia and Togo were reported to be
sexually active (Adegoke, 2011).

In Ghana, reproductive health problems are worsened by the early commencement of sexual
activity, inadequate knowledge of contraception and limited access and utilization of health
services (Awusabo-Asare et al, 2006)

It is for the above reasons that this study aimed at finding out the level of knowledge of
reproductive health issues among senior high schools girls in the Greater Accra Region using
Kinbu Senior High School and Apostle Christo Asafo Senior High School as case studies.

The choice of Accra was necessitated by the fact that many parents in Accra are not able to
adequately cater for the needs of their school going girls. As a result, many of them make a
living through sexual activity (Park et al., 2002; Raymundo & Laguna, 2001; Cruz, Laguna, &
Raymundo, 2001).

Also, rampant separation between husbands and wives, in Accra do not make adolescents get
both motherly and fatherly love necessary for healthy sexual and reproductive guidance.
(Park et al., 2002; Raymundo & Laguna, 2001; Cruz, Laguna, & Raymundo, 2001).
1.2 Statement of Problem

Generally speaking, reproductive health is an important component of health according to Kotwal et al. (2008). Consequently, many countries are now gradually putting the issue of reproductive health as a development issue (Knut-Inge et al., 2005). Reproductive health has also been a focus of research and academic work (Knut-Inge, et al., 2005; Rani & Lule, 2004; Eaton et al., 2011).

Knut-Inge et al., (2005) for instance conducted a study on sexual behavior of high school students and the results showed that 46% of high school students have had sexual intercourse at some point in their lives and 6% prior to the age of 13 (Eaton et al., 2010). This kind of early sex if unprotected may result in reproductive health problems such as unwanted pregnancy, STDs, etc. The (New York City Department of Health and Mental Hygiene (2011) and Bernstein and Hansen (2006) have indicated that 87% of more than 20,000 teenage pregnancies between the ages of 15 to 19-year-olds are unplanned.

Adolescent sexual behavior is a phenomenon found to be high among African adolescents. For instance in 2001, Zambian Behavior Survey indicates that by age 19, only 16% of the youth said they had never had sex. Due to inadequate knowledge on contraceptives, this adolescent sexual behavior has often resulted in reproductive health problems (Zambian Sentinel Survey 1999 as cited in Human Development Initiative 2001).

Having no knowledge on contraceptives could result in exposure to inaccurate or incomplete information which may lead to contracting sexually transmitted infections (STIs), experiencing unwanted pregnancies and other maternal problems (Rani & Lule, 2004). This is a clear indication that young people have special reproductive health needs which requires special knowledge on reproductive health issues.
Contraceptive use is primarily dependent on the level of knowledge. Knowledge on contraceptives was not a significant factor in relation to condom use. However, substantial gaps are observed in young people’s functional knowledge about sexual and reproductive health (Action Aid, 2012). Other studies showed that knowledge regarding where to buy condoms was the strongest knowledge variable. For example, a study found that there was a significant difference between where to buy condoms and the use among adolescents who have knowledge on such contraceptives (Meekers & Calves, 1999). In addition, few studies in Ghana have looked at adolescent knowledge, especially about where to buy condoms (Population and Housing Census, 2010; Ghana Demographic health Survey, 2008).

Also, information gathered from Planned Parenthood Association of Ghana (PPAG) shows that the level of knowledge in reproductive practice among senior high schools in Ghana may virtually be non-existent (Alan Guttmacher Institute, 2004, 2006). It could therefore be argued that providing adolescents with access to information, education and services is the main challenge for future programmes (Kotwal, Gupta & Gupta, 2008).

This informs this study’s focus on finding out the extent to which adolescent girls in senior high schools have acquired knowledge on reproductive health.

1.3 Research objectives

The purpose of the research was to investigate the level of knowledge on reproductive health practices in senior high schools in Greater Accra. To achieve the research purpose, the following objectives were outlined:

**Broad objective**

To explore the general level of knowledge on reproductive health in the Greater Accra Region
Specific objectives

1. To explore respondents’ knowledge on contraceptives and pregnancy prevention.

2. To explore respondents’ level of knowledge on HIV/AIDS.

3. To find out the challenges adolescents face in accessing information on contraceptives.

1.4 Research questions

In response to the objectives, the study answered the following research questions in order to achieve the stated objectives:

1. What is the respondents’ knowledge on contraceptive and pregnancy prevention?

2. What is the respondents’ level of knowledge on HIV/AIDS?

3. What challenges do adolescents face in accessing information on contraceptives?

1.5 Hypotheses

1. Hypotheses 1: Public SHS students have acquired a higher knowledge on HIV prevention than private SHS students.

2. Hypotheses 2: Public SHS students have acquired a higher level of knowledge on contraceptives and pregnancy than private SHS students.

3. Hypotheses 3: There is a significant difference on the level of knowledge on contraceptives and pregnancy prevention between SHS students in F1 and F2
4. Hypotheses 4: There is significant difference on the level of knowledge on contraceptives and pregnancy prevention between Catholic students and other religious denominations.

1.6 **Significance of the Research**

The significance of the research was viewed along three (3) strands; research, practice and policy. The research goes beyond the scope of already existing studies (Population and Housing Census 2010; Ghana Demographic health Survey, 2008) on the level of knowledge of reproductive health among adolescent girls in Ghana. It examined only senior high school girls’ level of knowledge on reproductive health practices in Greater Accra. Studies done in Ghana so far shows that data on adolescents’ level of knowledge on reproductive health at senior high school level is virtually non-existent (Awusabo-Asare et. al., 2006; Action aid, 2012; Alan Guttmacher Institute, 2004, 2006).

This research will be beneficial to public education policy. It will inform knowledge on reproductive health among adolescents’ girls thereby addressing challenges in the adoption and implementation of adolescent health policy. The study could also facilitate the development of strategies to help improve adolescents’ reproductive health in Ghana.

With respect to policy, this study will provide the necessary data to inform policy makers on the implementation of adolescents’ reproductive health programmes. The research will also be used by stakeholders and partners who have much interest in supporting the implementation of adolescent’s girls reproductive health worldwide. The results of this research may inform and shape the reproductive health policy in senior high schools and by extension cover all levels of schools in Ghana.
1.7 Operational Definition

**Health:** Health is the social, economic, cultural, spiritual and political wellness of the individual in a particular period of time.

**Reproductive health:** It is the totality of the individual life regarding his physical, social and psychological being. In otherwise, reproductive health affects every area of the individual’s life. This includes the individual ability to have a safe sex life, access to safe, affordable and efficient health care.

**Sexuality:** It is anything that has to do with the individual sexual life or sexual activity.

**Sexual behavior:** It is a person's sexual practices i.e., the way and manner in he/she engages in sexual activity.

**Knowledge:** Knowledge means having awareness and understanding of a particular issue.

**The Level of Knowledge:** The extent to which adolescent are aware and understand reproductive health issues.

**Practice:** It is the application of rules and knowledge. Otherwise the ability to put into action the knowledge acquired.

**Contraceptive/Contraception:** The use of various means to avoid pregnancy, sexual transmitted diseases and other health related problems.

1.8 Organization of the Study

In all, the study is structured into six main chapters. The first chapter provides an introduction/background. The objectives, research questions, hypotheses and significance of the study are also included in the chapter one.
Chapter two of the study focuses on the results of the literature reviewed. Literature was
reviewed from both empirical and theoretical perspectives. Chapter two also discusses the
theoretical framework of the study.

Chapter three provides an in-depth explanation of the methodology used to carry out the
study. It discusses the site selection, research design, and study approach, sampling
techniques and size, sources of data as well as methods of data analysis.

The fourth chapter captures the data analysis. A presentation and discussion of the findings
are captured in chapter five. The findings are discussed in relation to the important concepts
and theoretical framework presented in Chapter two.

Finally, chapter six provides the summary, conclusions, and recommendations of this study.
The findings of the study are summarized and recommendations to address future adolescent
reproductive health policy and research are provided.
2.1 Introduction

Adolescent sexual activity if unprotected may result in such problems as unwanted pregnancy and STDs among others. For instance, the New York City Department of Health and Mental Hygiene (2011); Bernstein and Hansen, (2006) have indicated that 87% of more than 20,000 teenage pregnancies in 15 to 19-year-olds are unplanned.

In 1998 and 2001, Zambian Behavior Survey revealed that adolescent sex has often resulted in problems like one out of every six urban youth aged 15-19 years being HIV positive (Zambian Sentinel Survey, 1999 as cited in Human Development Initiative, 2001).

Limited knowledge on contraceptives and exposure to inaccurate information may lead to contracting STDs, experiencing unplanned pregnancies and maternal problems (Rani & Lule, 2004). This is a clear indication that young people have reproductive health needs which require deep knowledge on reproductive health issues. It is this reason that the study examines the adolescents’ level of knowledge in two senior high schools in Greater Accra.

The findings of the research will be needed by stakeholders and partners interested in supporting the implementation of adolescent girls’ reproductive health worldwide and addressing challenges in the adoption and implementation of adolescent health policy.

This chapter presents the results of literature reviewed on the level of knowledge in reproductive health practices. It starts with the review of theories deemed relevant to the study including the theory of planned behavior and social learning theory. The study gathered data on the already existing literature on the following issues: conceptual definition of health,
reproductive health issues, reproductive health information, empirical literature, knowledge on reproductive health issues, knowledge of contraceptives, and access to information on reproductive health and theoretical literature. With respect to empirical literature, the study reviewed literature on some factors such as individual, household, community and social factors that influence adolescent level of knowledge on reproductive health.

2.2 Theoretical literature

The health belief model (HBM), theory of reasoned action, and social cognitive theory are some of the theories that influence adolescents’ behavioral outcomes. However, the study used the theory of planned behavior which is an extension of the theory of reasoned action and social learning theory.

2.2.1 Theory of planned behavior

The study was underpinned by the theory of planned behavior and social learning theory. The theory of planned behavior is an extension of the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) made necessary by the original model’s limitations in dealing with behavior over which people have incomplete volitional control. A central factor of the theory of planned behavior is the individual intention to act a given behavior. Intentions are considered as motivational factors that influence a behavior; they are indications of how people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior. The theory proposes three determinants of intention: the attitude toward the behavior, subjective norm and perceived behavioral control (Ajzen, 1991).

**Personal attitude:** This refers to an individual’s positive or negative beliefs in relation to a specific behavior. It is the extent to which an individual has a favorable or unfavorable outcome evaluation of the specific behavior (Ajzen & Fishbein, 1977).
Subjective norm: This refers the influence of social pressure that is perceived by an individual to do or not to perform a particular behavior. The social pressures come from parents, teachers, guardians who are refer to as significant others or groups from the individual’s environment (Ajzen & Fishbein, 1980). Subjective norms are a function of a person’s beliefs regarding what each referent thinks he or she should do and the motivation to comply with these referents (Ajzen, 1991).

Perceived behavior control: It is the perception about the ease or difficulty in putting up a particular behavior. It reflects past experiences and foreseen obstacles. The more positive the attitude and subjective norm regarding the behavior, and the greater the perceived behavioral control, the stronger the individual’s intention to exhibit the behavior will be (Ajzen, 1991).

The theory of planned behavior may be regarded as a useful conceptual framework for dealing with the complexities of human social behavior like adolescents behaviors that are difficult to understand. Concepts are defined in a way that allows for forecast and consideration of behaviors in stated circumstances. Attitudes and subjective norms towards the behavior, and perceived control with respect to the behavior help to foresee behavior intentions with a great mark of correctness. In this regard, these intentions together with perceived behavioral control, can best explain significant percentage of capriciousness in behavior (Ajzen, 1991).

2.2.2 Social learning theory

Social learning theory concentrates on learning which happens in a social environment. It states that people learn from one another, through models such as observational learning, imitation, and modelling. Bandura (1971) is the main proponent of this theory. Universal principles of social learning theory are that individuals can learn from others by observation. Thus, the behavior of others and the consequences of those behaviors can be learnt by
observation. Behavior modification may or may not be the result of learning. The theory believes that seasoning plays an important role in learning. People’s behaviors are greatly affected by prospects and the awareness of future supports or punishments. Social learning theory may be considered “as a tie between behaviorist learning theories and that of cognitive learning theories” (Lincoln Sudbury Regional High School, 2012, p. 1). The theory may be useful to understanding adolescents’ knowledge on reproductive health because most adolescents learn a lot from their peers through observation, imitations and modeling.

Due to the complex nature of adolescent behavior in relation to their reproductive health issues, two stand-alone theories have been used so that a better understanding of the behavior of adolescents could be found.

2.3 Conceptual definition

Health: According to WHO, ‘‘Health is a complete state of physical, mental and social wellbeing, and not merely the absence of disease or infirmity’’ (WHO, 1948 as cited by Jakab, 2011, p. 1).

It is the changing trend in a physical and mental potential well-being of an individual which satisfies the demands of life corresponding to his or her age, way of life and personal responsibility. Health is about the individual welfare devoid of disease or infirmity; it also has to do with individual’s human rights (Saracci, 1997 as cited by Awofeso, 2012).

All these definitions point to the fact that health does not just mean the physical well-being of the individual but refers to the totality of the individual, that is his or her social, emotional, spiritual and cultural well-being.

Reproductive health: “It involves the state of complete well-being of an individual in its entirety whether physical, emotional or psychological. It does include matters affecting the
Overall well-being of a person” (Chinyere et al., 2008, p. 3). This definition implies that individuals will be able to have a satisfying and safe sex life, access to safe, effective, affordable and acceptable methods of family planning based on informed choice and dignity that ensures prevention and treatment of STIs and prevention and cure of HIV/AIDS.

According to Sai (1986), reproductive health can be defined as the ability of men and women to undertake sexual activity safely, whether or not pregnancy is desired, and, if desired, for the women to carry the pregnancy to term safely, deliver a healthy infant, and be prepared to nurture it (cited by Nema & Sharma, 2007). It is the totality of the individual’s life regarding his or her physical, social and psychological being.

**Sexuality** has been defined as “a central aspect of human being throughout life and encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy and reproduction” (African Regional Sexuality Resource Centre” (ARSRC 2003, p. 17).

**Sexual behavior** is a person's sexual practices, that is, the way and manner in which he/she engages in sexual activity.

**Knowledge:** Knowledge means awareness, understanding and problem-solving capacity.

**The Level of Knowledge:** The extent to which adolescents are aware and understand reproductive health issues.

**Practice:** It is the application of rules and knowledge. In other words the ability to put into action the knowledge acquired.
2.4 Contraceptive/Contraception

Contraception/contraceptive involves the use of various means such as devices, drugs, agents, sexual practices, or surgical procedures in order to prevent pregnancy and protecting the individual against some sexually transmitted infections. Contraception simply means prevention of pregnancy. There are a number of different methods and it is imperative to choose contraceptive that is appropriate to meet the needs of an individual. The choice of contraception should be based on the following: accurate information about it, the usefulness of it in pregnancy prevention, the ease at which it can be used and its side effects. Women are able to plan if and when they want get pregnant through the use of contraception. There are basically two types of contraception, namely traditional and modern methods.

2.5 Reproductive health information

The study examines where adolescents access reproductive health information and the challenges they face in the process. There were about 40.9% of respondents’ who accessed information on how contraceptives are used on regular basis whereas 41.2% accessed information on the various methods of pregnancy prevention regularly (Uddin & Choudhury, 2008). Again, the data showed that less than 50% of the respondent made use of pregnancy prevention information often. Information on how to terminate pregnancy safely was used by 44.1 per cent of the respondents regularly and about half of adolescents were not able to properly identify the signs of STDs (Uddin & Choudhury, 2008). According to Pathfinder International (2007, p. 16).

“The level of knowledge of respondents in each state varies significantly depending on the different RH issues being investigated. Respondents reported that the various sources of information about RH in their communities are radio, conferences, workshops, lectures, seminars, friends, Non-Governmental Organizations (NGOs), dramas, pamphlets, and television. The main sources of information remain radio and television” (Pathfinder international, 2007, p. 16).
The Ghana Demographic Health Survey (GDHS, 2008, p. 129) found that the media is seen as an effective means to disseminate family planning information. Radio is found to be the most common source of family planning messages for both women (60 percent) and men (69 percent). Approximately half of respondents (45 percent of women and 51 percent of men) saw a family planning message on the television. Newspapers and magazines are the least common source of family planning messages for both women (11 percent) and men (20 percent). However, the survey found out that roughly one in three women (32 percent) and one in four men (24 percent) were not exposed to any family planning messages. These figures represent a considerable decline in exposure to messages on family planning on radio, television, newspapers and magazines over the past five years.

In 2003, about 1 in 5 women and 1 in 9 men were not exposed to a family planning message through the radio, television, or newspaper/magazine in the few months prior to the survey. Thirteen percent of women and 9 percent of men have had no exposure to family planning messages from any media source. Exposure to family planning messages is more common among men than women and in urban than rural areas, and increases with increasing level of education and wealth quintile. Among the regions, women in the Upper East, Brong-Ahafo, Eastern, and Ashanti regions and men in the Western, Central and Greater Accra regions have by far the highest exposure to family planning messages through any media, while respondents in the Upper West and Northern regions have the lowest (GDHS, 2003, p. 114).

2.6 Methods of contraceptives

2.6.1 Traditional methods

2.6.1.1 Sexual abstinence - This means avoiding penis-in-vagina intercourse to prevent pregnancy. It is regarded as the most reliable method of contraception.
2.6.1.2 Withdrawal (coitus interruptus) – It is the pulling of penis out of the vagina when the male is about to release sperms. The reason for doing this is to prevent sperms from entering the vagina of the female. The method is considered effective. This is because many institutions are of the opinion that this method is about 90% effective provided it is used very well. However, others are of the view that about one third of couples who use this method do experience pregnancies (Medical News Today (MNT), 2014).

2.6.2 Modern Methods

2.6.2.1 Male condom: This method avoids females from becoming pregnant by stopping sperm from entering the vagina. It is normally placed over the penis before sexual intercourse begins. Male condom looks like long thin balloon that has deflated. It protects sexual partners from contracting sexually transmitted infections (STIs) (MNT, 2014).

2.6.2.2 Female condom: It is made of polyurethane. The female condom has a flexible ring at each end one secures behind the pubic bone to hold the condom in place, whereas the other ring stays outside the vagina.

2.6.2.3 Spermicides: It is placed in the vagina before sexual intercourse. It helps create a biological barrier in order to avoid pregnancy and sexually transmitted related diseases.

2.6.2.4 Contraceptive sponge: It has a depression which holds in place over the cervix. In using it, one has to use the foam. The foam has to be fixed into the vagina using an applicator. More so, it has spermicidal which is able to destroy the male sperm. The sponge also functions as a barrier which stops the sperm from reaching and then fertilizing the egg (MNT, 2014).

2.6.2.5 Diaphragm – It is placed behind women's pubic bone. It has a firm but flexible ring, which is used to press against the vaginal walls. It is a rubber dome-shaped device which is
placed over the cervix. It is a very effective contraceptive when combined with spermicide (MNT, 2014).

2.6.2.6 Cervical cap: It is fixed over the cervix which blocks sperms from entering the uterus. This is carried out through the external orifice of the uterus, known as the os. The cervical cap is a rubber barrier device which has a thimble-shaped latex. It is carefully placed in the vagina, covering the cervix. The cap stays in place by suction (MNT, 2014).

2.6.2.7 The Lea contraceptive: It is a soft pliable cup-shaped bowl with a loop. In order to prevent sperm from entering the cervix, it is placed into the vagina before intercourse. For it to be effective, it must be combined with a spermicide. It should be left in place for 8 hours (MNT, 2014).

2.6.2.8 The Pill: Combined contraceptive pills have two hormones, an estrogen and progestin. These hormones have the ability to stop the release of eggs. The pill also makes the lining of the uterus thinner. The correct use of it will bring about 3 in every 1,000 women experiencing accidental pregnancy (MNT, 2014).

2.6.2.9 Contraceptive patch: It is a transdermal patch which is applied to the skin. It produces synthetic estrogen and progestin hormones. The hormones have been shown to be as effective as the combined oral contraceptive pill. The patch is used every week for 3 consecutive weeks. It is generally placed on the lower abdomen or buttocks (MNT, 2014).

2.6.2.10 Contraceptive vaginal ring (NuvaRing): It is a flexible plastic ring that releases progestin and an estrogen over a period of three weeks. The NuvaRing is inserted into the vagina of the woman for a 3-week period. It is then removed for one week, during which the women will experience a menstrual period (MNT, 2014).
2.6.2.11 Contraceptive injection (The Shot): Depot medroxyprogesterone acetate is a progestin. It is a long acting birth control drug which has to be injected every 3 months. Its function is to stop the woman from releasing an egg (MNT, 2014).

2.6.2.12 Implants: Implano is a rod with a core of progestin. The device is inserted under the skin of the upper arm of a woman. It is effective for 3 years.

2.6.2.13 Emergency contraception: It is a contraceptive measure that is taken after sex, in order to prevent pregnancy. They include:

2.6.2.14 Emergency contraceptive pill: It is called emergency contraceptives because it can be taken up to 5 days after unprotected sex in order to prevent pregnancy. These drugs help to prevent fertilization and possible post-fertilization implantation of an embryo (MNT, 2014, p. 1-3).

2.6.2.15 Intrauterine device: It is a small, flexible t-shaped device that is placed in the uterus by a physician. It stays in place the entire time pregnancy is not desired. Depending on the type, an Intrauterine device can last from 5 to 10 years (MNT, 2014).

2.6.2.16 Male contraceptive pill - Currently such drugs are not on the market. Nevertheless, several forms are in various stages of research and development.

2.6.2.17 Tubal ligation- It is a permanent form of female sterilization. The fallopian tubes are disconnected and sealed in order to prevent fertilization.

2.6.2.18 Vasectomy – “it is a surgical procedure designed to make a man unproductive. This is where tubes through which sperm pass into the ejaculate are either cut or blocked. Although a vasectomy is sometimes reversible, the probability of an abundance of abnormal sperm is higher, resulting in lower fertility”’ (MNT 2014, p. 1-3).
2.7 Knowledge on reproductive health issues

In 2005, Knut-Ingne, et al., did a study on sexual behavior of high school students and reported that 46% of high school students have had sexual intercourse in their lives time and 6% had it before they hit the age of 13 (Eaton et al., 2010). The New York City Department of Health and Mental Hygiene (2011); and Bernstein and Hansen (2006) have reported that 87% of more than 20,000 teenage pregnancies in 15 to 19-year olds are not planned. Also, it has been found that, 11% of young women between the ages of 15 and 19 have an unmet need for contraception. As a result, there were more than half of all new HIV infections occurring in young people under age 25. It was also reported that 7 in 10 new cases of STDs occur among young people between the ages of 15-24 years in the world (WHO, 1997).

In the developing world like Africa, adolescents or young people’s risky sexual behavior has been recognized as an important health, social and demographic concern. Adolescent and the youth are vulnerable to many health problems. This is because they often have multiple sexual relationships and inconsistent use of condoms (Mulu et al., 2014). Many young men may have their first sexual experiences with prostitutes. Young females on the other hand may have their first sexual experiences with older men. These acts of both female and male adolescents increase the chance of getting Sexually Transmitted Infections (STIs) including Human Immunodeficiency Virus (HIV). The abuse of substance by a user exposes him or her to risky sexual behaviors such as having unprotected sex which can have economic, social, physical, psychological, and health problems (Mulu et al., 2014).

Eliason et al. (2014) found that a little over 90% of women of reproductive age knew at least one method of modern contraceptives. Most people knew injectable as one of the modern method of family planning but diaphragm was seen as the least known method whereas male sterilization was the least known amongst birth controls.
A study conducted on adolescent commercial sex workers reported that 32% had ever heard of AIDS, whereas only 11% had knowledge of the transmission of HIV/AIDS by unsafe sex (Uddin & Choudhury, 2008).

Another study showed that (82.8%) of students knew about at least one contraceptive method that is used to prevent unwanted pregnancy. The main known case of contraceptive methods by the students for the prevention of pregnancy was condom (47.7%) followed by abstinence (37.1%). The data showed that 77.2% of students knew common sexual transmitted infections including HIV/AIDS. Students who knew HIV/ AIDS and gonorrhea were 53.4% and 33.4% respectively (Ayalew, 2014).

It was reported that many students (71.9%) had heard about reproductive health issues from the mass media, 45.2% from school, followed by 37.9% from their peers while 21.4% from the family. One fourth of students were reported to be sexually active. Eighty nine (89) percent of sexually active students were reported to use condom during sexual intercourse. Of this, 64% males and 21% females’ in-school adolescents used condom during first sexual intercourse. Also, other birth control methods used by male students presented 59% and 30% for female students (Ayalew, 2014).

According to (Ayalew, 2014), sexual partner history of students showed that 70% of in-school adolescents have had multiple sexual partners. Female students who had negotiation skills not to have sex without condom were made up of 33% whereas 9% of students did not approve premarital sex. About 53.6% of female students disapproved of premarital sex compared to male students 46.3%. However, 72% of male students accepted premarital sex. The reasons for premarital sex disapproval by male and female students were reported as follows: to maintain their virginity until marriage (30.7%), religious value (15.9%), fear of STIs (12.6%) waiting until getting older (5.9%) and fear of unwanted pregnancy (4.5%). It is
reported that almost all the respondents in the focused group discussion agreed on girls maintaining their virginity until marriage. One male parent said “it is not culturally and religiously acceptable to have premarital sex in the community… and daughters should keep their virginity until marriage….” The data showed that students who had negotiation skills not to have sex with their partners were 58.2%. From the data, 44.8% of female and male 55.2% students had negotiation skills not to have sex with partners (Ayalew, 2014).

In Sub-Saharan Africa (SSA), including Ghana the uptake of modern family planning (FP) methods remains low. Knowledge on contraception is sometimes negated by perceptions of links between modern family planning methods and infertility, still births and congenital deformities. Among young women, the fear of side effects and personal opposition to family planning are among the commonest factors undermining uptake. A study on sexual health experiences of never-married youths in three Ghanaian towns including Tamale found that 98% of the sample of urban youth knew the existence and spread of sexually transmitted infections, especially HIV/AIDS and gonorrhea. However, only few value the need for effective contraception. This may be associated with the high incidence of unintended pregnancies, unsafe abortions, and maternal deaths (Eliason et al., 2014).

About 17% of married women were reported to use modern contraceptive methods in Ghana while about 24% used any contraceptive, including traditional contraceptives. This suggests that the use of contraceptive methods, especially the modern ones, still remains low among women in Ghana. It was estimated that, Ghana’s family planning unmet need increased from 30% in 2003 to 34% in 2008 (Eliason et al., 2014).

Ghana Demographic and Health Survey (GDHS) report of 2008 revealed that 23% of never married women in the 15–19 age category and 59% in the 20-24 age category had had sexual intercourse in the 12 months preceding the survey. Despite this high level of sexual activity,
condom use was reported to be generally low; it was reported to be at first sex and was found to be uncommon as only 25% of females and 32% of males used condom the first time they had sex. It was also reported that 74% of women aged 15-19 indulged in higher risk sex in the 12 months preceding the survey and only 24% used condom.

The survey also revealed that adolescent childbearing has potentially negative demographic and social consequences. Births to teenage mothers (15-19 ages) have been found to have the highest infant and child mortality in Ghana (GSS and MI, 1994; 1999). This may be due to possibility these young mothers being more likely to experience complications during pregnancy and delivery than older mothers, resulting in higher morbidity and mortality for both themselves and their children.

The absence of a secured home coupled with the harsh urban conditions further exacerbate their plight. To them, survival is a daily struggle in an insecure and sometimes unfriendly environment (Nnorom & Darteh, 2012). Owing to the fact that they do not have any employable skills, they consequently engage in all kinds of practices to survive. Among the decent ones was head porterage (Kayayee). Apart from the hustle and bustle they go through in carrying out these activities, they do not have any security against the future. In extreme situation, some engage in transactional sex (Nnorom & Darteh, 2012). Owing to their vulnerability, the females are always at the receiving end, being exposed to rape, sexual harassment and advances, and other violent practices perpetrated against women. In this era of HIV/ AIDS, engaging in such practices is certainly risky and makes them even more vulnerable to the pandemic (Nnorom & Darteh, 2012).

However, smaller scale studies have revealed a dismal level of awareness on other reproductive health issues like safe sex and Reproductive Tract Infection (RTI). It has been
noted that women tend to regard RTI symptoms as normal discomfort and therefore, often they do not seek treatment (Nwaloa & Anasib, 2010).

2.8 Empirical literature
According to literature, the factors that influence adolescent reproductive health are the individual, family, peer, school and community. Therefore, dealing with the youth in isolation is not helpful and that tackling at least some of these areas and influential people in young people’s lives may be necessary to sustain changes in behavior.

2.9 Individual characteristics and behaviors
Age and sex were biological factors found to be statistically significant related to the number of sexual partners. Older age was associated with risk factor as showed in a study carried out by (Meekers & Calves, 1999). Race, ethnicity, and having reached menarche at an early age were the other biological factors reported in the literature. However, these biological factors were not considered significant.

Many studies have shown that the older the individuals, the more likely they would use contraception than those who are relatively younger (Klomegah, 1999; Addai, 1999; Arowojolu & Adekunle, 2000; Katz & Nare, 2002; Hoque & Murdock, 1997; Islam & Islam, 1998; Agha, 2000).

Level of knowledge among older students was considered better than younger students (FFPAM, 2002). In South Africa, Jama (2006) found that older youth and men were much more likely to use condoms for first time for at least 3 years since first sexual intercourse. Amy & Loeber’s (2007) study showed that girls who have experienced early menarche are more than twice likely to date, engage in sexual relations, and become pregnant.
In Kenya, Mensch & Lloyd (1998) also found that girls acquired critical knowledge and skills in schools even though schools can be institutions that are conventional which reinforce gender inequality thereby subjecting girls to sexual harassment. The sexual harassment was caused by both teachers and students.

2.10 Family and household factors

Parent-to-child or spousal communication on reproductive health (RH) issues is still generally challenging in most countries. For instance, Men in Reproductive Age (MRA) in Katsina explained, “…sex is a difficult topic to be discussed by parents and children.” Respondents noted a particular stigma associated with free and open discussions of Family Planning (FP) among the population in Sokoto. A female youth in Sokoto explained that parents are traditionally shy to discuss issues relating to child spacing, especially with their eldest daughters (Pathfinder International, 2007). Respondents described patterns of communication among parents and their children, typically from mother to daughter and father to son. Factors that encouraged communication included higher education, greater awareness of RH issues, love and understanding of partners, leadership skills of fathers, and the reality of increased incidence of STIs, including HIV/AIDS (Pathfinder International, 2007).

Four characteristics of the family and the household were identified during this literature to be important and are considered as factors that are significantly associated with adolescent reproductive health behavior. These factors were also found to be associated with the place of residence, the parents, the type of marriage, the structure of the family, the stability of the family, and those living away from home. The families and households were classified under place of residence because many of the studies focused on adolescents who were not married and living at home. A number of studies examined whether adolescents living in urban
centres were more likely to be sexually experienced than those living in rural areas (Gupta, 2000; Laguna, 2001; Choe & Lin, 2001). Majority of these studies looked at current place of residence, whereas other studies also examined the childhood place of residence. Findings of these studies showed that for both current and childhood residence, living in an urban area was statistically significant which is associated with the likelihood that an adolescent is experienced in sexual issues, even though conclusions showed that childhood residence is more stronger (Gupta, 2000; Laguna, 2001; Choe & Lin, 2001). Studies found that adolescents who live in urban centres are more experienced in sexual activities as compared to those living in rural areas (Meekers, 1994; Raymundo & Laguna, 2001; Cruz, Laguna, & Raymundo, 2001; Isarabhakdi, 1999). Regarding childhood residence, some studies identified found that adolescents who lived in an urban area during childhood were significantly more likely to be sexually experienced (Gupta, 2000; Makinwa-Adbuysoye, 1992; Choe & Lin, 2001). The reasons could be that adolescents’ in the urban areas were more exposed to early sexual life than their counterparts in the rural areas because of mass media. Living in a family with both parents implies the availability of support, supervision, and behavioral control in the lives of adolescents (Podhisita et al., 2001). Sixteen (16) studies examined the association between family structure and sexual experience among adolescents. Three (3) of these studies found that when adolescents lived with both parents, they were less likely to engage in sex than those who lived with only one parent or someone other than their biological parents (Kiragu & Zabin, 1993; Rwenge, 2000; Raymundo & Laguna, 2001). Two studies were undertaken to find out whether the biological father present in the home was related to later sexual activity. The studies found that, among females, the presence of a father at home during childhood and adolescence was significantly associated with a later sexual activity (Murray et al., 1998; Zelaya et al., 2000). A study in Costa Rica found that adolescents who had lived with their mothers only were more probable to have been exposed
to stressful home situation. Such adolescents were more likely to be living under economic constraints. Moreover, they found that living with a stepfather was found to be the greatest predictor for early sexual intercourse among females. In Thailand, Podhisita et al. (2000) found that being raised with only a parent more than double the likelihood of pre-marital sex among females, and being raised with neither parent more than double the prevalence of premarital sex among males, and more than quadruple it for females.

Living away from home was also proven to be an important factor in adolescent sexual behavior. A study found that when adolescents live away from home at an early age, they were more likely to have had sex compared with those who stayed at home (Laguna, 2001). Choe et al. (2001) said that adolescents in countries like China, the Province of Taiwan, Philippines, and Thailand who lived away from home before the age of 15 years greatly increased their chance of engaging in premarital sex. This may be due to the fact that adolescents’ do not get the necessary guidance to stay away from extra sex. Studies showed that adolescents whose parents are in less stable relationships were more likely to engage in premarital sex than those whose parents are in more stable relationships (Cruz, Laguna & Raymundo, 2001; Kiragu & Zabin, 1993). For instance in Kenya, Kiragu & Zabin (1993) indicated that female adolescents whose parents often engage in argument/conflict are two times more likely to be sexually experienced than those who come from more conflict-free environments.

2.11 Community factors

2.11.1 Peer and partner

It is a general knowledge that peers influence the sexual behaviors of teenagers. A common facet of the importance of peer networks is the adolescent’s perception of whether his/her close friends are more sexually experienced (Laguna, 2001; Isarabhakdi, 1999). Other studies (Magnani et al., 2001; Magnani et al., 2002; Karim et al., 2000) examined the relationships
that exist between the perception of peers/friends who have had sex and the number of sexual partners. Some of these studies showed that such relationship is significant (Magnani et al., 2001; Magnani et al., 2002; Karim et al., 2000). In the Republic of Cameroon for example, females who talked about sexual life more often with their peers were more than twice as likely to have two or more casual sex partners (Meekers & Calves, 1999). In Ghana, multiple sexual partners is the result of females who perceived that their friends were more sexually experienced (Karim et al., 2000). Furthermore, a study found that adolescents, who discuss sexual issues with their friends, are more likely to have multiple sexual partners (Meekers & Calves, 1999)

2.11.2 Schooling and education

Schooling has been widely shown to be a protective factor for sexual debut in the U.S. and Western European countries. The only factor that was found as a significant risk factor by a number of studies was early school leaving. For example, adolescents who dropped out of school at an early stage of their lives were found to be significantly more likely to have engaged in premarital sex than those who remained in school. And this effect was stronger among females than males (Laguna, 2001). In Kenya, Mensch & Lloyd (1998) found that despite the fact that girls have acquired analytical knowledge and skills in school, schools may be old-fashioned institutions that promote gender inequality and subject girls to all kinds of sexual harassment by both teachers and students.

2.11.3 Mass media

In the developing countries, literature on risk and protective factors showed that there was a significant relationship between regular movie watching and sexual experience (Laguna, 2001; Raymundo & Laguna, 2001; Gupta, 2000). Other studies examined the relationship between watching pornographic materials and sexual experience (Abraham & Kumar, 1999; Laguna, 2001; Raymundo & Laguna, 2001). Findings from all of these studies show that
regular television watching is not a significant factor as compared with regular movie watching and watching x-rated materials for adolescents. The studies found that regular movie watching by adolescents, particularly male adolescents were more likely to have had premarital sex (Laguna, 2001; Cruz, Laguna & Raymundo, 2001). With respect to watching of pornography, three studies found that adolescents were more likely to have had sex than those who had not watched such pornographic materials. This was particularly seen among males who watched these pornographic materials (Abraham & Kumar, 1999; Laguna, 2001; Raymundo & Laguna, 2001).

In conclusion, respondents reported that the various sources of information about RH in their communities were radio, conferences, workshops, lectures, seminars, friends, non-governmental organizations (NGOs), dramas, pamphlets, and television. The main sources of information remain radio and television (Pathfinder international, 2007).

2.11.4 Social/Cultural factors

Studies have shown that even though adolescent boys may have knowledge on condom use and the protection it offers against unwanted pregnancies and STIs including HIV/AIDS, male norms favoring sexual experience without condoms often prevent them from using condoms correctly and consistently. Furthermore, prevalent societal norms limit young women's access to and use of contraceptives (Adaji et al., 2010).

Some positive community norms have also been noted. In some states, such as Kano, both community members and health facility managers commented that more youth were not only accepting and using contraceptives, but were also more open to discussing RH issues due to increased awareness. One respondent mentioned that a cultural celebration of virginity was one way of delaying the onset of sexual relations and preventing the transmission of sexually transmitted diseases (Adaji et al., 2010).
2.12 Access to information on reproductive health

The study examines adolescents’ ability to access information on reproductive health which makes the following literature relevant to the study. Information from lower- and middle-income countries on sexual reproductive health (SRH) knowledge, attitudes and behaviors of younger adolescents is scant. Surveys which collected data from adolescents, including very young and older adolescents revealed an awareness of issues such as consequences of unprotected sex but also a lack of accurate SRH knowledge. Very young adolescents often rely on equally uninformed peers or older siblings and radio, television and other media for information (Albert, Brown, & Flannigan, 2003; Bankole et al., 2007; Dixon-Mueller et al., 2007; WHO, 2010). For example, a belief that one cannot conceive after first sex may result in unsound sexual decisions (Boonstra, 2007). Around 11% of girls and 6% of boys aged 15–19 report having sex before turning 15 (UNICEF, 2012).

In Africa, majority of adolescents still do not have access to information and education on sexuality, reproduction and sexual and reproductive health. Providing adolescents with access to information, education and services is thus the main challenge for future programmes (Gupta & Gupta 2008). In sub-Saharan Africa, 3.2 million young people are living with HIV and three young women are infected for every young man (UNAIDS, 2012). Moreover, 75% of all new cases of HIV in this Sub-Saharan Africa are found among young women and girls between ages 15–24 years (Global Health Council, 2007). Young people have special sexual and reproductive health needs because of their relatively higher risk of being exposed to inaccurate or incomplete information, which leads them to acquiring HIV and other sexually transmitted infections (STIs), and experiencing unintended pregnancies and maternal complications (Rani & Lule, 2004). In Nigeria, the level of knowledge of respondents in each state varies significantly depending on the different RH issues being
investigated. It has been reported that the various sources of information about RH in their communities are radio, conferences, workshops, lectures, seminars, friends, NGOs, dramas, pamphlets, and television. The main sources of information remain radio and television (Pathfinder international, 2007).

In Ghana, GDHS (2008) showed that information was collected on respondents’ exposure to print and broadcast media, both of which are effective in reaching the population with important health messages such as those on reproductive health and HIV/AIDS. In the survey, 76% of women and 88% of men listen to the radio at least once a week, and a high proportion of women and men watched television. For example, 54% of women and 61% of men watch television at least once a week. Twice as many women 17% as men 8% have no access to the media. Media exposure is higher among younger women (15-19) than older women (45-49). In GDHS (2003), individuals aged 15-19 of both sexes report the lowest exposure to family planning messages in the media. Non exposure to all three media sources among young people aged 15-19 is 39% for males and 44% for females.

Despite improvements in reproductive healthcare in Ghana, young women face a range of social, cultural and economic barriers to accessing it. Among young women aged 15-19, 78% have faced at least one problem accessing reproductive healthcare, including not having money for services and insecurity of supply. Other hindrances identified had to do with lack of a female health service provider or a companion with whom to attend the health facility. In addition, sexual stigma – conditioned by traditional Ghanaian norms of propriety – appears to be the most dominant factor constraining wider access to reproductive health services. Indeed, in a study by the Alliance for Reproductive Health Rights in 2011 adolescents reported that the health facility environment was not youth-friendly, as they had to share the waiting area with adults seeking family planning assistance (Action aid, 2015, p. 5-6).
2.13 Perspectives of adolescents on reproductive health information

Studies have been conducted on adolescents’ perceptions in relation to reproductive health especially their knowledge on contraceptives and its usage which relates to the following literature. In Zambia, societal norms and values disapprove of premarital sex and masturbation, a view also shared by the respondents. But at the same time, boys and girls reported feelings of arousal, which could be difficult to control. This seemed to cause dilemmas for the respondents (Warenius, 2007).

On one hand, young people held strict moralistic values and, on the other, they grappled with their growing sexual urges. Both boys and girls considered premarital sex, contraceptive use, masturbation and abortion as sinful and immoral (Warenius, 2007).

A study confirmed that unprotected sex and withdrawal are very common, though young women at Kpobiman were more likely to insist on condom use than their counterparts at Bulpela. Some youths said that “skin to skin” sex is more satisfying and that condoms detract from sexual fulfillment” (Action Aid, 2012, p. 7).

Other reasons given by young women in both communities include young women’s fear of losing their boyfriends if they insist too strongly on condoms, and one young woman said she “wishes to trap the boy she loves” into marrying her. Young men in both communities cited “not having a condom to hand when the opportunity arises.” In Bulpela, it was noted that a young woman may sometimes opt to get pregnant by a partner of her choice in order to thwart an arranged marriage (Action Aid, 2012, p. 7).

In some cases, young women interviewed accepted unprotected sex in transactional relationships if the immediate economic return was attractive. Yet, it was also reported as common for a young woman to have multiple sexual partners. Indeed, in Bulpela discussions, young women who stick to a single partner were derided as being ‘old fashioned.’ While some said multiple partners were important for economic reasons, others simply found it more exciting (Action Aid, 2012, p. 7).
Owing to stigma, young men interviewed said they prefer to purchase their condoms from anonymous supermarkets and from familiar street-food vendors rather than from their local chemists who they described as more likely to ask searching questions and who sometimes refuse to sell to the youngest adolescents. The young men did this despite their belief that the chemists’ products are of a higher quality and less likely to have expired, chemist services are better regulated and that the advice available from chemists would be more professional (Action Aid, 2012, p. 7).

2.14 Conceptual framework

Based on the literature, a framework was developed for this study. The framework assumes that adolescent reproductive health behavior depends on individual and community factors. The individual adolescent may have control over these factors. Examples of individual factors include: age, sex, physical development, psycho-social development, education etc. However, in this thesis it was education that was considered.

Community factors are the external influence of the community on the adolescent which an adolescent finds himself or herself. The adolescent has little or in most cases, no control over these community factors. The community factors include but not limited to: peer influence, school influence, religious influences and employment/job opportunities. In the current study, only religion was looked at.

Besides the factors that affect accessing of reproductive health information (contraceptive), there were some problems that prevented access to this information if adolescents decide to. Some of these problems relate to culture and religion and perceived consequences of contraceptives. Some also relate to stigmatization in trying to seek such information.

It is assumed that the effects of challenges associated with accessing reproductive services on the adolescent’s reproductive health behavior may lead to the prevention of risks associated with adolescent sex. Such reproductive health outcomes include: live birth(s), fatal loss-abortion, morbidity, STDs/HIV, mortality etc.
Summary

The literature reviewed reveals certain key concepts in the study such as health, reproductive health, adolescent, knowledge. Evidence shows that adolescents get access to information on reproductive health mainly through the mass media.

It has been observed from existing literature that there are two methods of contraceptives, namely traditional and modern methods. The traditional method comprises abstinence and withdrawal. The modern methods on the other hand include male and female condoms, diaphragm, pills, injectable etc.

It has also been proven from the literature that various factors influence adolescent behavior regarding the use or otherwise of reproductive health information. Factors such as the family,
peers, school, the community, etc. greatly determine the adolescent’s reproductive health outcome. These factors are external to him or her but have coercive forces which exert pressure on him or her as stated by the Durkheim (1938).

Due to the complex nature of adolescent behavior in relation to their reproductive health issues, two theories have been used to ensure that understanding of the behavior of adolescents could be found. These theories are the theories of planned behavior and social learning theory.

Reproductive health behavior is primarily dependent on the level of knowledge. It was generally found that knowledge was not a significant factor related to condom use. However, substantial gaps are observed in young people’s functional knowledge about sexual and reproductive health. Studies also showed that the most strong knowledge factor was having knowledge about where to buy condoms. For instance, a study was able to find that adolescents who knew where to buy condoms were more likely to use them than those who did not (Meekers & Calves, 1999). In addition, few studies in Ghana have looked at adolescent knowledge, especially about where to buy condoms (Population and Housing Census, 2010; Ghana Demographic Health Survey, 2008). Also, information gathered from Planned Parenthood Association of Ghana (PPAG) showed that study on level of knowledge in reproductive practice among senior high school girls may not have been done in Ghana (Alan Guttmacher Institute, 2004; 2006). Hence, the need to study senior high School girls’ level of knowledge in reproductive health practices. The study therefore sought to answer the following research questions in filling the gaps identified above: What is the respondents’ knowledge on contraceptive and pregnancy prevention? What is respondents’ level of knowledge on HIV/AIDS? What are the challenges adolescents face in accessing knowledge on contraceptives?
CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the research assumptions and strategy. It discusses the data collection and analysis methods used for the study. The first section presents the study area and the philosophical paradigm of the research whilst the second section looks at the methods used.

3.2 Study Sites

3.2.1 Kinbu Senior High School

Kinbu Senior High School, formerly called Kinbu Secondary Technical School was established in 1874. The school was set up for mulattoes who found it difficult to mix with the whites and felt more comfortable with indigenous people. During the colonial era, it was called Government Boys’ Senior School (Rowe-Road's School and later became Kinbu Middle Boys’ School). With the introduction of the Educational Reform Programmes in 1976, the Kinbu Middle Boys’ School was made one of the first ten experimental junior secondary schools in Ghana. The school is situated at a very busy business center in Accra, next to Ghana Education Service, Tudu. Currently, the school offers courses in Science, Technical Science, Metalwork, and Woodwork, Building and Construction, Visual Arts, Home economics, General Arts and Business. The girls’ population of forms 1 and 2 was 322. The study could not gather data from the form 3 students because at the time of gathering the data, they were writing final examinations. The Staff population was 78.
3.2.2 Apostle Christo Asafo Senior High School

Apostle Christo Asafo Senior High School is a private school located at Awoshie, Accra. The school offers courses in Science, Technical, Business and General Arts. The students’ population was 450 with 200 boys and also 18 teachers.

The choice of the two schools was on the basis of convenience. These are the schools that granted the researcher’s request for assistance to collect data after letters of introduction were submitted to quite a number of schools. These schools were also chosen due to the fact that they have the characteristics the study was looking for; they are public and private schools. Efforts were made to gather data from other schools but proved futile. The refusal of other schools to allow the research collect from their schools was on the basis of religious beliefs and the issue of confidentiality especially among the private schools.

3.3 Research Methodology

Sarantakos (1998) defined research methodology as a model, which entails theoretical principles as well as a framework that provides guidelines about how research is done in the context of a particular paradigm. A paradigm is “a set of beliefs, values and techniques which is shared by members of a scientific community, and which serves as a guide or map, dictating the kinds of problems social scientists should address and the types of explanations that are acceptable to them” (Kuhn, 1970, p. 175). The study adopted realism as its research paradigm. This was because realism can be used for both quantitative and qualitative approaches by collecting data that best answer the research questions. It also focuses on current views and removes invalid explanations. More so, it focuses on cause and effect. That is, the confirmed association is the more valid explanation at the time.
3.4 Research Methods

Research methods are the tools of data generation and analysis (Sarantakos, 1998, p. 34). The research methods of this study were made up of questionnaires, interviews, case study and survey.

3.5 Philosophical/Research Paradigm

The study employed mixed methods. According to Aliaga & Gunderson (2002) quantitative research explains a phenomenon by collecting quantitative (numerical) data that are analyzed using mathematically based methods such as statistics. The strength of quantitative research is that it is objective and easily generalizable. On the other hand, Creswell (1998) defined qualitative research as the process of understanding a social or human phenomenon, based on methodological research traditions. The aim was to understand the subject under study (Mayring 2002). The use of mixed method was to reduce the deficiencies that are bound to be caused by the use of a single research approach. Thus, according to Onwuegbuzie and Johnson (2006), the mixed methods help to bridge the schism between them. Under the quantitative approach, a survey was used whereas a case study was used under the qualitative approach.

According to (Crowe et al., 2011) a case study is a research approach that is used to generate an in-depth, multi-faceted understanding of a complex issue in its real-life context. The central tenet in case study is the need to explore an event or phenomenon in depth and in its natural context. This method can be used to explain, describe or explore events or phenomena in the everyday contexts in which they occur (Yin, 2009). In this study, the method has helped to understand and explain causal links and pathways in adolescents’ knowledge on reproductive health. Again, the case study approach has helped to capture information on more explanatory questions ‘how’, ‘what’ and ‘why’.
The survey method was chosen because, it made it possible and easier to collect data from the relatively large number of respondents (that is 285). In the process, numerous questions were asked about the subjects, giving extensive flexibility in data analysis and a broad range of data was collected.

3.6 Instruments of Data Collection

The survey was made up of interviews through self-administered questionnaires while the case study approach adopted in-depth (key informant) interviews of selected girls in Forms 1 and 2. While the survey questionnaire aimed at gathering enough information on the subject matter from a sizeable number of adolescent girls of the schools under study, the key informant interviews (a case study approach) was used to gather detailed information on the research problem and subsequently sought clarifications on emerging themes of the survey.

3.7 Study Design

According to (Creswell, 2009), research design includes all the plans and the procedures for doing research. These plans and procedures span across the decisions from broad assumptions to detailed methods of data collection and analysis.

The design for this study was cross sectional which has been one of the most common and well-known study designs. In this type of research, a subset of the population was selected, and from these individuals, data was collected to help answer research questions of interest (Olsen & Marie, 2004). It is called cross-sectional because the information is gathered at a point in time or over a short period. It was suitable for this study because the outcome can be used for the purposes of public health planning. Cross sectional designs are usually conducted to estimate the prevalence of the outcome of interest for a given population. Other reasons for choosing cross-sectional over other designs included the following:
It is relatively inexpensive and takes up little time to conduct; can estimate prevalence of outcome of interest because the sample is usually taken from the whole population; many outcomes and risk factors can be assessed; and there is no loss of time to follow-up (Levin, 2008).

3.8 Study Population

A population is the aggregate of all the individuals who have certain characteristics a researcher is looking for. The study population constituted all girls in SHS1 and SHS2 of the two selected schools. The questionnaires were not administered to the SHS3 because they were writing their final examination so the researcher was not granted access to interview them.

3.9 Sampling Frame

A sample is a part drawn from a larger whole. The sampling frame defines a set of elements from which a researcher can select a sample of the target population (Michael, 2004). The sample size used for this study was drawn from a pool of girls from a list provided by the schools.

3.10 Sampling Method

The study employed a multi-stage sampling design. Multistage sampling refers to sampling plans where the sampling is carried out in stages using smaller sampling units at each stage. This sampling method was employed because the students within the enumeration area were geographically dispersed. As a result, the multi-staged sampling ensured the representation of the divergent socio-economic groupings in the schools.

In the first instance, the schools were conveniently selected from list of Senior High Schools in Accra. Only mixed schools (with both boys and girls) were included in the categories sampled. These schools were placed in two categories (that is private and public) and through
purposive sampling, two schools were selected. In the second stage, “the universe of the units” selected in the instance consisted of the actual units of analysis for the study (Kumekpor, 2002, p. 150), were the school girls in the selected schools.

3.11 Sample size

The total sample for this study was 285 senior high school girls who were selected from 2 two different senior high schools representing 183 selected from Kinbu Senior High School because they had the largest population and 102 respondents from Apostle Christo Asafo Senior High School.

Calculation of the Sample Size from the two schools

The sample size of the schools was obtained by dividing the stratum for each form by the population multiplying the results by the required sample size. Therefore, the formula is: \[ \text{stratum/population} \times \text{sample for the study} \]. From Kinbu Senior High School there were 422 students, forms 1 and 2 were 179 and 243 respectively. Therefore the formula for the Form 1 students was: \[ \frac{179}{422} \times 183 = 78 \] and Form 2 is \[ \frac{243}{422} \times 183 = 105 \].

<table>
<thead>
<tr>
<th>Type of School &amp; Form Level</th>
<th>Number of Students for each Form</th>
<th>Proportionally Allocated Sample of the Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kinbu SHS- Form 1</td>
<td>179</td>
<td>78</td>
</tr>
<tr>
<td>Form 2</td>
<td>243</td>
<td>105</td>
</tr>
<tr>
<td>Christo Asafo SHS- Form 1</td>
<td>70</td>
<td>55</td>
</tr>
<tr>
<td>Form 2</td>
<td>60</td>
<td>47</td>
</tr>
<tr>
<td>Total</td>
<td>522</td>
<td>285</td>
</tr>
</tbody>
</table>

Total sample for the key informant interviews was 16 for both schools and they were selected from both forms 1 and 2. Roscoe (1975) also proposed the following rule of thumb for determining the sample size of a population. He indicated that a sample size larger than 30
and less than 500 is appropriate for most studies; especially studies that have to do with human behavior. In addition, the sample size was chosen taking into consideration practical realities such as time, access to samples, and financial costs (Wilson, et al., 2007). Hence, a sample size of 285 was sufficient for this study.

3.12 Sampling Technique

In each school, a simple random sampling technique was used to select the students. In the first instance, all the names of the classes were written on different pieces of papers, folded and placed in a basket, after a thorough shake, the required numbers of students were picked from the list. Then a purposive sampling was used to select the key informants. Sixteen (16) key informants were selected. Out of this, 8 were sampled from Kinbu Senior High Schools and 8 from Apostles Christo Asafo Senior High School.

3.13 Data Collection

Data was collected from both primary and secondary sources. The primary data was collected through the use of questionnaire, and an in-depth interview guide with the case study approach of key informant interview.

Secondary data was obtained from published and unpublished documents, articles, and books. These data was collected from sources such as Ghana Demographic and Health Surveys (GDHS), existing reports and other relevant materials. The sources also included internet sources and other published literature, academic journals and resources were also utilized. Other library materials relevant to the study were also consulted.

3.14 Data Analysis

The quantitative data was analyzed using the Statistical Package for Social Scientists (SPSS). Parametric and non-parametric statistics were used and the outcome presented in simple
Parametric techniques focus on specific parameters of the population, usually the mean and variance. They address the first and second objective of the study.

One might note that typical health science research often violates one, if not all of these parametric assumptions. Non-parametric statistics are tests for statistical inference, which do not make strict assumptions about the population from which the data have been sampled, and may be used for studies with small sample sizes, nominal or ordinal level data, and non-normally distributed variables. Non-parametric techniques are widely applicable to research in the health sciences (Tomkins, 2006). They address the third objective of the study. The triangulation method was also adopted. The method involves the use of more than one form of data collection to test study assumptions within a unified research plan. By combining these methods, the idea was to partly overcome the deficiencies that the employment of one method could produce.

The recordings made during the in-depth interviews were transcribed and analyzed thereafter. The transcribed data was reviewed line by line in details. Thus, one piece of data was taken and compared with all the other forms of data to identify both similarities and differences. This helped the researcher to conceptualize all the possible relations in the various pieces of the data. In the process, concepts were seen to become apparent and codes were assigned to such segments of the data.
CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction
The study sought to find out the level of knowledge on reproductive health among senior high school girls. In this chapter, the researcher presented systematically how the data on the four hypotheses were analysed. In addition, the chapter presents how the data were analysed, interpreted and presented. The study made use of the American Psychological Association (APA) method in the data presentation and interpretation.

4.2 Hypothesis 3
Hypothesis 3 states that, there is a significant difference on the level of knowledge on contraceptives and pregnancy prevention between senior high school students in forms 1 and 2. Just as the previous hypothesis, this hypothesis was analysed using the independent t-test. This was because there were dependent and independent variables. These variables were the classes of the respondents (as independent variable) and their knowledge on contraceptives (as dependent variable). The results of the independent t-test and the group statistics are shown in table 4.3 below.

Table 4.1: Group statistics and results of independent t-test on class and knowledge on contraceptives

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form One</td>
<td>133</td>
<td>2.56</td>
<td>1.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Form Two</td>
<td>152</td>
<td>4.03</td>
<td>.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>285</td>
<td>6.59</td>
<td>1.69</td>
<td>-14.19</td>
<td>225.77</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Researcher’s field work (2015)
Looking at respondents on class \((N = 285)\), a statistically significant difference was found between the means of both classes, Form 1 \((M = 2.56, SD = 1.01)\) and Form 2 \((M = 4.03, SD = .68)\), \(t (225.77) = -14.19, p = .000\). Therefore, we fail to accept the null hypothesis that there is no significant difference between Form 1 and Form 2 students on knowledge of contraceptives.

### 4.3 Hypothesis 4

The hypothesis states that religion has a significant effect on the level of knowledge on contraceptives and pregnancy prevention. The mean differences among groups were tested with the One Way Analysis of Variance (ANOVA) using the dependent and independent variables. These variables were the religion of the respondents (as independent variable) and knowledge of respondents on contraceptives (as dependent variable). The independent variable (religion) has four categories which include non-religious, Catholics, Protestants, Pentecostals/charismatic and others. Results of group statistics are shown in table 4.4 below.

**Table 4.2: Group statistics on religious affiliation and knowledge on contraceptives**

<table>
<thead>
<tr>
<th>Religious affiliation</th>
<th>Number</th>
<th>Mean</th>
<th>Standard. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>None religious</td>
<td>9</td>
<td>1.02</td>
<td>.03</td>
</tr>
<tr>
<td>Catholic</td>
<td>23</td>
<td>1.61</td>
<td>.61</td>
</tr>
<tr>
<td>Protestants</td>
<td>37</td>
<td>2.37</td>
<td>.62</td>
</tr>
<tr>
<td>Pentecostals/Charismatics</td>
<td>172</td>
<td>3.90</td>
<td>.72</td>
</tr>
<tr>
<td>Other</td>
<td>44</td>
<td>3.37</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>285</strong></td>
<td><strong>3.34</strong></td>
<td><strong>1.12</strong></td>
</tr>
</tbody>
</table>

Source: Researcher’s field work (2015)

The ANOVA results are also shown in table 4.5 below.
Table 4.3: ANOVA results on the effects of religious affiliation on knowledge on contraceptives

<table>
<thead>
<tr>
<th>Source: Researcher’s field work (2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Sum of Squares</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Between Groups</td>
</tr>
<tr>
<td>Within groups</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

An analysis of variance shows that the effect of religious affiliation was significant, $F(4, 280) = 94.48, p = .000$.

Table 4.4: Results of a multiple comparison using the LSD

<table>
<thead>
<tr>
<th>Source: Researcher’s field work (2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Catholics</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Protestants</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Pentecostals/Char</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

* The mean difference is significant at the 0.05 level.

*ns. Mean difference not significant at 0.05 level.
The Post-hoc analyses using LSD indicated that knowledge on contraceptives was lower for non-religious participants than Catholics (p=.05), protestants (p=.000), Pentecostals/charismatics (p=.000) and others (p=.000). Similarly, knowledge on contraceptives was lower among Catholics than protestants (p=.000), Pentecostals/charismatics (p=.000) and others (.000). In the same way, knowledge on contraceptives was lower among protestants than Pentecostals/charismatics (p=.000) and others (p=.000). Again, knowledge on contraceptives was higher among Pentecostals/charismatics than others (p=.000).

4.4 Hypothesis 1

This hypothesis states that public SHS students have acquired a higher knowledge on HIV prevention than private SHS students. The hypothesis was analysed with the independent \(t\)-test because there were two variables that are independent of each other. These variables were the school and knowledge of respondents on HIV prevention. The results of the independent \(t\)-test and the group statistics are shown in table 4.1 below.

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>(t)</th>
<th>df</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>183</td>
<td>3.25</td>
<td>1.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>102</td>
<td>3.47</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>285</td>
<td>7.72</td>
<td>1.06</td>
<td>-1.78</td>
<td>382.92</td>
<td>.08</td>
</tr>
</tbody>
</table>

Source: Researcher’s field work (2015)

Among the respondents of public and private schools \((N = 285)\), there was statistically no significant difference between students of both schools, students of public \((M = 3.25, SD = 1.33)\) and students of private \((M = 3.47, SD = .73)\), \(t(382.93) = -1.78, p = .08\). Therefore, the
null hypothesis that there is no significant difference between public and private school students on knowledge of HIV prevention was accepted.

4.5 Hypothesis 2
Hypothesis 2 states that, public SHS students have acquired a higher knowledge on contraceptives and pregnancy than private SHS students. The hypothesis was analysed with the independent t-test because there were two variables which were independent of each other. These variables were the school of respondents and knowledge of respondents on contraceptives. The results of the independent t-test and the group statistics are shown in table 4.2 below.

Table 4.6: Group statistics and results of independent t-test on school and knowledge on contraceptives

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>183</td>
<td>3.27</td>
<td>1.25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>102</td>
<td>3.48</td>
<td>.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>285</td>
<td>6.75</td>
<td>2.09</td>
<td>-1.70</td>
<td>272.81</td>
<td>.09</td>
</tr>
</tbody>
</table>

Source: Researcher’s field work (2015)

Comparing respondents of public and private schools (N = 285), there was a statistically no significant difference between students of both schools, students of public (M = 3.27, SD = 1.25) and students of private (M = 3.48, SD = .84), t (272.82) = -1.70, p = .09. Therefore, the null hypothesis that states there is no significant difference between public and private school students on knowledge of contraceptives in general was accepted.
4.6 Research Question

The research question sought to find out the challenges in accessing reproductive health information by senior high school students.

Several issues were raised by the respondents to be the hindrances to adolescents in accessing information on reproductive health. These hindrances identified by this study were multi-sectoral which range from personal, social to religious factors and beyond.

4.7 Research question: What are the challenges adolescent girls faces in accessing information on contraceptives?

When the key informants were interviewed, it was realised that several hindrances prevent adolescent girls from accessing information on contraceptives. These challenges include the following.

4.7.1 Issues with partners

It was found that, either the explicit or the implicit behavior of partners of adolescent girls mostly prevented them from accessing information on contraceptives. It was reported that in most cases partners, vehemently refuse the use of contraceptives. One of the respondents put it this way:

Sir, it is not because we don't want to use them, mostly the problem is with my boy-friend. He has never agreed to the use of any contraceptive. Not even pills. For him, once I think I love him, I must trust him on issues of disease; I must not worry of us conceiving a child. He will always have a host of reasons to stop us from using them. It was the same issue with my first boyfriend.
One girl said, “I don’t even think about them because I can’t mention their name in the presence of my boyfriend”. Just as when I begin to think that the respondents are trying to confuse knowledge of contraceptives with their usage, another respondent clarified this point by drawing the link between the issue with boyfriends and contraceptive usage and the knowledge of contraceptives which the current research is about. Thus:

“my boyfriend for instance will never like to use condom and he will be angry if he gets to know I have taken a pill. The first time I demanded for an explanation, he gave an explanation but I did not understand so we exchanged words. Since then he will never want you to even talk about it. It has made me to develop a bad attitude towards them. I don’t find new information about contraceptive because I thick such information will never be useful.”

However, some partners give answers for not liking contraceptives.

“The use of condom for instance they say “don’t give you the natural taste of having sex. Other partners think the use of contraceptive for whatever purpose does not show respect to them (male partner) and it also means you don’t love them. Someone for instance will not understand why you should think he may have an STD or become pregnant. I should not think that he can’t take care of the pregnancy and the child subsequently”.

One other respondent said that her partner has “occasionally threaten with separation” whenever the issue with “contraceptives especially condoms was raised”.

Because of these and several other comments which were given, respondents agreed that sometimes they “don’t have any motivation” trying to seek or access any form of information on contraceptives.
4.27.2 Unreliable source of information

The respondents accepted that there are many sources to access information on contraceptives. Some of the sources reported include peers, siblings, parents, school counsellors, pastors, religious leaders, etc. However, in some cases the respondents reported that they resort to their peers:

...resort to peers. There are several statements that they gave which support this. Example, a young girl said “it is my friend who introduced me to sex. She introduced me into a relationship with another male friend of hers. During that time, she use to settle our disputes and brief me on all matters relating to sex, pregnancy and contraceptives and others. Although, I have break up with that guy, I have still taken that girl as my ‘godmother. I rely on her for all information relating to sex. Because, belief me, she is a person I can trust. I can therefore confide in her all my secrets. Beside he, who else? No, I can’t risk

So the main sources of information to them are peers. And the reason is that it is their friends that they can trust. However, most of the time, the peers are people who are mostly lacking knowledge just like most adolescents. Therefore, relying on them can be dangerous. A respondent affirmed that, “I have been relying on my friends, though I know sometimes they don’t know. But I have no other option. These are not issues I can discuss with parents, a teacher or the elderly.” Another respondent said “issues of contraceptives, especially pregnancy matters are very delicate. The disadvantage is that we are left with no other option than to discuss with our friends who are sometimes even more ignorant and have nothing good for us.” She continued by sharing an experience she had with a

friend who nearly died 3 years ago as a result of a pregnancy she tried to abort. This friend of mine was taught about the menstrual cycle by another friend. This girl was experiencing sex for the first time. The method failed, she got pregnant and went back to that same friend. The friend gave her some medicine that she took and only God knows what happened to her, had it not be the mercies of God she would have died
Although some also admitted seeking professional knowledge is good, they were also of the view that, professional counsellors are insufficiently available. In a statement, a respondent said “experts to teach are difficult to get”

4.7.3 Fear of stigmatization and shyness

Most of the adolescents don’t access information on contraceptives because they think it will mean to the society “they are engaging in sex”. According to one lady,

“if you start to ask the elderly, example, your father, your mother, your teacher, etc... exactly they may be right to think you have started seeing a man. And you will not know which other people they will discuss it with. S/he may spread the information, and people will start pointing fingers at you. So to save my image, I never discuss contraceptive issues with others especially the elderly.”

Another respondent said this,

issue of sex should be confidential. Contraceptives go with sex. The moment you show interest in them, by implication you show interest in sex. And one knows it not a good thing especially when you are a newcomer. People might feel that you are bad girl

According to one respondent, this fear of being stigmatised

“makes me fell shy and bad when am going to buy condom because the druggist might know me. Even if am watching Television in the house with my parent or any other elderly and they are discussing such issues, I take leave because of shyness.”

Some other statements that were made and which support this include the following; “if they get to know, they will spank you”; another said, “they will say you are a bad girl”; yet another said, “the eye of people will be on you”.

4.7.4 School curricular do not include teaching of contraceptives use

Another problem identified was that issues of reproductive health in general are not included in the main Senior High School curricula. According to the respondents, “they are mostly
included as part of other extracurricular activities of the school but not on the main subjects taught”. Another one added: “they are only included in small sections of some subjects like integrated science”. These extra activities according to them do not have wider coverage and most students will be showing interest in examinable subjects and not such activities. One student therefore suggested that, “at least they can include it in the Form 1 subjects so that we learn it one year and write exams on it.”

4.7.5 Lack/inadequate sex education from parents

Another problem the study identified in accessing information on contraceptives was lack of or inadequate information from parents. One student said:

“some parents don’t have any knowledge about it at all. As a result they are mostly not ready to listen to you. This is one of the reasons I always fall on some friends that I can trust and confide with them secrets of that nature”.

However some respondents think it is normally a deliberate attempt made by their parents to withhold such information from them. Because, according to one respondent, their parents have passed this stage and are likely to have enough information on adolescents reproductive health. Her words are captured as follows.

“I am sure my parents know all the stuffs I need to know about contraceptives, because they are educated. But they have never tried educating me. From the way I see them, they think I am too young to have access to such information. So they think I shouldn’t know. May be they think that will spoil m”.

4.7.6 Religion and Culture

Religion was another factor that was identified to prevent people from seeking information on contraceptives. There are some religions or denominations that put a straightforward ban on or show hatred for contraceptives. One respondents said:

“I see it as bad because my pastor said God has made us natural, contraceptives should not be used to block women from having children. In
that way we are trying to challenge the natural processes created by God. One must note that, it is fundamentally against the will of God. It is a sin. God said, we should not kill, we should not pour innocent blood. Why should you prevent the life of another with contraceptives? It is bad and that is it’’

Another girl who claims to be catholic said, I don’t need such information for anything. “In my church, we don’t accept any form of contraceptives”.

In other religions, their beliefs and concepts do not put an absolute ban on contraceptives. However, their preaching’s and teachings implicitly make members felt bad to access such information. According to the respondents:

“contraceptives are meant to give protection during sexual affairs. However church preaching prevent me from having sex. So I don’t see any need I should learn about them. I will only have sex when I marry, in that case, I will not need contraceptives for anything.”

4.7.7 Fear of being addicted

According to some of the respondents, the use contraceptives/condoms may cause addiction. These respondents fear that when a condom for instance is used continuously, the user develops a taste for it. This taste they fear can make a person become addicted. This was a statement of one of the respondents:

“It makes a people to become addicted to them so that when even they marry, they may not want to have natural sex with their partners but will continue to like to use condoms since they will still think of using condoms. This can cause serious marriage problems like marriage breakups.”

According to another respondent, “it is therefore better not to learn about them (referring to contraceptives) than to learn them and be tempted to use them”
4.8 Chapter Summary

In this chapter the researcher systematically explained the data analysis process and presented the results using APA format. The results from the hypotheses indicated that there was no significant difference in the level of knowledge of contraceptives between public and private senior high school students and there is no significant difference in the level of knowledge on HIV prevention among private and public senior high school students. However, there was a significant difference in the level of knowledge on contraceptives among forms one and form two senior high school students.

The results further indicate that religious denominations significantly affect the level of knowledge on contraceptives among senior high school students; others displayed a higher level of knowledge followed by Pentecostals/charismatic, Protestants, Catholics and then non-religious people. The chapter has also presented the results pertaining to the research question.
CHAPTER FIVE

DISCUSSION

5.1 Introduction

The main objective of the study was to examine the general level of knowledge on reproductive health practices among senior high school girls. The chapter outlines the discussion of the findings presented in chapter four.

5.2 Knowledge among form 1 and 2 students

From the analysis, one can say that there is a significant difference between the Form 1 and 2 students in the two schools. The t-test results shows that the effect of the class level with respect to level of knowledge on contraceptives is significant $t (225.77) = -14.19, p = .000$. This implies that class/form is a factor that affects adolescents’ level of knowledge on contraceptives. This could be due to the fact that most students are taught on issues of reproductive health at the senior high schools and which the Form 2 students may have learnt it since they have spent one year already compared to Form 1 girls. Also, the fact that most students in form 2 are older than those in form 1 was likely to be an indication that the students in form 2 were more exposed to reproductive health issues than those in Form 1. The form 2 students might have benefited from public talks and seminars focusing on contraceptives and HIV Aids prevention.

This finding was supported by literature. For example, a study conducted shows that the older an adolescent becomes, the more he/she is exposed to issues relating to reproduction health (FFPAM, 2002). Specifically, it has been found that knowledge on reproductive health issues among older students was better than younger students. This is because the older they become, the more they become exposed to sexual and reproductive health (FFPAM, 2002).
Studies have also shown that older adolescents are much more likely to know and use contraception than those who are younger (Klomegah, 1999; Addai, 1999; Kane et al., 1993; Gueye et al., 2001; Arowojolu & Adekunle, 2000; Katz & Nare, 2002; Hoque & Murdock, 1997; Islam & Islam, 1998; Agha, 2000). Similarly, in the Gambia, Kane et al. (1993) found that young people aged 22-24 years were more than 16 times more likely to have ever heard or used contraception compared to those who were younger (14-21 years).

Apart from the fact that reproductive health may have given form 2 students an exposure, the interaction with their peers might have helped to increase their knowledge on contraceptives and HIV/AIDS prevention. This finding has confirmed similar observations made by two studies which found that when adolescents discuss sexual issues with their friends, they are likely to increase their knowledge on how to prevent sexually related problems (Magnani et al., 2002; Meekers s (Calves, 1999).

Also, because the form 2 students have been in the school for at least one year they may have acclimatised themselves with the school environment, thereby feeling free to seek information on contraceptives from teachers and guidance and counselling unit.

5.3 Religion and knowledge of contraceptives

The hypothesis was posited that there is a significant difference on the level of knowledge on contraceptives and pregnancy prevention among various religious denominations. The ANOVA results showed that the effect of religion on the level of knowledge of contraceptives and pregnancy prevention is significant $F (4, 280) = 94.48$, $p = 0.000$. This implies that the type of religious denomination of the respondents is a factor that affects his/her level of knowledge on contraceptives.

The independent variable (religious denomination) was grouped into four levels labelled ‘Other’, ‘Pentecostals/Charismatics’, ‘Protestants’, ‘Catholics’ and ‘Non-religious’
respondents. A multiple comparison showed that the level of knowledge on contraceptives was significant between and among all these groups.

This means that knowledge on contraceptives was lower for non-religious participants than Catholics \( (p=.05) \), protestants \( (p=.000) \), Pentecostals/charismatics \( (p=.000) \) and others \( (p=.000) \). Similarly, knowledge on contraceptives was lower among Catholics than protestants \( (p=.000) \), Pentecostals/charismatics \( (p=.000) \) and others \( (p=.000) \). In the same way, knowledge on contraceptives was lower among protestants than Pentecostals/charismatics \( (p=.000) \) and others \( (p=.000) \). Again, knowledge on contraceptives was higher among Pentecostals/charismatics than others \( (p=.000) \).

The fact that religion plays an influential role when it comes to adolescents’ knowledge on reproductive health can be seen from the work of Ayelaw, (2014). In his study, a male parent who is a religious leader, revealed to him why he will not condone teaching young adolescents how to use contraceptives. In short, the parent thinks it is not acceptable culturally and religiously to have premarital sex in any community created by God. Besides, adolescent daughters should keep their virginity till when they get married.

It is this belief in ‘virginity’ and ‘sin’ by some religious organizations that make them preach against premarital sex, place restrictions and sanctions on adolescents who are caught in it and rule the minds of adolescents in all matters that are considered sexual. This is because such religious organizations belief in only abstinence and will not want to hear anything about the other methods. To them, teaching adolescents’ about contraceptives is a way of showing them how to engage in this sinful practice called ‘premarital sex’. During the interview sessions, a girl confirmed this thus:

“Formally, I was attending catholic and I was made to understand through constant preaching by our local ‘father’ that even listening to advertisement about condom and other methods of preventing pregnancy corrupts the mind.

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Now, I attend Methodist church. In this new church of mine, at times, training and seminar sections are organised for young people on how to prevent HIV/AIDS and teenage pregnancy. The training mainly focused on abstinence’’

The study by Warenius (2007) similarly shows that some young religious people (both boys and girls) held strict moralistic values about all matters relating to premarital sex. For instance, they considered acts such as sex before marriage, all issues relating to contraceptive use, and other acts such as masturbation and abortion as sinful and immoral to be engaged in by people of their age.

The actual point of the matter is that most religious groups believe in chastity. They therefore, think it is irrelevant to have any form of knowledge about sex (including knowledge on contraceptives and pregnancy prevention). Though they do not disagree with teaching adolescents about HIV/ADS prevention, it seems that in their efforts to prevent adolescents from seeking contraceptives and other sexual knowledge is causing the spread of HIV/AIDS and other STDS

For instance, the analysis from the study shows that Catholic students in the schools do not have much knowledge on contraceptives. The reason according to one respondent is that “the Catholic Church teaches against the use of contraceptives”. She continued “the church considers that the use of contraceptive as sinful, this is because it violates the natural law of God” which according to her is “Gods plan built into the human race”. The purpose of the natural law is explained as follows:

‘‘The purpose of the natural law with sex affairs is mainly for procreation. Sexual intercourse according to the natural law is not for pleasure but rather it is additional blessing from God, meant to strengthen the bond of intimacy, respect, and love between husband and wife. According to the Catholic Church the law is not only the law of the Bible but also of the natural law because it declares the will of God.’’
Catholics further believe that the observance of this “natural law will enable the human race to attain an eternal life”. The church believes that every act of sexual intercourse does not necessarily lead to new life. This is because God has designed things in such a way that births are already naturally spaced.

This finding is almost the same as what the literature says. From the literature, reasons for a frown on contraceptives by Catholics are that it is a sin. According to Srikanthan and Reid (2008), Catholics, do not allow contraceptives because they belief that:

“the primary purpose of marriage and sexual intercourse is procreation. Every act of intercourse must remain open to conception. Contraception destroys any potential to produce new life and violates the principal purpose of marriage. This contraception ban is against unnatural means of contraception, which include chemical and barrier methods. These forms of family planning may be used for medical, economic, and social indications.” (p. 130)

The reason is that all forms of “new life” are treated as a person from the moment of conception. All forms of abortion and emergency contraception are prohibited (p.130)” because they interfere with this new form of life.

The attitude of Catholics towards contraceptives and the reasons given are not entirely different from those of the Protestants. The literal interpretation of the Bible has resulted in disapproval of contraception among conservative Protestants, such as Evangelical and Fundamentalist Protestants (Srikanthan and Reid, 2008, p. 131)”. According to conservative Protestants “the use of contraception would violate God’s command to be fruitful and multiply (p. 131)””. However, the mainstream conservative Protestants “believe that marriages should be procreative (p. 131)”, yet they don’t put “prohibitions against using contraception (p. 131)”

It is therefore confirmed in this study that, Protestants were seen to have shown much interest in contraception than Catholics. The mean for Catholics was 1.6 and that of Protestants being
2.4. This difference was found to be significant ($p=0.000$) meaning the results have confirmed the multi-national study conducted by Srikanthan and Reid (2008). That same study has stated that conservative Muslims have a more liberal view about contraceptives than even Protestants. According to them “contraception is permissible and encouraged or permissible in Islam yet it is disapproved (p. 133)” by individual Muslims.

The finding of this study which is absolutely different from that of the literature is that most studies indicate that non-religious people almost always show the greatest interest in contraceptives compared to people who do belong to various forms of religious denominations. In this study, the direct opposite was observed. The reasons would have been that some religious organizations occasionally have youth organizations that may organize educative activities including activities on reproductive health. This makes people who belong to such religious organizations have access to productive health issues (including contraceptives) than their counterparts who do not belong to any religious organization.

There are several other reasons why most lay faithful in the Catholic Church beliefs frown on contraceptives. For instance, an informant indicated that she has been told by one Catholic priest during a conversion section that “the use of contraceptives open room for unfaithfulness and generally lowers moral standards, especially among adolescents”. She continued, knowledge and good attitude toward the use of contraceptives “may corrupt his/her mind and make the adolescent throw chastity to the dogs since they may want to experiment before marriage. In otherwise, it makes it easy for young ones to break that law”.

Again, other reasons that make some religious bodies frown on the use of contraceptives is the argument that “contraceptives reduce females to mere instrument that males can use to satisfy their sex drive”. An informant indicated that her pastor ones said during preaching that “the use of condom, pills or anything that prevents pregnancy makes women not
experience the care and affection they deserve from their partners”. However, as the multinational study by Srikanthan and Reid (2008) mentioned during the interview sessions, an informant from the Catholic Church explained as follows:

“The only allowed methods of birth spacing by the church is abstinence and the rhythm method. Any other forms of birth control are not permitted. According to the church, new life is treated as a person immediately a woman conceives. Therefore, abortions and emergency contraception are not permitted with the exception of measures taken to save a mother as a result of the death of the foetus”.

The Protestants and Charismatics however, revealed that although “sex is mainly for procreation”, they believe that “couples could engage in family planning in order to ensure responsible parenthood and healthy families”. This is not a reason granting adolescents’ permission for the use of contraceptives as the exception is for parents who want for example to space child birth. Notwithstanding this exception, members in these churches and to some extent seem a bit comfortable than Catholics with regard to seeking knowledge on contraceptives. This is because some informants see contraceptives as a personal conscience which spiritual couples pray to God to bless about the growth of their families. This could be the reason for their high level of knowledge on contraceptives compared to Roman Catholic Church.

5.4 School and knowledge of contraceptives and HIV/AIDS

School has been regarded as one of the institutions where issues of adolescents’ reproductive health can be taught. The findings of this thesis indicate that there was no significant difference on the level of knowledge on HIV/AIDS between public and private schools. The t-test results showed that the effect of type of school (public and private) on the level of knowledge on contraceptives is not significant $t (382.92) = -1.78, p=.08$. This implies that the type of school (public or private) is not a factor which affects adolescents’ level of knowledge on HIV/AIDS. In the same way, with regard to hypothesis 2 there was no
significant difference on the level of knowledge on contraceptives and pregnancy prevention between public and private schools. The *t*-test results showed that the effect of the type of school (public and private) regarding the level of knowledge on contraceptives is not significant, \( t(272.81) = -1.70, p=.09 \). This implies that the type of school (public or private) is not a factor that influences adolescent’s level of knowledge on contraceptives.

Some of the reasons for the above finding could be that, educational interventions in both private and public schools have significantly increased students’ knowledge on contraceptives and pregnancy prevention. The second reason could be that both schools give contraceptives similar attention in teaching students reproductive health issues. They also have teachers who counsel students on issues of contraceptives. The third reason for this insignificant difference is that they all have access to the mass media. This finding supports what the literature says. For example, a study by Pathfinder International (2007) shows that the main sources of information to knowing about reproductive health issues are radio and TV (mass media). Similarly, in a study by Rahman et al., (2011), majority of students reported that they had heard about sexual and reproductive health issues including HIV/AIDS through the mass media, such as in magazines, television and on the internet.

Clearly, the mass media is a source for creating awareness on contraceptives rather than the type of school attended. Therefore, it can be said that students of the various schools gained knowledge on contraceptives from the media (Pathfinder International, 2007; Rahman et al, 2011). It may also be argued that since most students obtain reproductive health information from the mass media, the impact of the type of school, and for that matter the teacher, may be minimal when it comes to adolescents’ knowledge on HIV/AIDS.

The fourth reason could be that Students’ level of knowledge about HIV/AIDS, contraceptives and pregnancy prevention between public and private schools was
significantly associated with the family as well as adolescents attitudes toward participating in health information campaigns. For instance, the literature shows that, living in a family with both parents implies the availability of support, supervision, and behavioral control in the lives of adolescents (Podhisita et al., 2001). Thus, the parents or guardians, play a crucial role with respect to adolescents’ level of knowledge on HIV/AIDS and contraceptives. This means where parents are around and willing, they become a major source of knowledge on contraceptive issues. Therefore, whether in private or public schools, adolescents will have knowledge on contraceptives.

The fifth reason is that there may be vast reading materials on HIV/AIDS available to both types of schools which might contribute to significant difference in the level of knowledge on reproductive health between the two schools. This is because both schools may have an equal chance of getting the necessary reading materials (journals, magazines and books) which provide them with the necessary information on HIV/AIDS. In this regard the literature has shown that the various sources of information about RH in their communities are radio, conferences, workshops, lectures, seminars, friends, non-governmental organizations (NGOs), dramas, pamphlets, and television (Pathfinder International (2007).

5.5 Challenges in accessing information on contraceptives

This study is not the first study to find challenges regarding accessing information on contraceptives, neither is it a new thing in the literature. Though some of the problems that were identified seem to be new because this study did not come across such problems in the literature. However, in general, there were challenges that the literature has already identified to have a negative effect on accessing contraceptive information (Jones, Darroch & Henshaw, 2002; Pathfinder International, 2007; Murray et al., 1998; Magnani et al., 2001; Park et al., 2002; Magnani et al., 2002; Kiragu & Zabin, 1993; Karim et al., 2000; Selvan et al., 2001;
Laguna, 2001; Isarabhakdi, 1999; Podhisita, 2001). There are situations when the challenges in the literature are in consistency with the current findings. At the same time, there are occasions when the current findings are not in agreement with what is in the literature.

For instance, in 2006 when (Wood and Jawkers, 2006) tried to look for the barriers to using contraceptives in South Africa, they identified factors similar to the challenges identified in this thesis. According to them the barriers include pressure from male partners and family members, inaccurate notions, fears of negative effects, stigma, etc. Wood and Jawker’s idea of pressure from male partners is similar to the complaints cited given by the respondents of the current research. These two authors explained thus:

“In negotiating their sexuality and contraceptive use, girls reported experiencing pressure and coercion from several sources. Young women’s sexual partners reportedly also often wanted to prove their fertility by fathering a child, and pregnancy was associated with proving love and commitment. Rather than directly raising this issue, some male partners were reported by girls to use manipulative tactics to try to get them to stop contraceptive use. Some boyfriends reportedly demanded that contraception be stopped, at times threatening to use, or using, physical violence to enforce this, or tearing up the clinic card and throwing away the pills” (p. 111).

In this study, a respondent said with much anxiety “Someone for instance will not understand why you should think he may have an STD or try to prevent becoming pregnant” by way of using a condom or any other form of contraceptive.

What is different in this research is that respondents have been able to establish that because of fierce resistance from partners, they do not see any reason to spend time seeking information about something they will never use.

Studies by (Isarabhakdi, 1999; Podhisita, 2001, and Karim et al., 2000) and a host of others have identified how peers influence the sexuality of adolescents. What is missing in those studies is that they did not look at how peers influence others to use or not to use
contraceptives. Such studies only concentrated on how adolescents imagine the sexuality of peers and the subsequent pressure that these imagined behaviors put on the imaginers.

However, the ability of peers influence on most activities relating to adolescents’ sexuality cannot be undermined. And this issue was explicitly expressed by respondents in this study. Most of the respondents indicate that they rely on only peers for all they need to know about contraceptives. Since these peers mostly lack the same knowledge which their friends are seeking for, they end up providing themselves with unreliable or inaccurate information.

What seems to cause an over reliance of adolescents on peers for information is liked to another problem that was identified both in the literature and during the interview of this thesis. This is the lack or inadequate sex education from parents. Five of the respondents have said:

“we don’t have any knowledge about it at all. This is one of the reasons I always fall on some friends that I can trust and confide with them secrets of that nature”. However some of the respondents are sure “parents know all the stuffs about contraceptives. Because they are educated. But they have never tried educating them on it”. One respondent said “from the way I see them, they think I am too young to know or to have access to such information. So they think I shouldn’t know. May be they think that will spoil me”.

The literature indicates that because of pressure from parents, adolescents are not able to take decisions on contraceptives and pregnancy prevention issues on their own. (Wood and Jawkers, 2006). Instead, the parents force their will on them and in most cases the parents do not allow their children access contraceptives “because of the expectation that the girls will get pregnant at an early age” (Wood and Jawkers, 2006, p. 111). The thinking is that using contraceptives will not ensure 100% delay in pregnancy or STDs prevention. According to the authors:

“many girls described the importance of proving fertility – described as having a strong snake in the womb – in order to attain status and acceptance as a woman, a view reportedly held by significant others in their lives. In some
families, encouragement to have a child very young was overt, sometimes motivated by grandmothers who wanted a baby” (p. 111).

In the literature, stigma was almost the major challenge to accessing information on contraceptives. In the case of Wood and Jawkers, the “girls unanimously” (p. 111) said it has been and will continue to be a barrier. However, unlike the current study, the only source of stigma mention was from nurses. The adolescents explained that:

“that the nurses would not provide contraception until they had asked ‘funny questions’ about whether they had boyfriends, why they had sex so young, whether they had told their mothers and why they wore mini-skirts, had lectured them on being too young for sex and told them to stop going around with men. Those who refused to answer these questions were scolded, and made to feel ashamed and afraid” (p. 111).

The nurses asking such questions do not think that their attitude will prevent adolescents from seeking their services. Though similar to the results of this study’s focus was not on stigma from nurses. This study found that the stigma is from the whole society, including friends, enemies, old and young, relatives and non-relatives.

Some adolescent also fear the consequences of using contraceptives. The interviews created a scenario that any time the adolescents have a reason that prevents them from using contraceptives, they begin to ‘withdraw’ from learning about them. In this study, the fears expressed were about addiction. According to the respondents contraceptives are addictive. Their reason is the perception that the ‘taste’ of using some contraceptives in sex is different from when they are not used. They accepted for instance that “the taste of using condom” is not any better, “but if you continue to use it regularly, you may become accustomed” with such ‘taste’ and one day if you don’t use it especially when you are married, you will not feel fine. Others also express fears that other “contraceptives like pills and injection may facilitate the development of stretch marks on the body”.
Furthermore, another challenge the literature identified which prevent the adolescents from either accessing or using contraceptives include menstrual irregularities and infertility (Wood & Jawkers, 2006); the perception that users of contraceptives (especially women) have low risk of becoming pregnant and the fear that should they show interest in contraceptives and their parents get to know, it will signal that they have begun engaging in sex (Jones, Darroch & Henshaw, 2002).

Srikanthan and Reid (2008) in their multicultural/multi-religious research and a study by (Addai, 1999) indicated that religion influences the perception on contraceptives and subsequent use. Srikanthan & Reid (2008) underlined that Catholics and conservatives frown on contraceptives but liberal Protestants do not. Judaism frowns on some of the contraceptives and allows others especially those “that least interferes with the natural sex act, the sexual pleasure of both partners, and the full mobility and natural course of sperm (p. 132)”.

In this study, both the results of the ANOVA and the interviews have confirmed that one’s religious denomination affects their behavior towards contraceptives. The ANOVA result shows $p$ value to be .000. The LSD multiple analysis further indicates that the difference between each of the groups in terms of how religion affects accessing contraceptive is significant. However, contrary to the findings of Srikanthan and Reid (2008), in this thesis non-religious people recorded the lowest mean while the respondents labeled ‘Other’ recorded the highest level of positive perception and probability of subsequently using contraceptives.

During the interviews session respondents confirmed this religious influence. According to an informant, “a mere thought of that Sunday preaching alone will not let me ask what this or that contraceptive is used for”. She continued; “contraceptives are meant to give protection
in sex. However, church preaching prevents me from having sex”. Trying to explain to her that learning/knowing about them is a different thing altogether from using them, she quickly added. “I don’t see any need I should learn about them. I will only have sex when I marry, in that case, I will not need contraceptives for anything”.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Summary

The study examined the level of knowledge among senior high school students in Greater Accra. A specific focus was placed on the classes/levels of the respondents, types of school as well as the religious denomination. The study also looked at the challenges affecting access to reproductive health information by the two selected senior high school students.

The study set to achieve three objectives. The first objective was to explore the respondents’ knowledge on HIV/AIDS and its prevention. This objective focused on the type of school of respondents (public or private) and the knowledge on HIV/AIDS. Two hypotheses were formulated for this objective. The hypotheses were; (a) public SHS students have acquired a higher knowledge on HIV prevention than private SHS students and (b) public SHS students have acquired higher knowledge on contraceptives and pregnancy prevention than private SHS students. The key findings revealed that the type of school attended has no significant effect on the level of knowledge on HIV/AIDS prevention and that the type of school attended has no significant effect on the level of knowledge on contraceptives among Senior High School students.

The second objective sought to compare the level of knowledge on contraceptives and pregnancy prevention between students in forms 1 and 2. Using the independent t-test, the findings confirmed the claims of the hypothesis that there is a significant difference in the level of knowledge on contraceptives and pregnancy prevention between senior high school students in forms 1 and 2. The means of the two groups indicated that students in form 2 demonstrated a high level of knowledge on contraceptives than their counterparts in form 1.
Under the second hypothesis, the issue of religion and knowledge on contraceptives and pregnancy prevention was examined. The ANOVA test was used to test the mean differences. The analysis confirmed the hypothesis which states that religion has a significant effect on the level of knowledge on contraceptives and pregnancy prevention. The means of the groups indicate that respondents labelled ‘Pentecostals/Charismatics’ have a higher knowledge on contraceptives and HIV/AIDS prevention followed by those labelled Other’ followed by ‘Protestants’ and then ‘Catholics’. The ‘Non-religious’ people demonstrated the least knowledge. The LSD multiple comparison indicated that these mean differences were significant across all the groups.

The final objective focused on the challenges of accessing knowledge on contraceptives. An in-depth interview guide was used to explore the level of knowledge on contraceptives by the students. The interview identified many issues. Sixty percent (60) of respondents were of the view that higher levels of knowledge on contraceptives have more benefits than problems. The respondents have accepted that such knowledge will prevent them from potential dangers. However, many situations, they are prevented from or personally refused to acquire such knowledge due to problems like the following:

1. Disagreements by partners
2. Problems relating to religion and culture. Some religions or denominations put a straightforward ban on hatred for contraceptives. Others do not ban them outright but constantly ‘preach’ against them making the adolescents develop a very bad attitude towards them.
3. Lack of comfortability
4. Shyness

Besides, other findings that emerged which need to be highlighted include the following:
The fear of risk associated with the use of contraceptives. Some of the risks mentioned include fear of developing bodily stretch mark and fear of becoming addicted. Fear of being stigmatized, frowned at and scolded by society.

6.2 Conclusions

In general, respondents have demonstrated a higher knowledge on contraceptives, HIV/AIDS and pregnancy prevention. This is because during the interview sessions, the key informants accepted the importance of such knowledge in life and how it can prevent them from some serious challenges associated with reproductive health. Despite the high level of knowledge demonstrated, some groups among the students demonstrated a level of knowledge that is below average. These groups included the groups’ labelled ‘non-religious people’ and Catholics. Again, some factors were identified which significantly influence the level of knowledge on contraceptives and HIV/AIDS. For example, it was identified that the class of respondents significantly predicts the students’ knowledge on contraceptives and pregnancy prevention. The analysis revealed that students in form 2 in the selected schools have a higher knowledge than their counterparts in Form 1.

Again, it was found that one’s religious denomination is a factor that can influence his/her knowledge on contraceptives and pregnancy prevention. The study found that, some religious denominations see premarital sex as a ‘sin’. These religious bodies think that allowing members to learn contraceptives in the first instance is a way of showing how to commit this ‘sin’ called premarital sex. Therefore, apart from refusing to organise programmes on contraceptive, some religious bodies frequently preach against them. This preaching which lingers in the mind of members of such religious groupings prevents them from accessing knowledge on contraceptives. Catholics were among those who demonstrated least knowledge on contraceptives and pregnancy prevention.
However, some other factors were identified to be irrelevant in predicting knowledge on contraceptive, HIV/AIDS and pregnancy prevention. For instance, the type of school a person attends has no significant relationship on the level of knowledge on HIV, contraceptives and pregnancy prevention.

6.3 Recommendations

After a careful analysis of the literature and the results of the study, the researcher proposed two groups of recommendations relating to implications for policy making and directions for future research.

6.3.1 Implications for Policy Making

It is recommended that the following issues should be considered for policy making by the government, NGOs and other bodies that have interest in adolescents’ reproductive health issues.

1. Parents should be ready and freely discuss issues with adolescent sexuality with their adolescent girls. It is by so doing that they can let their children know the dangers and the possible ways of preventing them.

2. Teachers should not frown on adolescent sexuality or adolescents who show interest in knowing about contraceptives because they enhance reproductive health. By so doing the adolescents will not be afraid or feel shy to approach them for information about contraceptives and related reproductive health issues.

3. Unlike in South Africa or what goes on in other countries, doctors, nurses and other health workers should not humiliate adolescents who show interest in contraceptives. This behavior is against the code of ethics which guide them in their working environments.
4. Besides the extracurricular activities that are organized in schools on reproductive health, the concept can be introduced as a subject that is compulsory for all students. It can also be introduced as sections in subjects like social studies, integrated science.

5. NGOs and other institution should assist by organising seminars and other activities to complement the efforts that are being made to improve information on reproductive health.

6.5 Directions for future research

Some recommendations are provided with regard to the direction of future research:

1. In terms of socio-demographic features, there are many other factors that could possibly influence adolescent girls on their quest to know about reproductive health issues. Research should be conducted on the effect of these demographics.

2. It is known that the issue of contraceptives is not the only reproductive health issue. It is recommended that future researchers should look at how adolescents perceive these reproductive health issues and how their personal, social, cultural and other characteristics encourage or discourage adolescents to know about these reproductive health issues.

3. Future research should also be geared towards finding out if knowledge of contraceptives can result in actual usage of contraceptives by these adolescent girls or not.

4. In South Africa, it has been found that the activities of nurses are a major factor that discourages adolescents from accessing contraceptives. This phenomenon might be happening in Ghana. But there is no research to that effect. Research should be conducted to determine know if it is the case with Ghanaian nurses so that government can take measures to prevent this unprofessional behavio
REFERENCES

Abraham, L., & Kumar, A. (1999). Sexual Experiences and their Correlates among College Students in Mumbai City, India. *In International Family Planning Perspectives, 25*(3), 139-146 & 152.

Action Aid (2012). Young women life choices and livelihoods in poor urban Ghana. Summary of key findings from Greater Accra and Tamale.


Jakab, Z. (2011). *Presentation: Designing the road to better health and well-being in Europe* at the 14th European Health Forum Gastein, Bad Hofgastein, Austria.

Jama, P. N. (2006). *Gender and Age Differences in Condom Use Patterns among Youth in the Eastern Cape, South Africa: A Descriptive and Analytic Study*. University of the Western Cape.


Ringheim, K., & Gribble, J. (2010). *Improving the reproductive health of South-Sahara Africa’s Youth: A route to achieve the millennium Development Goals*. Washington, D.C., Population Reference Bureau [PRB], 40


World Health Organization (2010). The sexual and reproductive health of young adolescents in developing countries: Reviewing the evidence, identifying research gaps, and moving the agenda. Geneva. WHO.


APPENDICES

Department of public Administration and Health Services Management
University of Ghana Business School

QUESTIONNAIRE FOR SENIOR HIGH SCHOOL STUDENTS

Dear respondent,

I am currently carrying out a study for the purpose of writing a thesis as a requirement for the award of MPhil in Health Services Management at University of Ghana Business School. The topic for the study is level of knowledge in reproductive health practices among senior high school girls. You have been selected to participate in this study due to the importance of your information. The information you supply will remain strictly confidential. Please feel free and answer all the questions truthfully. Thank you very much.

Part 1
Tick the appropriate answer in the items below

Age          a. 10-12   b. 13-15   c. 16-18   d. 19-21
Religion     a. No religion b. Catholic c. Protestant d. Pentecostal/Charismatic e. Other (please specify………………………)
Form         a. 1   b. 2   c. 3
School       a. Public   b. Private

Part 2
Please tick the appropriate response in the table below where:
1 stands for strongly disagree, 2 stands for disagree, 3 stands for neutral, 4 stands for agree and 5 stands for strongly agree

| Section A: Level of knowledge on contraceptives and pregnancy prevention |
|---------------------------------------------------------------|---|---|---|---|---|
| 1. I have ever heard of contraceptives/condoms in my life time |   |   |   |   |   |
| 2. I have ever been taught or instructed on how it works       |   |   |   |   |   |
| 3. Women can have operation to avoid pregnancy                 |   |   |   |   |   |
| 4. Women can take pill to avoid becoming pregnant              |   |   |   |   |   |
| 5. Women can have a loop or coil place in them by a doctor or nurse |   |   |   |   |   |
6. Women can have an injection by health provider to stops them from becoming pregnant

7. Women can have several small rods placed in them by health professional which can prevent pregnancy

8. Men can put a rubber sheath on their penis before sexual intercourse

9. Women can place a thin flexible disk in their vagina before intercourse

10. Women can place a jelly or cream in their vagina before intercourse

11. Every month a women is sexually active, she can prevent pregnancy by not having intercourse on the day of the month she is mostly likely to get pregnant.

12. Men can be careful and pull out before climax

13. Women can take special pill any time within 5 days to prevent pregnancy

14. I intend to wait until I get married to have sexual intercourse for the first time.

15. Young adolescents should be taught on how to use contraceptives

16. I will use a method to delay or avoid pregnancy

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**Section B: Knowledge on HIV/AIDS**

17. I have ever heard of HIV or a disease called AIDS

18. Can people protect themselves from HIV/AIDS infection by having one uninfected faithful sex partner?

19. People can reduce their chances of getting AIDS VIRUS by using contraceptive any time they have sex.

20. People can reduce their chances of getting AIDS VIRUS by not having sexual intercourse.

21. People can get AIDS VIRUS because of witchcraft or other supernatural means.

22. It is possible for a healthy-looking person to have AIDS.

23. People can protect themselves from HIV/AIDS infection by using a condom correctly every time they have sex.

24. A person can get HIV/AIDS from a mosquito bite

25. People can get infected with HIV/AIDS by sharing a toothbrush with someone who is infected
<p>| | |</p>
<table>
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<tr>
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<tbody>
<tr>
<td>26</td>
<td>A person get HIV/AIDS by sharing needles with an infected person</td>
</tr>
<tr>
<td>27</td>
<td>One can get HIV/AIDS by sharing food with someone who is infected.</td>
</tr>
<tr>
<td>28</td>
<td>A pregnant woman infected with HIV/AIDS can give the virus to her unborn child during pregnancy or delivery.</td>
</tr>
<tr>
<td>29</td>
<td>A woman infected with HIV/AIDS can give the virus to her baby during breastfeeding</td>
</tr>
<tr>
<td>30</td>
<td>I will want it to remain a secret If a member of my family gets infected with HIV/AIDS</td>
</tr>
<tr>
<td>31</td>
<td>If my relative became sick with HIV/AIDS, I will be willing to care for him/her my own household.</td>
</tr>
<tr>
<td>32</td>
<td>A teacher infected with HIV/AIDS should be allowed to continue teaching.</td>
</tr>
<tr>
<td>33</td>
<td>I will buy fresh vegetables from a shopkeeper who was infected HIV/AIDS</td>
</tr>
</tbody>
</table>
Dear respondent,

I am currently carrying out a study for the purpose of writing a thesis as a requirement for the award of MPhil in Health Services Management at University of Ghana Business School. The topic for the study is level of knowledge in reproductive health practices among senior high school girls. You have been selected to participate in this study due to the importance of your information. The information you supply will remain strictly confidential. Please feel free and answer all the questions truthfully. Thank you very much.

(In-depth interview guide): Challenges in accessing knowledge on contraceptives

1. Which person do you usually discuss reproductive issues with? Why?
2. Do you feel shy discussing reproductive health issues with others? Why?
3. Are there situations where your partner disagree discussing a contraceptive or other methods that can help prevent pregnancy? If yes, how often and what reasons do they give?
4. Do you fell shy to discuss contraceptives issues with a druggist or clinician? Why?
5. Do you feel comfortable discussing a contraceptive issues with others? If not, why?
6. What is your perception on contraceptive?
7. Do you discuss issues of contraceptives with your parents? If not, why
8. What other reasons can prevent you from discussing a contraceptives with others?
9. In your opinion, what are the challenges in accessing knowledge on contraceptive?
10. Do you know where to buy contraceptives from? List them
11. Where do you get most of your contraceptive information from? List them