SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA

SEXUAL BEHAVIOUR AMONG ADOLESCENTS IN SENIOR HIGH SCHOOLS WITHIN THE TAMALE METROPOLIS, NORTHERN REGION OF GHANA

BY

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THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF PUBLIC HEALTH DEGREE.

JULY, 2015

DECLARATION

I, Rosemary Ivy Emefa Attibu, declare that with the exception of specified quotations and ideas which have been fully acknowledged, this work is the result of my own original research. The dissertation has neither in whole nor in part been presented elsewhere for any other degree.

I bear sole responsibility for any shortcomings.

…… ……..……...

ROSEMARY IVY EMEFA ATTIBU **DATE**

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PROF. AUGUSTINE K. ANKOMAH **DATE**

(SUPERVISOR)

DEDICATION

This work is dedicated to Dr. Ken Sagoe (former CEO, Tamale Teaching Hospital) who has been a constant source of support, inspiration and encouragement through my days as a Community Health Nurse up to Health Services Administrator. His constant advice and motivation I believe has made me who I am today.

ACKNOWLEDGEMENT

I wish to express my sincerest appreciation to Prof. Augustine Kwabena Ankomah the academic supervisor for his time, guidance and support during the preparation and completion of this dissertation.

My heartfelt gratitude goes to Dr. Abubaker Manu for the role he played most especially during the questionnaire preparation.

I very much appreciate the cooperation of the Heads of the Senior High Schools and the teachers who selflessly supported me during my data collection. I am also thankful to all adolescents and young people who took time off their academic work to complete the questionnaire presented.

I am also profoundly grateful to Mr. Kwesi Addai (PhD student, UGBS), Mr. Elvis Edu Asante (Maranata University College) and Mr. David S. Ahadzi (Senior Health Planner, Tamale Teaching Hospital) who offered their valuable pieces of advice as they read through this work. My gratitude also goes to the following persons; Mr. Moses Boakye, Mrs. Susuana Appiah and Mrs. Naomi Mansah Simpson for their immeasurable support.

To all my friends, work colleagues and above all my family who encouraged me throughout the studies and supported in divers ways, I love you all.

My final appreciation goes to my fiancé, Mr. David Blankson for his love and assistance during the study.

ABSTRACT

Adolescents' sexual and reproductive health is a top priority of policy makers around the world. However, risks associated with their sexual behaviour continue to increase. Adolescents engage in sexual intercourse before finishing high school. In the era of HIV/AIDs and other STIs, it is found that either not using condom or having had multiple sexual partners is a significant problem among adolescents. Adolescents are increasingly learning about sexual issues from their peers but not from the family that serves as the first form of socialization and a medium to grooming the child into adulthood. It is in the light of this that the study sets out to examine the sexual behaviour among in-school adolescents within the Tamale Metropolis.

Self-administered questionnaires were used to elicit information from four Senior High Schools within the Tamale Metropolis. Simple random sampling technique was used to select a sample size of 424. Data analysis was carried out quantitatively using the computer packages, Statistical Package for Social Sciences.

Data collected revealed a worrying sign as 247 (58.3%) of the sample have had sex and 83.3% of those who had sex reported they did not use condom. On the issue of sources of sex information, the data revealed that 94 (22.5%) received education from their family, 136 (32.6%) from their teachers and 121 (29.0%) from their friends. Also, 82.6% of adolescents who received information from friends were found to have had sex. Sex education by parents could not have improved abstinence as 54.0% of respondents asserted that being talked to by parents cannot make them abstain whiles 46% indicated that sex education from parents could make them abstain.

Early sexual intercourse continues to increase considerably among adolescents even before they complete Senior High School. They do this irrespective of their religion, parents' economic status and type of school they attend. In-school adolescents are found to obtain sexual information mainly from their teachers because they believe that their teachers are more knowledgeable. However, regardless of the knowledge acquired, the study indicated that in-school adolescents' still engaged in an early sex as information from their friends influence their decision to engage in an early sexual intercourse.

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LIST OF ABBREVIATIONS/ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
CPO	Centre for Population Options
Ghana AHD	Ghana Adolescent Health Development Programme
HIV	Human Immunodeficiency Virus
PBR	Paediatrics Board Review
STIs	Sexually Transmitted Infections
UGBS	University of Ghana Business School
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
WHO	World Health Organization

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the study

Adolescent sexual and reproductive health has become a top priority of policy makers around the world (Hindin, Christiansen, & Ferguson, 2013; UNESCO & UNFPA, 2001). This is evidenced by the attempts by many countries to improve adolescents' health by several means, particularly, the promotion of sex education. However, risks associated with the sexual behaviour of adolescents continue to increase.

Adolescents are said to be persons between the ages of 10 and 19 years (WHO, 2014), but the ages of adolescents in this study are extended to include young people of 20 to 24 year olds. This is because some 20 to 24 year olds are in high school and are equally challenged with the same issues faced by the 10 to 19 year old adolescents.

Adolescents by the nature of being young, curios and developing physically tend to become sexually active. This is because the period of adolescence is characterized by physical, psychosocial and emotional changes as they transform from childhood into adulthood and this change is found to be associated with sexual maturity (Awusabo-Asare, Biddlecom, Kumi-Kyereme & Patterson, 2006; United Nations Population Fund & Paediatrics Board Review, 2012).

The family remains the first form of socialization that grooms the child into adulthood until a decision to marry is made. However, it looks like conditions such as urbanization and

modernization have inhibited some families' effort thereby leading them to neglect their role in grooming their adolescents.

Awusabo-Asare, Abane, and Kumi-Kyereme (2004) argue that some Ghanaian socio-cultural norms such as puberty rights promoted healthy sexual behaviour and child bearing within wedlock. They further claim that, healthy information was transmitted from older men and women through drama at community meetings to adolescents. However, according to Kudolo, Kavi and Abdul-Rahman (2008), most of these norms have been eroded due to lack of traditional sanctions that formerly inhibited premarital sexual activity. As the gap between the generations is reinforced by cultural globalization, young people are increasingly left to learn about sexual issues from their peers or from the mass media. These have culminated to a significant percentage of Ghanaian youth being sexually active. Daka and Shaweno (2014) further posit that financial hardships tend to cause some adolescents to exchange sex for money.

Additionally, Awusabo et al. (2004) found evidence in their study that the mass media serves as the main source of information for the young as compared to those promoted through peer education, seminars, religious preaching and community fora. The authors continue that adolescents give reasons to adopting internet and media as their source of sex information because the media has much education to offer than the traditional sources. They cite parents as an example for not having answers to most of their questions on sexual and reproductive health. Some parents also refuse to answer their questions and rather brand them as "bad." They further said that some male adolescents are uncomfortable in the discussion of sexual matters with their parents.

1.2 Statement of the problem

The health of adolescents is a major public health issue worldwide. This is partly because of the fact that adolescents form a significant proportion of the world's population. According to the World Health Organization (2014), adolescents constitute about 1.2 billion of the world's population. The period of adolescence is characterized by physical, psychological and emotional changes as adolescents transform from childhood into adulthood. The decisions made during this period of life affect not only their wellbeing, but also the wellbeing of entire societies (UNFPA & PBR, 2012). Specifically, negative sexual behaviours of adolescents have adverse impact not only on the development of the individuals involved but also on the development of the entire communities in which they live. Bankole, Biddlecom, Singh, Guiella and Zulu (2007) report that by the ages of 12-14, adolescents in Burkina Faso, Ghana, Malawi and Uganda are already sexually active and the sexual active adolescents believe that their other friends as well engage in sex. Also, Huebner and Howell (2003) found that adolescents are likely to engage in sexual intercourse before finishing high school. The adolescents' sexual activities lead to adverse effects such as unplanned pregnancies, high risk of contracting sexually transmitted infections including HIV/AIDs and sometimes sexual abuse which may lead to some psychological conditions such as depression. In the era of HIV/AIDs and other STIs, it is found that either not using condom or having had multiple sexual partners is a significant problem among adolescents.

To add to literature on the increasing social vices that are associated with adolescents' sexual behaviour, Adegoke, Fife and Corneille (2011) in their study disclosed documented report by the Centre for Population Options (CPO) that sexual intercourse before age 20 is common

among unmarried African adolescents of unmarried teens, ages 15-19 in Ghana, Kenya, Liberia and Togo.

While knowledge and awareness about sexual and reproductive health are almost universal, Africa continues to record high rates of abortions, teenage pregnancies, sexually transmitted infections and other sexual related problems. This is as a result that, only a few young people receive adequate preparation for their sexual lives as there continue to be limited opportunities for communication about sex outside of the peer educational setting and poor adult role models of sexual relationships (Campbell & MacPhail, 2002). Daka and Shaweno (2014) reviewed a study conducted in 2008 by Sese and Wirtu and concluded that adolescents have limited knowledge about sexual and reproductive health including the natural process of puberty. The lack of knowledge promotes early initiation of sexual activity and these sometimes lead to a number of negative reproductive health outcomes. (Bankole, Biddlecom, Guiella, Singh and Zulu, 2009; UNESCO, 2009).

In Ghana, 750,000 teenagers between the ages of 15-19 get pregnant annually (Government of Ghana official portal, 2014). The Brong-Ahafo Regional Health Directorate from January to June 2013, reported 235 girls between the ages of 10-14 having visited Antenatal Clinic, whilst 6,084 of late teens 15-19 years within the same periods patronized the antenatal clinic (ModernGhana.com, 16th September, 2013). Also, anecdotal evidence of the 2013 annual Family Health Division of the Ghana Health Service presented by Dr. Aboagye revealed a continuous percentage increase of teenage pregnancy. The teenage pregnancy rose from 12.4 in 2009 to 13.3 in 2013. Abortions among adolescents were also observed to be high as there

were 603 adolescent abortions among 10 – 14 year olds in 2012 and 574 in 2013. Adolescents of 15 – 19 years gave a record of 8,424 abortions in 2012 and 8,675 in 2013.

Esere (2008) posits "Because young people experiment sexually and because of the consequences of indiscriminate sexual activities on the youth, there is the need to mount sex education programmes that are geared towards enlightenment and appropriate education about sex and sexuality."

It is in the light of the above that this research is set out to examine these important questions: what are the sources of sex information to adolescents? To what extent does the parent-child communication influence adolescents' sexual behaviour? To what extent does the use of the social media affect sexual behaviour? And what are the reasons for abstaining from sexual intercourse among in-school adolescents in the Tamale metropolis? The researcher also seeks to identify the quality of students' knowledge on sex related factors such as knowledge in sex, STIs and HIV/AIDs, pregnancy and its associated factors.

1.3 Study objectives

1.3.1 General objective

i. The general objective is to examine adolescents' state of sexual behaviour.

1.3.2 Specific objectives

Specifically, this study aims to:

i. identify the sources from which adolescents obtain sexual information,

ii. determine the association between parent-child communication and sexual behaviour,

iii. identify the influence of social media on adolescent sexual behaviour,

iv. ascertain and rank the reasons for abstaining from sexual intercourse.

1.3.3 Research Question

With respect to the theme of this study, the following research questions are be addressed;

i. What are the sources of sex education to adolescents?

ii. How does parent-child communication affect sexual behaviour?

iii. To what extent does the social media affect adolescents' sexual behaviour?

iv. What are the reasons for abstaining from an early sex in adolescents?

1.4 Conceptual Framework

This study provides a conceptual framework by researcher's initiative which is inspired by the research objectives where it is believed that socio-demographic characteristics, source of sex information and parent child communication as well as the knowledge on sex and its associated risks influence adolescents decision to have or not to have sexual intercourse.

Figure 1. 1: Conceptual framework of adolescents' sexual behaviour

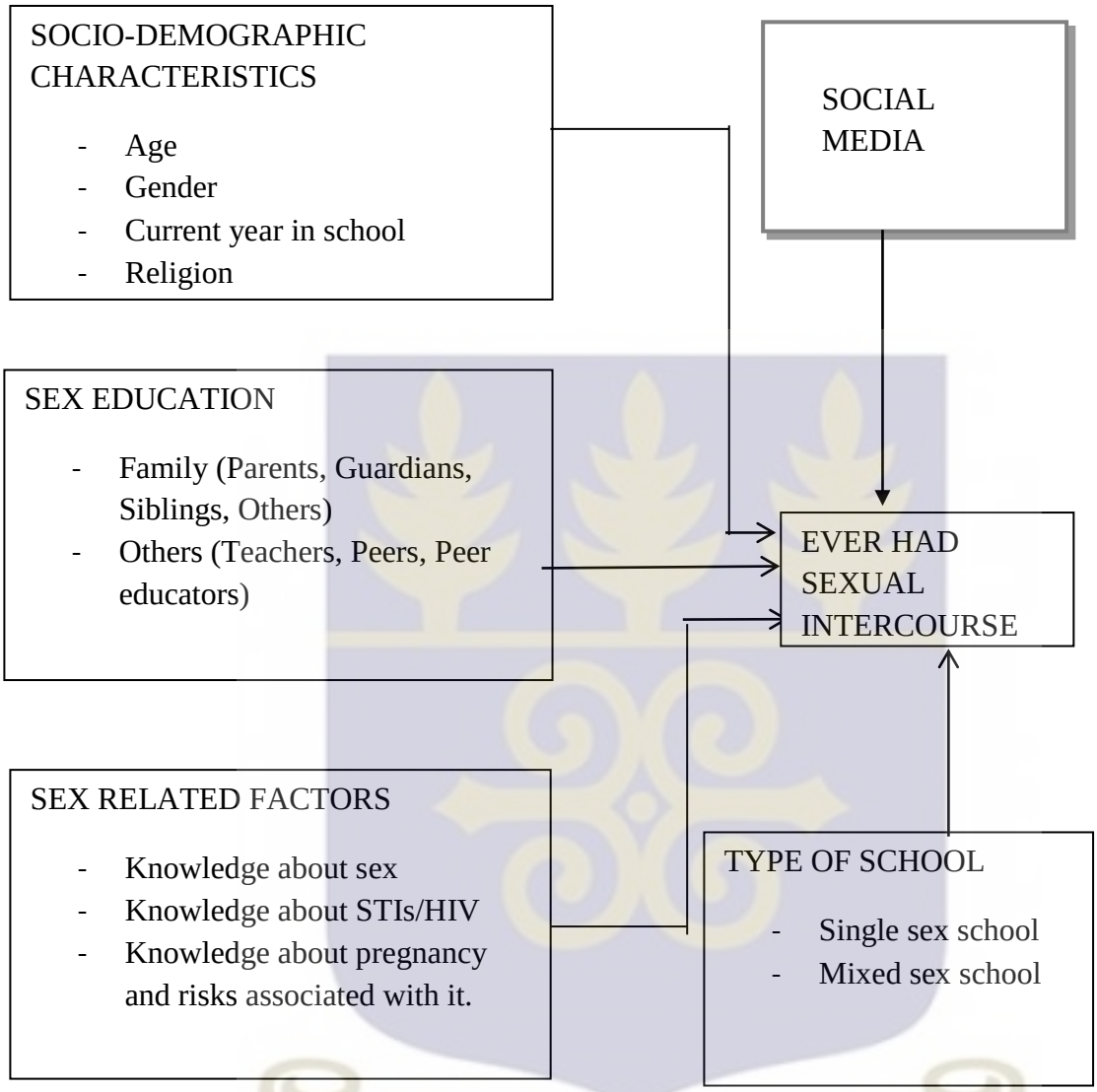

Figure 1.1 shows the dependent variable of sexual status. Operationalization of the dependent variable is whether the adolescent had ever had sexual intercourse (heterosexual) or not.

The independent variables interact to determine the sexual status. For example, adequate source of sex information will generally be necessary but not sufficient condition for adolescents to abstain from sex. Sexual intercourse is not likely to occur when the variables coalesce toward a healthy sexual behaviour. How knowledgeable adolescents are about sex

related factors could inform their decisions to engage or not to engage in sexual intercourse. For instance, in Ghana, the National population council (2000) was of the view that quality of sex education is crucial to prevent sexual activity in adolescents and that when well informed especially on issues regarding relationships and reproductive health, adolescents behave responsibly.

Socio-demographic characteristics are examined in relation to sexual status. The researcher sets out to find out whether Age, Gender, Religion and Socio-economic factors influence adolescents decision to have sex or not. Age plays a role with the growth in physical structure and aging also marks the beginning of emotional change during adolescence. Adolescents attempt to initiate sex as they grow and develop. In 2000, the Ghana National Population Council stated that, adolescents begin to seek answers to the physical and emotional change and in the search for answers become vulnerable when not presented with positive sexual and reproductive health images to help make informed decisions. Adolescents falling within the ages of 15 and 24 are more likely to initiate sex than the 10 to 14 year olds. This assertion is backed by key findings in the Ghana 2008 Demographic Health survey, which declares that 44% of women between the ages of 25–49 and 26% of men aging between ages 25–49 are sexually active at age 18. Female adolescents are more likely to initiate sex early than male adolescents. This is as reported by Awusabo-Asare, Biddlecom, Kumi-Kyereme and Patterson (2006) that 30% of females and 16% of males 15–19 years have already had sexual intercourse.

Poverty and low income earnings of the family affect adolescents' sexual behaviour. Nancy (2003) in her study found that, adolescents engage in sexual relationship with older persons

over varied reasons of which receipt of financial benefits is a major motivation. Poverty as according to Afenyadu and Goparaju (2003) drives adolescents into having sex with adult men and women for money. However, these adolescents are not able to have control over the sexual practices within partnership and condom use (Chartterji, Murray, London and Anglewicz, 2005). In their study, Lammers, Ireland, Resnick, and Blum (2000) also argue that, adolescents from families of high socio-economic status across all age groups and gender are identified with lower levels of sexual activity.

The social media can be a useful source of information when adolescents are guided on to its use. This is because the social media is found to impact social and emotional function (Shapira Lessig, Goldsmith, Szabo, Lazoritz, Gold and Stein, 2003). Borzekowski, Dina, Fobil and Asante (2006) found that, over 50% of adolescents seek online health information and they report great interest, high levels of efficacy, and positive perceptions of online health information. Evidence on the contrary, is that, internet becomes problematic to society when adolescents become more often attracted to chat sites, "mp3" sites, pornographic sites and many others (Bayraktar and Gun, 2006).

Another source of sex information which impact significantly on adolescents not to have sex is the family. The existence of both father and mother in the home promotes healthy sexual behaviour and adolescents are less likely to have sex during their early teenage years. This assertion is supported by Lammers et al. (2000) who found that, dual parent family impact the delay of onset of sexual activity among adolescents.

Sidze and Defo (2013) also studied parent–child relationships, parental monitoring, and parent–child communication about sexual matters and concluded that health programmes and

interventions for preventing young people's risky sexual behaviours in sub-Saharan African settings must take into account the protective effects of parent–child relationships and the significance of parental monitoring over time. To support the above assertion, Jaccard, Dittus, and Gordon (1996) studied maternal correlates of adolescent sexual and contraceptive behaviour and found that adolescents' perceptions of maternal disapproval of premarital sex and satisfaction with mother-child relationships are significantly related to abstinence from sex in adolescence.

In considering parental monitoring as important in not having sex among adolescents, Adu-Mireku (2003) also professes that, sexually active adolescents in Ghana have the family as a primary agent of socialization and that the family can exert a strong influence on adolescent sexual behaviour. In confirmation, Hutchinson, Jemmott, Braverman and Fong (2003), found that, mother-to-daughter sexual behaviour communication results in fewer episodes of sexual intercourse.

To the best knowledge of the researcher, no literature is found on the effects single sex or mixed sexed senior high schools have on adolescents' sexual behaviour. The study will contribute to obtaining literature on the type of schools (single sex or mixed sex) adolescents attend and its impact on their sexual behaviours.

1.5 Justification of the study

To promote healthy sexual bahaviour among adolescents for socio-economic growth in Ghana, the findings of this study serves as an intervention to equip adolescents with sexual knowledge to enable them to abstain from sexual intercourse until they reach adulthood.

The findings from the study serve to offer evidence-based information upon which policies will be formulated and reviewed.

The findings would help in the design of interventions to improve parent–child communication on adolescents' sexual behaviour.

The study as well serves to guide advocates to create the necessary framework in collaboration with all stakeholders for the provision of accurate and relevant health information and skills among adolescents, their families and the society at large.

In addition, the study adds to the growing literature on adolescents' sexual behaviour in Ghana and provides baseline data on which future surveys may be designed.

Finally, the study informs adolescents on the availability of the website (www.adhdghana.org) and for healthy sexual information to also visit periodically the social media by Ghana National Adolescent Health and Development Program (Facebook page).

1.6 Chapter Description

The scheme of this dissertation constitutes six chapters.

Chapter one is the introductory chapter which covers areas such as the background to the study, statement of the problem, conceptual framework, justification for the study, research questions and objectives.

Chapter two is a synthesis of relevant literature.

Chapter three presents detailed elaboration of the methodology used for the research.

Chapter four presents detailed analysis and findings of the data.

Chapter five consists of the discussion of findings.

Chapter six provides conclusion, recommendation and limitation to the study.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter synthesizes different sources of literature to determine the current knowledge on ever having sexual intercourse by adolescents in the following areas; sources of information on sex, influence of parent-child communication on adolescents' sexual debut, the influence of social media on their sexual debut and the reasons adolescents who have not yet initiated sexual intercourse give for abstaining from early sexual intercourse. The researcher also assesses the level of quality of evidence by critically evaluating previously documented research findings; examining consistencies, unveiling consistencies and flagging uncertainties for further review.

2.2 Source of adolescents' sex information

Sexual activity among adolescents continues to be one of the major public health concerns in the global world and though much effort are being made to educate adolescents, studies show that early sexual debut and premarital sex among many other issues relating to adolescents continue to increase. In making good decisions regarding sexual intercourse, Onyeonoro, Oshi, Ndimele, Chuku, Onyemuchara, Ezekwere, Oshi, Emelumadu, 2011 submitted that majority of adolescents lack access to credible sources of sex information at an early age and so lack the capacity to resist sex or lack the required skills necessary to negotiate for safer sex. The question to ask therefore is where do adolescents seek for sexual information?

Adolescents reported they have heard about sex and the most reported sources of sexual information as found in all 9 studies which were mostly conducted in Africa were two or three

out of the following sources; peers or friends, the mass media, siblings, parents and school teachers (Onyeonoro et al, 2011; Bankole, Biddlecom, Guiella, Singh & Zulu, 2007; The Alan Guttmacher Institute, 2014; Whitfield, Jomeen, Hayter, & Gardiner, 2012; Bleakley, Hennessy, Fishbein, & Jordan, 2009; Taiwo, 2012; Secor-Turner, Sieving, Eisenberg & Skay, 2011; Nwagwu, Okoye & Isiugo-Abanihe, 2011). However, the use of these sources varied across cultural and social boundaries with some adolescents combining one or two sources for information. Five authors between the period of 2007 and 2012 found out that young adolescents use a wide range of sources for sexual information. Peers were reported by 7 studies as the main source of sexual information which was ranked high among many other sources by adolescents (Onyeonoro et al, 2011; The Alan Guttmacher Institute, 2014; Whitfield et al, 2012; Bleakley et al, 2009; Taiwo, 2012; Secor-Turner et al, 2011; Nwagwu et al, 2011). The social media followed peers (Bankole et al, 2007; The Alan Guttmacher Institute, 2014). Whitfield et al, 2012 also observed that adolescents source sex information from their peers because they feel much comfortable to approach their friends. Consistent with seeking information from peers and from accessing the media, the Alan Guttmacher Institute further identified in a Focus Group Discussion that adolescents do not believe that their parents can answer questions on sexual and reproductive health.

Adolescents also reported the fear of been branded as "bad" if they should ask their parents such questions about sex. However, adolescents were of the opinion that sexual information from informal, familiar sources such as their parents can serve as a protective factor against sexual risk outcomes, especially among younger adolescents in the United States (Onyeonoro et al, 2011; Taiwo, 2012; Secor-Turner et al, 2011). The media, especially television and friends are believed to relate to increased chances of ever having sex among adolescents,

increased number of sexual partners and the decreased use of condoms (Onyeonoro, et al, 2011; Nwagwu, Okoye & Isiugo-Abanihe, 2011).

Adolescents living with disabilities are often left out of many studies and Taiwo, 2012 in a study to investigate access to sexual information and education among in-school adolescents with disabilities confirmed that adolescents living with disabilities are neglected to discover information about sex from their friends who do not know better. The same studies believed that the teachers of these adolescents living with disabilities lack the capacity to educate the adolescents.

2.3 Parent-child communication and adolescents' sexual debut

Parent-child communication can be said to mean the sharing and relaying of information between parents and their children. Parent-child communication is an important factor that can leave a lasting effect on children's action. It also helps to improve the sexual health and behavioural outcomes in adolescents when most importantly adolescents happen to live with both biological parents. The search for researched and reviewed articles revealed some form of communication between parents and children that impact adolescents' sexual behaviour, however, inconsistencies existed in most studies that were studied. Majority of authors found that parent-child communication improved adolescents' sexual behaviour. (Kumi-Kyereme et al. 2007; Bastien, Kajala & Muhwezi, 2011; Sutton, Lasswell, Lanier, Willis, & miller, 2013; Biddlecom, Awusabo-Asare & Bankole, 2009; Ngom, Magadi & Owuor, 2003; Huebner & Howell, 2003; Wright, Williamson & Henderson, 2006; Alhassan, Dodoo & Nkrumah, n.d). Adolescents are also able to abstain from sexual intercourse when they live with both parents or have a father-figure at home (Biddlecom et al, 2009; Ngom et al, 2003).

On the contrary a few number of studies also found an association between parent-child communication and adolescents having sex (Bastien, Kajula & Muhwezi, 2011; Sutton, Lasswell, Lanier, Willis, and Miller, 2013). Adolescents who had their parents communicating with them about sexual and reproductive issues reported doing so because they felt comfortable to communicate with their parents most especially when it was their mothers (Kumi- Kyereme et al, 2007). Kumi-Kyereme et al in 2007 explain further that, for adolescent females, living with both parents/ parent-figures does matter much with respect to sexual activity although in Uganda some adolescents females living with both parents were found less likely to be sexually active. In general, the same article concluded that having to live with one parent or a parent figure only was not associated with the risk of sexual activity in comparison with those living with no parents/parent-figures. The plausible explanation of a negative relationship between sexual activity and males living with mother/mother-figure could be the support and close monitoring that such women may give to their sons. Kumi-Kyereme et'al, 2007 used data from three sources: Focus group discussions (FGDs) of 14–19 year olds among in-school and out-of-school male and female adolescents from both urban and rural areas, in-depth interviews with 12–19 year olds, and a nationally-representative survey of 12–19 year olds to identify the real issues with parent-child communication. Their discussions were conducted with homogenous groups of adolescents, segregated by sex, urban/rural residence, and school status (in or out-of-school). This made their study much representative. However, the study could have extended their respondents to include parents to give their side of the story.

Notwithstanding, some other studies reported a need for parental efforts, confidence and skill to communicate with adolescents on sexual issues since majority of parents lacked the capacity to do so (Bastien et al, 2011; Akintomide & Bada, n.d; Botchway, 2004).

Biddlecom et al, 2009 used data from nationally representative household-based surveys of female and male 12–19 year olds in 2004 with 5,955 adolescents in Burkina-Faso, 4,430 in Ghana, 4,031 in Malawi and 5,112 in Uganda found from the study that, parental communication about sex-related matters were low: Between 8% and 38% of adolescents reported having a parent or parent figure talked to them about sex. In Uganda, 38% of females said a parent had talked to them about sex- related matters, compared with 20% of males. There are delays in early sexual intercourse when parents impart quality sexual information to their children. Basten, Kajula and Muhwezi, 2011 reviewed articles conducted in sub-Sahara Africa and reported from one cross-sectional study conducted in Ivory Coast that parent- child communication is associated with delayed sexual debut or primary sexual abstinence, as well as secondary sexual abstinence and a reduction in number of sexual partners among girls.

On the contrary, when parents do not give quality information to their children, whatever is said to their adolescents especially about discussions which tend to be authoritarian and unidirectional and characterized by vague warnings rather than direct, open discussion makes no impact and adolescents fall to early sexual intercourse. For instance, among Malawian males and Ugandan females, sexuality communication was associated with increased odds of having had sex (Bastien et al, 2011). In spite of some delays of sexual intercourse associated with parent-child communication, some other studies show that there are variations with regards to a father or mother alone and child communication, the impact of sex information

can positively or negatively inform adolescents' decision to initiate or delay sex. For instance, in their reviewed articles, Bastien et al, 2011 again found in a cross-sectional study in Nigeria that adolescents that were 'instructed' by their mothers about sexual matters before puberty were most likely found to have had their sexual debut earlier than those who had not received the same instruction. While on the contrary, having fathers only communicating with adolescents in a cross-sectional study was negatively associated with having had sex among boys but on the other hand a positive association with having had sex among girls (Kumi-Kyereme et al, 2007).

Ngom et al, 2003, conducted a study which revealed some uncertainties as observed in their findings. The authors used data from the Nairobi Slums Cross-Sectional Survey (NCSS) conducted by the African Population and Health Research Center between February and June 2000 and the 1998 Kenya Demographic and Health Survey. A secondary analysis of these data was designed to be representative of households in all slum clusters of Nairobi. The focus of this article has been on the association between the present of biological parents in the home. Findings from the research suggested strongly that adolescents living with their fathers are less sexually active and are less likely to experience unwanted pregnancies than those who live only with their mothers or those who live with neither parent. Within the poverty-stricken informal settlements setting of Nairobi, it is also possible that adolescents in single-mother households or living with neither parents were more likely to engage in commercial sex, which may explain their higher sexual activity and rates of unwanted pregnancies.

2.4 The influence of social media on adolescents' sexual debut

Social media examples are the Twitter, WhatsApp, Facebook, Skype, Instagram, YouTube, Blogs, Linkedin and many other platforms where people meet to interact by creating, sharing and exchanging information. The use of such of platforms has positive and negative influences on adolescents especially where sexual information is concerned.

Studies have found that some adolescents received health information from social media sites which is beneficial in promoting healthy sexual behaviour. Borzekowski & Rickert (2001) researched into issues of access and content and came up with health- related sites where 27% of adolescents get health information on topics such as sexual activity, contraception, pregnancy among many others.

Regardless of the positive outcomes associated with the use of some social media sites, it also negatively impacts. Ragsdale, Bersamin, Schwartz, Zamboanga, Kerrick & Grube, 2014, found that greater exposure to movies with high sexual content predicted early sexual debut and other sexually risky behaviours. Some studies found that learning about sex from the internet, watching pornographic videos/movies and preferring western movies/videos are associated with more permissive attitudes to premarital sexual intimacy and a higher level of sex-related behaviours (Onyeonoro et al, 2011; Nwagwu, Okoye & Isiugo-Abanihe, 2011; Ankomah et al, 2011; Lou, Cheng, Gao, Zuo, Emerson, & Zabin, 2011; Ragsdale, Bersamin, Schwartz, Zamboanga, Kerrick & Grube, 2014).

2.5 Reasons for abstaining from sexual intercourse in adolescents

Five articles were identified in this synthesis and all studies shared reasons adolescents give for abstaining from sexual intercourse. Most common reason with all studies were; religious injunctions against premarital sex, STIs and HIV/AIDS prevention, prevention of pregnancy and its associated risks such as dropping out of school, abortion, infertility arising from unsafe abortions, the fear of bringing shame to the family as a result of pregnancy, Lack of a partner and the postponement of sex until marriage among many other factors were cited by adolescents for abstaining from sexual intercourse (Ankomah et al, 2011; Hanson, McMahon, Griese & Kenyon, 2014; Haglund, 2008; Kabiru & Ezeh, 2007).

Kabiru & Ezeh, 2007 in their study reported that as a result of fear of contracting STIs and HIV, a close to 70% of Malawian and Ugandan males abstain from sexual intercourse. However the fear of contracting STIs and HIV among Burkinabé and Ghanaian males were reasons for abstaining from sexual intercourse and this was much lower. In all countries, except Malawi, female adolescents were about 2 times likely than males to wait until marriage before being sexually active. Burkinabé, Malawian, and Ugandan females were also 4 times more likely than their male counterparts to abstain for the fear of pregnancy. Nearly a quarter of primary abstinent males in Burkina Faso reported that they were too young to engage in sexual activities.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

According to Ellis & Levy (2005) methodology is the steps which are taken to derive reliable and valid answers to research questions. There are various methods which includes case study, experimental research, and survey among others. A survey is an examination or description of someone or something. The study adopts a survey to describe the sexual behaviour of in-school adolescents.

The presentation is discussed under the following headings among others; type of study, study population, sampling techniques, data collection methods and tools.

3.2 Type of study

The study is a cross-sectional study and therefore descriptive in nature. According to Varkevisser, Pathmanathan and Brownlee (2003), descriptive study involves describing the characteristics of a particular situation, event or case. The study aimed at describing and quantifying the variables in the target population. This is so because the researcher was only interested in determining the influence of the independent variables (age, gender, religion, family background, teachers, peers, peer educators, parent-child communication, the social media, knowledge on sex related factors and the type of school) on the outcome variable (ever had sexual intercourse, which is, whether or not sexual intercourse had been initiated).

The data collection technique used was self-administered questionnaires to elicit for the necessary information from the study participants.

3.3 Study location/area

The study location was mainly within the Tamale Metropolis of the Northern region of Ghana. The capital of the Metropolis is the capital of the Northern Region and it lies between latitude 9.16^0 and 9.34^0 North and longitudes 00.36^0 and 00.57^0. The Tamale Metropolis is one of the twenty six districts in the Northern Region and it is located in the central part of the Northern Region. It shares boundaries with five other districts, namely the Savelugu-Nanton to the North, Yendi Municipal Assembly to the East, Tolon-Kumbungu to the West, and Central Gonja to the South.

According to the 2010 census the Tamale Metropolis has a 2013 projected population of 562,919. There is ethnic diversity, however, all the people in the surrounding villages are Dagombas with about 80% of the total population being Dagombas in the Metropolis. The culture of the natives were deeply enshrined in their customs and beliefs which is manifested in the numerous traditional festivals still practiced. These practices are no longer pronounced in the Tamale Metropolis as a result of the ethnic diversity and the influence of both Eastern and Western cultures. Islam is the predominant religion in the Metropolis with 84% of the population affiliated to it (Ministry of Local Governments and Rural Development and Maks Publication and Media Services, 2006).

3.4 Study population

The population for the study was students in Senior High Schools. The researcher chose Senior High students because per the Ghanaian education most of adolescents are found in the Senior High schools and are presumed to be sexually active. For the purposes of this study, adolescent refers to people aged 10 to 24 years.

3.5 Variables in the study

The outcome variable is "ever had sexual intercourse?" The sexual intercourse is limited to sex in heterosexual relationship.

The independent variables are as indicated in bullets below;

- Gender of respondent
- Age of respondent
- Type of school attended
- Current year in school
- Educational status of respondent's parents
- Employment status of respondent's parents
- Sources of sex education.
- Parent-child communication about sexual issues
- Social media influence
- Knowledge on sexual and reproductive health issues

3.6 Source of data

Data collected was of primary source. The primary source relates to the data that was collected from the respondents who answered the questionnaires. Primary data is useful for this study because it is taken directly from the respondent purposely to meet the objectives of the study.

3.7 Sampling techniques

3.7.1 Sampling

The Tamale Metropolitan area has seven public Senior High schools of which there are only two single sex schools. The two single sex schools were purposively selected. Simple random sampling, 'the lotto technique' was used to pick two additional mixed sex schools to include in the study. Students in the following public schools are to represent all in-school adolescents within the Tamale Metropolis.

- Business Senior High School (Mixed sex school)
- Ghana Senior High School (Mixed sex school)
- St. Charles Senior High School (Single sex- Boys school)
- Tamale Girls Senior High School (Single sex- Girls schools)

3.7.2 Sample size calculation

The sample size was calculated using the formula $n = \frac{z^2 pq}{d^2}$,

Where; 'n' is the sample size

'p' is an estimated proportion of the study population, which is estimated to be 50% (0.50)

'q' is 1-p (ie 1 - 0.5= 0.5)

Margin of error, 'd' is 0.05 (by default)

A Confidence interval of 95% was used to determine the z-score

z: 1.96

$$n = \frac{1.96^2 \times 0.50 \times 0.50}{0.05^2}$$

n = 384. 16

n = 385

However, 10% was added to cater for non-response which brought the total sample size to 424 participants.

3.7.3 Sampling procedure

In these schools, the first, second and third year classes or forms were targeted for the study population. Proportional sampling technique was used to select sample size of 424 from the four selected schools which had a total population of 5,864.

Proportionally, each school's sample size was calculated to be;

Total population of the school multiplied by recommended sample size over Total population of all schools.

The sample size calculated for the schools can be found in the appendix.

From the various classes or forms (form 1-3), simple random sampling was used to select study participants from their respective schools. The entire students in the class were numbered and a sample size generator was used to generate numbers to select the students.

The required sample size for each class was thus, calculated. For instance in generating a set (1 set) of numbers, for example 43 sample size as calculated for form one students for the first

school. Out of a total population of 593 the Randomizer form generated from a range of 1-593 the following numbers which were sorted from the least to the greatest;

28, 35, 36, 43, 76, 82, 153, 164, 180, 183, 189, 218, 222, 230, 247, 265, 269, 281, 290, 302, 313, 318, 322, 334, 338, 341, 384, 387, 417, 423, 429, 440, 445, 457, 472, 474, 482, 487, 501, 524, 529, 560, 593.

3.8 Data collection Techniques/ Methods & Tools

The data collection instrument used consisted of structured questions. A questionnaire is a self-report instrument used for gathering information about variables of interest for an investigation. A well-structured survey questionnaire was used to limit and ease the analysis of response-variation among respondents. In the preparation of the questionnaire, relevant questions about the study, as well as the capability and willingness of respondents were considered. Therefore, the questions were not so much sensitive to discourage the respondents in giving accurate answers.

More closed-ended questions were used in order to limit the respondents to choices from which they can give a response.

The structured questionnaires were hand delivered by the researcher with the help of three research assistants in eliciting for information from the study participants.

Section A consists of socio-demographic data of adolescents and their family.

Section B consists of structured questions which measured sexual status and premarital sexual activities.

Section C consists of sex information and sources

Section D consists of parent-child communication and adolescents' sexual behaviour.

Section E consists of the influence of social media on adolescents' sexual behaviour and Section F on knowledge of sex-related factors and reasons adolescents give for abstaining from an early sexual intercourse.

3.9 Quality Control

The questionnaire was subjected to content validity by the researcher's Supervisor after which it was pilot tested to delete or reconstruct questions found to be of no relevance. In addition, to ensure that good, reliable and quality data were gathered, the researcher employed the services of three Community Health Nurses as her research assistants. The assistants were skilled and knowledgeable in the topic as well as in the local cultural conditions and were also trained prior to data collection. In addition to the research assistants, the researcher was also on the field in person to give clear explanation of the purpose and procedure for the study and clarified issues of concerns regarding the filling of the questionnaire.

During the data collection period, filled questionnaires were checked to ensure they were well filled and finally, the researcher reviewed the data during the data analysis stage to check whether the data were complete. All data were complete.

3.10 Data processing and analysis

Data processing commenced with field editing to check the appropriateness, consistencies and accuracy of the information given by the study participants. Serial numbers were assigned to individual edited questionnaires.

To make data meaningful requires statistical analysis. According to Nnadi-Okolo (1990 p. 151), to draw valid conclusions and make reasonable decisions on data requires the use of statistical methods to the description of data.

Data analysis was carried out quantitatively using the computer packages, Statistical Package for Social Sciences (IBM SPSS Statistics 20) and Excel 2013.

SPSS was used as it is one of the most popular statistical packages which can perform highly complex data manipulation and analysis with simple instructions. Using SPSS can manipulate data, present frequency tables, make graphs and perform statistical techniques varying from means to regression.

The completed questionnaire was inspected for accuracy. The closed ended questions were coded and the open ended questions were extracted and also coded. The data were screened for errors and corrections were made prior to the analysis. Screening was made to check for raw data, identify outliers and deal with missing data. The data were then analyzed using Excel 2013 and SPSS and Excel 2013. Frequencies, mean ranking, chi square and logistic regression were determined.

3.11 Ethical consideration

Ethical clearance was obtained from the Ghana Health Service Ethical Review Committee and permission was sought from the Heads of four Senior High Schools within the Tamale Metropolitan area before data collection. The consent of the adolescents and the young people and their guardians were sought. Consent forms were first read and explained and afterwards given to the study participants and their representatives to sign.

All responses are treated in the strictest confidence and only summarized results will be made available to the Ghana Education Service and Ghana Health Service. Students who expressed interest to opt out of the study were allowed to do so and all efforts put in place to ensure privacy to those who took part in the study.

The researcher declares emphatically that the study was meant for academic purpose and thus, does not hold any conflicting interests.

3.12 Pre-test

The study was pre-tested on 10 students at the Vitting Secondary/ Technical School in Tamale. The pre-test was done to serve as an extra training for the research assistants as well as for the team to determine the sensitivity needs and wishes of the study population with regards to the questions. The pre-test helped to remove ambiguities and the necessary corrections made. The pre-tested data were also analyzed which gave an indication that the data collected had the necessary investigative questions.

CHAPTER FOUR

4.0 DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents the results of the study. Four hundred and twenty four questionnaires were administered to two mixed sex Senior High Schools and two single sex Senior High Schools.

With the exception of some few missing responses all questionnaires were free from errors and as a result all four hundred and twenty four questionnaires were analyzed. The results of the study are presented with a brief interpretation as shown under the following Tables.

4.2 Background characteristics of respondents

Table 4. 1: Demographic Data on adolescents and their family (N = 424)

		Count	%
Gender	Female	221	52.1
	Male	203	47.9
Age of Respondent	<= 14	4	0.9
	15 – 19	375	88.4
	20 – 24	45	10.6
Religion	Christian	168	39.6
	Muslim	256	60.4
Type of School attended	Single sex	135	31.8
	Mixed sex	289	68.2
Current year in school	Year one	145	34.2
	Year Two	154	36.3
	Year Three	125	29.5
Educational background of Mothers	None	62	14.6
	JHS	90	21.2
	SHS	178	42.0
	Tertiary	94	22.2
Educational background of Fathers	None	55	13.0
	JHS	31	7.3
	SHS	171	40.3
	Tertiary	167	39.4
Employment status of Mother	Employed	314	74.1
	Unemployed	110	25.9
Employment status of Father	Employed	341	80.4
	Unemployed	83	19.6

- **Sex distribution**

Table 4.1 shows that out of the total sample size of 424 respondents, 52 % were females and 48% males.

- **Gender distribution**

The gender distribution is a representation of the student population in the four schools. The analysis revealed that majority of respondents who took part in this survey fell within the age group of 15-19 years which represent 88.4% with the median age of 17 years.

- **Type of school**

With type of school, majority of the respondents (68.2%) were in the mixed sex school. The year groups were graded into Year 1-3 with the highest proportion of (36.3%) in year two.

- **Employment status of parents**

From Table 4.1, about three-quarters (74.1%) of respondents' mothers were employed whilst 25.9% of them were not employed. Fathers' of respondents who were gainfully employed were 80.4% while those who were not working were about 19.6%.

4.3 Analysis of sexual behaviour

Table 4. 2: Sexual behaviour

Variable		Count	%
Ever been in a relationship with opposite sex	No	114	26.9
	Yes	310	73.1
Ever had sexual Intercourse	No	177	41.7
	Yes	247	58.3
Age at first sexual intercourse	<= 14	98	23.1
	15 – 19	145	34.2
	20 – 24	2	0.5
Having had a sexual partner recently	No	83	19.6
	Yes	161	38.0
Sexual partners within last 3months	Single partner (1)	126	55.3
	Multiple partners (2 or more)	102	44.7
Description of first sexual experience	Own will	154	36.3
	Coaxed	53	12.5
	Forced	38	9.0
Pressure from others to have sex	No	77	18.2
	Yes	169	39.9
Main persons whom pressure is felt to have sexual intercourse	Friends	118	27.8
	Relatives	13	3.1
	Work/Colleagues	1	0.2
	Partner/Special friend	38	9.0
	Other	3	0.7
Sexual intercourse in exchange for cash or gift	No	216	50.9
	Yes	28	6.6

- **Sexual initiation of respondents**

Table 4.2 indicates the distribution of respondents' sexual status. From the Table, majority of respondents (73.1%) had ever been in a relationship with the opposite sex and out of these respondents (58.3%) have had sexual intercourse. At ages 15 to 19 years (34.2%) have had their first sex. Also, (38%) of those who had experienced their first sexual intercourse have sexual partners.

Out of those who have had sex, (48.6%) indicated that they have had two or more sexual partners within the last three months. They explained that they willingly offered themselves in their first sexual relationship so they were neither coaxed nor forced.

Further, respondents were asked whether they felt pressured from others to have sexual intercourse and results of responses are presented in Table 4.2.

Analysis from Table 4.2 indicates that about 40% of respondents stated the main group of persons from whom they felt most pressure was friends.

4.4 Analysis of the use of contraceptives

Table 4. 3: Contraceptive use

Variable		Count	%
Condom use at first sex	No	204	83.3
	Yes	41	16.7
Use of other contraceptive methods after initiation of first sex	No	187	81.7
	Yes	42	18.3
Use of contraceptive methods to delay or avoid getting pregnant	No	142	63.7
	Yes	81	36.3
Acquisition of contraceptives	Pharmacy	42	82.4
	Hospital/clinic	7	13.7
	Family planning	2	3.9
	Field worker	0	0.0
Ever been pregnant or made someone pregnant?	No	195	85.5
	Yes	33	14.5
Outcome of pregnancy	Resulted in a live birth	9	27.3
	Miscarried	1	3.0
	Aborted	23	69.7
Number of pregnancies	<= 2	27	81.8
	3+	6	18.2
Age during first pregnancy	<= 14	7	21.2
	15 – 19	26	78.8
	20 – 24	0	0.0

- **Use of contraceptive methods**

To prevent unwanted pregnancies and STI's which includes HIV, it is expected that active sexual age groups of people, especially adolescents, would use the various contraceptives which serve different purposes. Table 4.3 shows the distribution of contraceptive use among students.

Respondents were asked whether they used a condom the first time they had sex. It was found that 16.7% did use condoms whereas majority (83.3%) indicated they did not. Respondents who used the contraceptives were asked to indicate where they got them from and results in Table 4.3 indicate that majority (82.4%) purchased them from the pharmacy; whereas 13.7% got them from the clinics or hospitals.

- **Pregnancy and outcome**

Respondents were also asked to indicate whether they have ever been pregnant or made someone pregnant and results from the Table showed that majority of respondents (86%) reported in the negative as ever been pregnant or made someone else pregnant while 14.5% who stated they have ever been pregnant or made someone pregnant resorted to abortion. Respondents who have had an abortion before represented (69.7%)

When they were further asked to indicate the number of times they have had an abortion, it was realized that most of them have had at least two abortions. Interestingly, majority of the respondents (79%) who responded that they have ever been pregnant or made someone pregnant actually came from the age group of 15-19 years.

Further, respondents were asked to rank reasons for their abstinence and the mean of their rankings are presented in Table 4.4.

4.5 Drivers of sexual abstinence

Table 4. 4: Reasons for sexual abstinence in adolescents who have not had their first sexual intercourse

Variable	Mean Rank
I think that sex before marriage is wrong	3.84
I am afraid of getting pregnant	3.77
I am afraid of getting HIV/ AIDS	3.71
I have not had the opportunity	3.60
I am afraid of my parents	3.20
I don't feel ready to have sex	2.88

For respondents who had no sexual experience, the study sought to find out the reasons for their abstinence. Six possible reasons were outlined for respondents to rank in order of importance the factors that accounted for their abstinence. Table 4.4 presents results analyzed in respect of this. A scale of 1-6 was given to respondents to rank them in order of importance where 1 represented the most important reason and 6 been the least important factor for abstaining. From the rankings; averages were calculated in line with the scale to determine the factors that led to abstinence in order of importance. It was realized that respondents not feeling ready to have sex was ranked the most important factor with a mean of 2.8. Been afraid of their parents was the second most important factor with a mean of 3.2. The third most important factor according to the rankings was that they never had the opportunity to have sex with a mean of 3.6. The fourth factor was respondents been afraid of contracting HIV/AIDS with a mean of 3.71. Respondents being afraid of becoming pregnant and seeing sex before marriage as wrong were ranked 5th and 6th respectively with means of 3.77 and 3.84.

4.6 Main Source of sex education and information

Table 4. 5: Sex Education and information sources, Social media and sexual initiation

Variable		Count	%
Receiving information on sex	No	7	1.7
	Yes	417	98.3
Main source of sex education	Family	94	22.5
	Teachers	136	32.6
	Friends/Peers	121	29.0
	Peer educators	29	7.0
	Social/mass media	37	8.9
Reasons for sourcing information on sex	Feel comfortable with source	96	23.0
	Source is Knowledgeable	221	53.0
	Readily available	93	22.3
	Other	7	1.7

- **Source of sex information**

Educating adolescents on sex has become an issue of much concern to researchers and most policy makers. This is because if it is successful, it will not only go a long way to prevent unwanted pregnancies, street children and other sexually related diseases but will also help students to have positive minds towards life.

The study intended to find out about the sources of information on sexual and reproductive health issues accessed by adolescents and to identify the reasons behind sourcing for sex information from such sources. Results are presented in Table 4.5

In Table 4.5, a large majority of 98.3% indicated they have ever heard information on sex. When respondents were further asked to state their major source of sex education, they

indicated that Teachers (32.6%) and friends (29%) were the two major sources of sex information. They gave the reason for seeking information from the teacher as being knowledgeable in the area of sex and its related issues.

4.7 Social media and sexual initiation

Table 4. 6: Social Media and Sexual initiation

Variable		Count	%
Access to social media for information	No	0	0.0
	Yes	424	100.0
Use of social media	Very often	189	44.6
	Occasional	235	55.4
Influence of social media on sex	No	273	64.4
	Yes	151	35.6

In recent time, social media has become one of the popular and mostly widely used platforms for sharing and receiving all forms of information. As a result, the researcher sought to find out first whether respondents followed any social media or had access to social media and if social media influenced in any way their sexual behaviour.

Analysis from Table 4.6 showed that almost all respondents followed or accessed one or more social media. Also, majority of the respondents (55%) stated they occasionally accessed the various social media while 45% of them stated they accessed very often various social media.

Further analysis revealed that 64% of the respondents indicated mass media did not encourage them to engage in sexual intercourse while 36% responded that it did encourage them to indulge in sex.

4.8 Rank of social media access

Table 4. 7: Social media accessed most by adolescents

Social Media	Mean Rank
Other	10.00
Flicker	9.00
Skype	7.08
Tango	6.50
Viber	5.17
Twitter	5.08
Instagram	4.67
Facebook	3.17
Whatsapp	3.00
Youtube	1.33
Other	1.20

In order to establish the social media respondents accessed most for information, a list of 9 potential social media platforms were provided for them to choose from and rank in order of importance. To this end, a scale of 1-9 was set out for respondents to indicate. Point 1 on the scale indicated the platform with the most important and it followed in a descending order to point 9 indicating the least important. Mean or averages were computed to determine the social media platforms respondents commonly accessed. Results of the rankings are presented in Table 4.7.

From the Table, "YouTube" with a mean of 1.33 was the most accessed social media. This was followed by "Whatsapp" with a mean of 3.00, "Facebook" with a mean of 3.17 followed

accordingly. The least accessed social media platforms were Skype, flicker and others with means of 7.08, 9.0 and 1.20 respectively.

- **Gender and sexual initiation**

As shown in Table 4.8, more female respondents indicated they have had sexual intercourse. From the respondents, 60.2% of the 221 females in this survey indicated they have had sexual intercourse whereas 56.2% of the 203 males' respondents reported to have had sexual intercourse. It is therefore reasonable to conclude that female adolescents were more likely to engage in sexual intercourse than their male counterparts.

- **Age and sexual initiation**

With regards to age, evidence in Table 4.8 shows that adolescents between the ages of 17 and 18 (58.7%) of the total sample were found to have had an early sex than the other age groups.

4.9 Association between sexual behaviour and socio-demographic

Table 4. 8: Bivariate association between adolescents' sexual behaviour and socio-demographic characteristics

		Ever had sexual Intercourse?				
		No		Yes		
Variable		Count	%	Count	%	X^2 (*p*-value)
Gender	Female	88	39.8	133	60.2	0.70 (0.40)
	Male	89	43.8	114	56.2	
Age of Respondent	<= 14	3	75.0	1	25.0	8.78(0.03)
	15 – 16	37	54.4	31	45.6	
	17 – 18	90	41.3	128	58.7	
	19+	47	35.1	87	64.9	
Religion	Christian	74	44.0	94	56.0	0.61 (0.44)
	Muslim	103	40.2	153	59.8	
Type of School	Single sex school	59	43.7	76	56.3	0.31 (0.58)
	Mixed sex school	118	40.8	171	59.2	
Current year in school	Year one	61	42.1	84	57.9	0.95 (0.62)
	Year Two	68	44.2	86	55.8	
	Year Three	48	38.4	77	61.6	
Employment status of mother	Employed	129	41.1	185	58.9	0.22 (0.64)
	Unemployed	48	43.6	62	56.4	
Employment status of father	Employed	146	42.8	195	57.2	0.82 (0.37)
	Unemployed	31	37.3	52	62.7	
Living condition	Both parents	112	44.1	142	55.9	5.78(0.33)
	Mother only	28	39.4	43	60.6	
	Father only	8	36.4	14	63.6	
	Guardian	20	32.8	41	67.2	
	Siblings	9	60.0	6	40.0	
	Other	0	0.0	1	100.0	

- **Employment status of parents**

Contrary to the view that adolescents whose parents are not gainfully employed are more exposed to promiscuity; this study results found otherwise. From the data collated, adolescents whose parents were gainfully employed rather indulged in sexual intercourse than

their colleagues whose parents were unemployed. For instance 185 (59.9%) respondents whose mothers were gainfully employed indicated they have had sexual intercourse. Similarly 195 (57.2) respondents whose fathers were employed indicated they have had sex.

- **Religion and sexual initiation**

In all, adolescents who responded to the questionnaire were either Christians or Muslims with no one identified with other religion. Muslims were numbered 256 whiles Christians were 168. Out of the 256 Muslims, 153 of them representing 59.8% indicated they have had sexual intercourse before. Also 94 out of the 168 Christian adolescents representing 56% indicated they had engaged in sexual intercourse.

- **Type of school and sexual initiation**

One key variable that was considered in appreciating adolescents sexual behaviour was the type of school attended. Here, two categories of schools were considered; these were single sex schools and mixed schools.

The general notion is that adolescents attending single sex schools are more likely to abstain from sex than their colleagues in the mixed sex schools. Results of the chi square test in this survey confirmed the above assertion. 135 adolescents were identified as students of single sex school; 76 out of these students reported to having had sex representing 56.3% with 43.7% abstaining from sex. Again, 259 students were identified as students from mixed schools and out of this figure, 171 mixed schools students reported that they have had sex representing 59.8% while 40.2% of mixed school students abstained from sex.

- **Living condition of respondents**

The person whom adolescents lived with was important factor in determining what influenced their decision to have sexual intercourse. The common assertion is that single parenthood or

parenting other than parenting from both biological parents is a recipe for promiscuity or moral decadence.

In respect of this, respondents were asked to identify their type of parenting in order to match it up with their sexual life. In all, 254 respondents indicated they lived with both biological parents; 142 of these adolescents indicated they have had sex representing 55.9% with the other 112 representing 44.1% abstaining from sex. Also 71 respondents reported they lived with their biological mothers only; 43 out of these respondents representing 60.6% have had sex. Only 28 respondents representing 39.4% abstained from sex.

Further, 24 respondents stated they lived with both biological parents and 8 respondents within this group abstained from sex representing 36.4%. On the other hand, 14 respondents reported to have had sex which represents 63.6% of the population of respondents living with their biological parents.

For adolescents living with guardians, 61 respondents indicated they lived with guardians. 20 respondents abstained from sex representing 32.8% whereas the remaining 41 respondents engaged in sex representing 67.2%. Based upon the data presented in Table 4.8, it is logical to state that adolescents under single parenthood or leaving with guardians are more likely to have sexual intercourse. Evidence to support this claim is seen in the fact that 67.2%, 63.6%, 60.6% and 55.9% of adolescents living with their guardian, biological fathers, biological mother and both biological parents respectively have ever had sex.

It is also interesting to note from the figures above that adolescents living with only their biological fathers are more likely to have sex than their colleagues living with their biological mothers only.

Table 4.8 further illustrates results of a chi square test conducted to ascertain the relationship between the outcome variable "ever had sexual intercourse" and other independent variables.

The test was essentially to establish the level of association between respondents sexual behaviour (ever had sexual intercourse) to the independent variables as listed above.

Based on these parameters, results as shown in Table 4.8 indicates that test result for all the independent variables were not significant except for age of respondents and source of sex education. Therefore the sexual behaviour (ever had sexual intercourse) of respondents was not associated with any of these variables. However respondent's sexual behaviour (sexual intercourse) was largely dependent on age and source of sex education. This is because the test results of respondents' age and source of sex education presented probability values of 0.03 and 0.00 respectively.

4.10 Association between sexual initiation and other major variable

Table 4. 9: Bivariate association between adolescents' sexual initiation and major variables

Variable		Have you ever had sexual Intercourse?				
		No		Yes		
		Count	%	Count	%	X^2 (p-value)
Main source of sex education	Family	45	47.9	49	52.1	43.01 (0.00)
	Teachers	75	55.1	61	44.9	
	Friends/Peers	21	17.4	100	82.6	
	Peer educators	15	51.7	14	48.3	
	Social/mass media	18	48.6	19	51.4	
Parents who talk about sexual issues	Both parents	33	44.0	42	56.0	10.94 (0.01)
	Mother only	56	56.0	44	44.0	
	Father only	5	27.8	13	72.2	
	Guardian	7	25.9	20	74.1	
Abstinence from sex because of the sex education from parents	No	93	98.9	1	1.1	0.53 (0.47)
	Yes	78	97.5	2	2.5	
Social media influence on sex	No	123	45.1	150	54.9	3.45 (0.06)
	Yes	54	35.8	97	64.2	
Menstrual cycle knowledge and pregnancy	Low knowledge	133	42.1	183	57.9	0.06 (0.81)
	High knowledge	44	40.7	64	59.3	
Normal to experience sexual urges.	No	29	44.6	36	55.4	0.26 (0.56)
	Yes	148	41.2	211	58.8	
Acquisition of STI's and HIV	Having sex without condom	150	42.4	204	57.6	0.35 (0.56)
	Do not know	27	38.6	43	61.4	
Regular condom use and HIV reduction	No	45	44.6	56	55.4	0.43 (0.51)
	Yes	132	40.9	191	59.1	

- **Association between sexual initiation and parent-child communication**

In Table 4.9, the survey sought to find out which category of parents educated their wards on sexual issues. 44% of the respondents who lived with both biological parents indicated their parents did not educate them on sex. Similarly 56% of respondents who lived with both parents reported that their parents educated them on sex. For respondents who lived with their mothers only, 56 of them representing 56% indicated their mothers did not educate them on sex; 44 (44%) respondents who also lived with their mothers only maintained their mothers educated them on sex. Only 5 respondents who lived with their fathers only mentioned their fathers did not educate them on sex; the other 13 (72.2%) stated that their fathers educate them on sex.

The study further probed into whether sex education provided by parents could make adolescents abstain from sex; it was seen from the Table that 54% of respondents reported being talked to by parents could not make them abstain while 46% stated that sex education from parents could make them abstain.

As seen in Table 4.9, 98.9% of those who stated parent's education on sex could not make them abstain did not have sex while only 1.1% said they had sex. For the 46% who held that education from parents could make them abstain, 97.5% of them never had sex whiles the remaining 2.5% reported they had had sex.

- **Association between sexual initiation and sources of sex information**

Five parameters namely family, teachers, friends/peers, peer educators and social/mass media were outlined for respondents to indicate which amongst them their main source of sex

education was. The result obtained was compared with sexual status of respondents to further establish the composition of respondents who were identified with each category.

Results from the Table shows that 94 (22.5%) respondents indicated they received more sex education from their family while 136 (32.6%) of respondents indicated they received sex education from their teachers. Further, 121 (29%) respondents indicated they were mostly educated on sex by their friends/ peers. Also 29 (6.9%) respondents indicated they got educated on sex by peer educators and lastly 37 (8.8%) adolescents of the respondents stated they were educated on sex through the mass media which includes all the social media platforms.

Notwithstanding the computations done above, it was essential to match up the data collected with regard to the medium of sex education and the sexual history of respondents. This further established the number of respondents who abstained from sex or vice versa for each source of education.

Table 4.9 illustrates the chi square results of comparing source of sex education to adolescents' sexual behaviour. For instance out of the 94 respondents who stated they received sex education from their family; 49 (52.1%) respondents responded they have had sex with the other 45 (47.9%) adolescents indicating they abstained. Likewise, 61 (44.9%) respondents out of the 136 who stated they received sex education from teachers reported they have had sex while 75 (55.1%) respondents abstained from sex. For those who indicated their friends as the main source of sex education; 82.6% of them reported they have had sex with the remaining 17.4% indicating they have not had sex.

For peer educators and social media 48.3% and 51.4% had sex while 51.7% and 48.6% abstained from sex for each category respectively. Judging from these figures, it is conclusive to state that teachers and peer educators were found to be better sex educators as majority of respondents educated by these groups abstained from sex with 55.1% and 51.7 recorded respectively.

Also the evidence suggest that new strategies ought to be adopted in educating adolescents on sex as the percentages of respondents who abstained from sex for each of the categories mentioned were not encouraging.

- **Association between sexual initiation and social media influence**

All 424 respondents stated they had access to social media information and indeed have accessed social media platforms for information on sex; 177 (41.7%) of respondents indicated they did not have sex, whereas 247 (58.3%) respondents indicated they have had sex. Hence access to social media was found to be a potential influence on adolescent to have sex as evidently shown in Table 4.9.

Though the survey results indicated that social media influenced adolescents to have sex, majority of respondents believed that features of social media did not lead them to engage sexual intercourse. When respondents were asked whether features of social media influenced them to have sex, 273 (35.6%) respondents answered NO to features of social media serving as an influence on them to have sex. Also 151 respondents representing 35.6% stated they could be influenced by social media platforms to have sex. Out of the 273 who maintain they would not be persuaded by features of social media to have sex; 151 of them have had sex representing 54.9% whereas 123 abstained from sex representing 45.1%.

More so out of the 151 who believed social media features could influence their sex behaviour, 54 abstained from sex representing 35.8% whiles 97 had sex representing 64.2%.

- **Knowledge on sex related issues and adolescents sexual initiation**

The knowledge of respondents was tested on the result of a girl having sex during her menstrual cycle; the survey showed an overwhelming number of respondents did not know when a girl was likely to get pregnant if she should have sex. In fact, 316 out of the 424 adolescent respondents did not know the effects of having sex while within the menstrual cycle. In the same vein, 108 respondents representing 25.5% of the study population were highly knowledgeable of the effects of having sex. Out of the 316 respondents who did not have any knowledge; 183 representing 57.9% had sex while 133 respondents representing 42.1% abstained from sex. For those that were highly knowledgeable of the effect; 64 had sex representing 59.3% whiles 44 abstained representing 40.7%. This means that even the group that appeared to be knowledgeable stood the risk of becoming pregnant because regardless of their knowledge they still engaged in sex.

On the question of how STI's and HIV are contracted, 81.3% of respondents indicated they were contracted through sex without the use of condoms and 18.7% stated they did not know how these infections were contracted.

For respondents with the opinion that no condom use leads to contracting infection, 204 (57.6%) of them had sex with 150 (42.4%) having abstained. With regard to respondents who had no idea how STI's and AIDS are contracted, 43 (61.4%) have had sex with 27 (38.6%) abstaining from sex.

- **Association between sexual initiation, age and sources of sexual information**

Table 4.10 shows the association between sexual experience (ever had sex), age and sources of sexual information of respondents. Logistic regression was used to estimate the strength of the two independent variables, that is, age of adolescents and the sources of sex information on the two dichotomous outcome variables of 'yes or no to ever had sexual intercourse'.

The variables, age and sources of sex education is a significant predictor of whether an adolescent will have sexual intercourse. The full model was statistically significant. x^2=50.33, p < .01 indicating the model was able to distinguish between those who had sexual intercourse and those who did not have sexual intercourse.

4.11 Logistic Regression Results

The total model explained between 11.4% (Cox & Snell R Square) and 15.3% (Nagelkerke R Square) of the variance in sex status and correctly classified 64.3% of cases. Both independent variables (age and source of sex information) made a statistically significant contribution to the model (see Table 4.9) with the strongest predictor of having sexual intercourse was source of sex information which was friends/peers, which had an odds ratio of 4.80. This indicated that adolescents who received sex information from friends/peers were 4.80 times more likely to have sexual intercourse than adolescents who did not receive sex information from friends/peers.

Finally age had an odds ratio of 1.15 which indicates that for every additional years of an adolescent, they were 1.15 times more likely to have sexual intercourse (Table 4:10).

Table 4. 10: Logistic Regression Predicting Sexual Intercourse

Variable	*B*	*SE*	*OR*	*95% CI*	*Wald Statistic*	*P*
Age	0.143	0.072	1.153	1.000, 1.329	3.866	0.049
Sources of sex information (Social media)					37.980	0.000
Source of sex information (Family)	0.151	0.395	1.163	0.536, 2.522	0.146	0.703
Source of sex information (Teachers)	-0.191	0.375	0.826	0.396, 1.722	0.275	0.610
Source of sex information (Friends/Peers)	1.569	0.411	4.800	2.146, 10.733	14.593	0.000
Source of sex information (Peer Educators)	-0.073	0.499	0.930	0.349, 2.475	0.021	0.884

CHAPTER FIVE

5.0 DISCUSSION

5.1 Introduction

This study primarily sought to examine in-school adolescents' state of sexual behaviour in the Tamale Metropolis. Specifically, the study examined the sexual status of adolescents and identified issues that influenced their decision to have or abstain from early sexual intercourse such as to identify the sources from which adolescents obtained sexual information. It was also to determine the association between parent-child communication and sexual behaviour; identify the influence of social media on adolescents' sexual behaviour; and finally ascertain the reasons for abstaining from sexual intercourse by adolescents who have not yet initiated sexual intercourse.

The study was motivated by the apparent inadequate communication of sex education to adolescents which is been seen as the root cause of adolescents' lack of knowledge of sexual and reproductive health issues. This chapter therefore discusses the findings in the light of the above objectives.

5.2 Discussion of findings

5.2.1 Adolescents' sexual initiation

Globally, the period of adolescence generate considerable anxiety among parents and the society at large because of the challenges and risks that adolescents and young people face as they experience sexual maturation.

Findings from this study showed that by age 14, (23%) in-school adolescents have had their first sexual engagement with about 34% having had their first sex by age 19. This study's finding corroborates studies that found that sexual intercourse before age 20 was common among unmarried African adolescents (Adegoke et al, 2011; Ghana Demographic and Health Survey, 2008).

Again in Ghana, the common knowledge is that religion is known to promote chastity. Aside this it is also believed that sexual delay or abstinence among adolescents could be linked with the type of school one attends such as single sex school or having parents with high socio-economic status.

However, findings from this study indicated that irrespective of adolescents' religion, parents' economic status and type of school adolescents attended, they still had early sexual intercourse.

5.2.2 Adolescents source of sexual information

Several studies have attempted to find out whom adolescents seek information on sexual and reproductive health from and found that adolescents mostly sourced information from a variety of agents including peers or friends, the mass media, siblings, parents and school teachers (Onyeonoro et al, 2011; Bankole et al, 2007; The Alan Guttmacher Institute, 2014; Whitfield et al, 2012; Bleakley et al, 2009; Taiwo, 2012; Secor-Turner et al, 2011; Nwagwu et al, 2011). However, friends or peers were reported by some studies to be the main source of sexual information to adolescents (Onyeonoro et al, 2011; The Alan Guttmacher Institute, 2014; Whitfield et al, 2012; Bleakley et al, 2009; Taiwo, 2012; Secor-Turner et al, 2011; Nwagwu et al, 2011). This is because, adolescents reported to feel comfortable to approach

their friends (Whitfield et al, 2012). In contrast to previous studies, the current study revealed that, adolescents believed in their teachers as people who were more knowledgeable and so used them as their main source of information on sex. Further analysis indicated that the impact of friends as a source of sex information to in-school adolescents in the Tamale metropolis was negative in the sense that friends influenced their colleagues to engage in early sexual intercourse. The study also found that friends' pressured each other into having an early sexual intercourse.

The implication is that adolescents may lack in-depth knowledge and by obtaining information from friends cause in-school adolescents to become vulnerable to an early sexual intercourse. This confirms a report by Onyeonoro et al (2011) that the lack of access to credible source of sex information was linked to lack of capacity to resist sex.

Being pressured to have an early sex increased chances of ever having an early sexual intercourse and the decrease use of condoms is reported by several authors to be linked with adolescents who source for information from their friends (Onyeonoro, et al, 2011; Nwagwu et al, 2011). The implication is that sexually active adolescents are susceptible to STI's which includes HIV, gonnorrheoa, syphilis and candidiasis among many others. Apart from these diseases, the lack of protection could also be the reason why in Tamale some female adolescents got pregnant and because they were in school resorted to abortion.

5.2.3 Association between parent-child communication and adolescents' sexual initiation

Other studies have found that the greater the communication between parent and their adolescent children, the better improvement in adolescents' sexual behaviour. (Kumi-

Kyereme et al. 2007; Bastien et al, 2011; Sutton et al, 2013; Biddlecom et al, 2009; Ngom et al 2003; Huebner & Howell, 2003; Wright et al, 2006; Alhassan et al, n.d). This current study looked at the extent to which parent-child communication affected adolescents' decision to engage in an early sexual intercourse. Regardless of the expected positive influence of the family most importantly parents on adolescents' sexual behaviour, findings from this current study found some influence of sexual behaviour on in-school adolescents and parent-child communication and so living with both biological parents encouraged some sexual abstinence than living with single parents and guardians which corroborates studies mentioned above.

In as much as there is a decrease sexual behaviour among adolescents living with both biological parents, the study reports no significant influence with having to live with both biological parents and sexual abstinence. Other previous studies reported the contrast that living with both parents impact the delay of onset of sexual activity among adolescents (Biddlecom et al, 2009; Kumi-Kyereme et al, 2007; Lammers et al, 2000; Ngom et al, 2003).

5.2.4 The influence of social media on adolescents' sexual initiation

It is evident in western countries that the social media have associations with adolescents and young people's sexual behaviour (Lou, Cheng, Gao, Zuo, Emerson, & Zabin, 2012). Several factors must have accounted for that such as the influx of android mobile phones since most mobile phone users have accesses to social media. Similarly though the current study results indicated that social media influenced in-school adolescents to have sexual intercourse, majority of respondents believed social media features did not lead them to engage in sexual intercourse. Their assertion was confirmed by further analysis which showed no significant

association between in-school adolescents' sexual behaviour and exposure to social media within the Tamale Metropolis.

5.2.5 Knowledge of sex related issues and reasons adolescents gave for abstaining from an early sexual intercourse

In general it was found in this study that sex information awareness among in-school adolescents was high. Findings indicated that in-school adolescents were knowledgeable in sexual and reproductive health issues. How knowledgeable adolescents were about sex related factors could inform their decisions to engage in sexual intercourse. However, regardless of adolescents' knowledge, findings showed that adolescents still engaged in an early sex. Similarly, a previous study found that only a few young people received adequate preparation for their sexual lives as there continued to be limited opportunities for communication about sex outside of the peer educational setting and poor adult role models of sexual relationships (Campbell & MacPhail, 2002). Findings from this current study also showed that adolescents do not know when in a girl's menstrual cycle she is likely to get pregnant should she have sex.

Early sexual intercourse leads to a number of negative reproductive health outcomes. (Bankole et al, 2009; United Nations Educational, Scientific and Cultural Organisation, UNESCO, 2009). With regards to this report, the current study further attempted to find reasons why adolescents who reported they never had sex give for abstinence. Reasons why adolescents abstain from an early sexual intercourse were found to be ranked in the following order; not feeling ready to have sex, being afraid of one's parents, not having had the

opportunity to engage in sex, afraid of acquiring HIV/ AIDS, afraid of getting pregnant and the thought that sex before marriage is wrong.

Consistent with the current study, a greater number of the respondents acknowledged a decision to wait until marriage to engage in sexual intercourse. This finding was in agreement with some studies that found more female adolescents were more likely than their male counterparts to wait until marriage among Burkinabé, Ugandan and Ghanaian adolescents (Kabiru & Ezeh, 2007).

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATION

6.1 Introduction

This study sought to examine in-school adolescents' sexual behaviour. This was achieved through the identification of the sources of sex information, influence of parent-child communication on sexual behaviour, the influence of social media on sexual behaviour and the reasons given by adolescents for abstaining from early sexual intercourse.

6.2 Conclusion

Early sexual intercourse continues to increase considerably among adolescents even before they complete Senior High School. They do this irrespective of their religion, parents' economic status and type of school they attend. In-school adolescents are found to obtain sexual information mainly from their teachers because they believe that their teachers are more knowledgeable. Following teachers on the source of information are friends. However, the study found that friends showed negative impact by influencing their colleagues to engage in an early sexual intercourse. Friends were also found to pressure each other into having an early sexual intercourse.

Findings of the study indicated that in-school adolescents were knowledgeable in sexual and reproductive health issues and how knowledgeable adolescents were about sex related factors could inform their decision to engage in sexual intercourse. However, regardless of adolescents' knowledge, they still engaged in an early sex.

It is in this light that this study suggests to parents, guardians, teachers, religious leaders, family members, health providers and policy makers to come up with the most appropriate

means of providing quality information on sexual and reproductive health to enable adolescents make good, informed and responsible decisions.

6.3 Recommendations

On the basis of the evidence derived from the study and conclusions drawn, the following recommendations were made:

1. Findings from the study showed that adolescents in Senior High Schools in the Tamale Metropolis' main source of information on sex was through teachers, however, the number of students that obtained information from teachers was woefully inadequate. It is therefore recommended that teachers should intensify sex education so that it can make the desired impact on the lives of adolescents in Senior High Schools since adolescents see them to be knowledgeable.
2. For an effective sexual and reproductive health education programmes to be effective by the Ghana Health Service, it is recommended that they collaborate with the Ministry of Education to convey adequate and quality information to adolescents and young people before they become sexually active and exposed to reproductive health risks.
3. It is also recommended that programmes of intervention should be organized for parents on how to improve on their sexual communication with their children.

6.4 Limitation

Because the sample was picked only from the Tamale metropolitan area, looking at the geographical location and cultural differences, the population findings may not be representative of the sexual behaviours of all in-school adolescents in Ghana.

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APPENDICES

Appendix I: Sample size of selected schools.

Name of school	Population	Sample	Sample for the classes		
			Form1	Form2	Form 3
Business Senior High School	1,837	1837*424/5864 = 133	43	50	40
Ghana Senior High School	2,154	2154*424/5864 = 156	55	55	46
St. Charles Senior High School	739	739*424/5864 = 53	18	18	17
Tamale Girls Senior High School	1,134	1134*424/5864 = 82	29	31	22
Total	**5,864**	**424**	**145**	**154**	**125**

Appendix II: Informed Consent for Participation

INFORMED CONSENT

PARENT PERMISSION LETTER

Dear Parent or Guardian,

I am conducting a research study entitled "Sexual Behaviour among adolescents in Senior High Schools within the Tamale Metropolis. I am a master's student of the School of Public Health, University of Ghana.

The study is to enable me fulfill the requirement necessary for the award of masters of public health degree.

Findings from the study will provide health policy makers with the needed information to formulate policies to improve adolescent health needs, most especially of their sexual health needs. The study will also inform adolescents on the availability of the website (www.adhdghana.org) and the Facebook page (Ghana National Adolescent Health and Development Programme).

With the permission of the Ghana Education office of the Tamale Metropolitan area, I am requesting that you allow your students to participate in the study.

The consent of the adolescents themselves will be obtained and Students (Participants) will be asked to fill the questionnaire after being briefed on the questions and its foreseeable risks in participating in the study.

The participants will also complete a brief survey (consent form) asking them to voluntary participate.

The total time to participate in the study will be about twenty to thirty minutes.

No names will be used in filling out the study's forms and as such all responses will be anonymous. No one at the school will have access to any of the information collected.

Final reports will be kept at the University of Ghana in a locked file cabinet accessible only to the researchers.

Participation in the study is entirely voluntary and there will be no penalty for not participating. All students for whom we have parent/guardian's consent will be asked if they wish to participate and only those who agree will complete the forms. Moreover, participants will be free to stop taking part in the study at any time.

Please give your permission by signing the enclosed consent form and having your students fill the questionnaire for me.

Thank you.

Sincerely,

Rosemary Ivy Emefa Attibu

Consent to Participate

I have read the attached informed consent letter and agree to have my students participate in the study entitled Sexual behaviour among adolescents in Senior High Schools within the Tamale Metropolitan area.

Parent's or Guardian's Name:

_____

Parent's or Guardian's Signature: Date:

_____

Parent's or Guardian's Mobile Number:

_____

SHORT ASSENT FORM FOR ADOLESCENTS & YOUNG PEOPLE (AGES 10-24)

You are being invited to participate in a research study title: "Adolescents sexual behaviour among Senior High School Students within the Tamale Metropolitan area".

I am conducting this study to learn more about the issues concerning adolescents' sexual behaviour and to come up with findings which will enable policy makers develop appropriate interventions to meet your sexual need as adolescents.

If you agree to be in this study, you will be required to fill a questionnaire.

While I make every effort to keep your information private, there are two things we cannot keep private. If we become aware of abuse, or neglect, to you or any other child, we must report it to child protective services because this is required by the law.

You do not have to be in the study, and you can stop if you do not want to do it, at any time.

Child's Assent

I have been told about the study and know why it is being done and what I will be asked to do.

I also know that I do not have to do it if I do not want to. If I have questions, I can ask the researcher or the research assistant. I can also stop at any time.

My parents/guardians know that I am being asked to be in this study.

NOTE: PLEASE SIGN THE NEXT PAGE IF YOU AGREE TO BE IN THIS STUDY.

SIGN BELOW TO PARTICIPATE IN THIS STUDY.

_____ _____

Adolescent's Signature **Date**

List of Individuals Authorized to Obtain Assent

Name **Title** **Mobile Phone #**

Appendix III: Questionnaire

QUESTIONNAIRE FOR HIGH SCHOOL STUDENTS (10-24 YEARS)

SCHOOL OF PUBLIC HEALTH, COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA

Dissertation Title: Sexual Behaviour among adolescents in Senior High Schools within the Tamale Metropolitan area, Northern region of Ghana.

Respondent's ID: ☐☐☐☐ Date of Interview: (dd/mm/yy) _____/_____/_____ Serial number: ……	Name of Graduate Student: _____ Name of Supervisor: - _____

(Please for each of the question/statement tick [√] the number that matches your view or where appropriate write the answer)

SECTION A: DEMOGRAPHIC DATA ON ADOLESCENTS AND THEIR FAMILY

NO	QUESTION	CODING CATEGORY
A1	Gender	Male 1 Female 0
A2	Age (as at the last birth day)	☐☐
A3	Religion	Christian 0 Muslim 1 Other 2
A4	Type of school attended	Single sex school 0 Mixed sex school 1
A5	Current year in school	Year one 0

		Year two	1
		Year three	2
A6	Educational Background of mother	JHS	0
		SHS	1
		Tertiary	2
A62	Educational Background of father	JHS	0
		SHS	1
		Tertiary	2
A7	Employment status of mother	Employed	1
		Unemployed	0
A7	Employment status of father	Employed	1
		Unemployed	0

SECTION B: SEXUAL STATUS

NO.	QUESTION	CODING CATEGORY	
B1	Have you ever been in a relationship with the opposite sex?	Yes	1
		No	0
B2	Have you ever had sexual intercourse? *(If NO please skip to B23)*	Yes	1
		No	0
B3	If Yes, what was your **age** when you first had sexual intercourse?	Please indicate the exact age	☐☐
B4	Do you currently have a sexual partner *(boyfriend/girlfriend)*?	Yes	1
		No	0
B5	Within the last 3 months, how many sexual partners *(boyfriend/girlfriend)* have you had?		☐☐
B6	How will you describe your first sexual relation	Own will	0
		Coaxed	1
		Forced	2
B7	Do you feel any pressure from others to have sexual intercourse?	Yes No	1 0
	If Yes, mention the main group of person from whom you	Friends	1

B8	feel most pressured?	Relatives 2 Work colleagues 3 Partner/special friend 4 Other _____ 5
B9	Have you ever had sexual intercourse in exchange for cash or gift?	Yes 1 No 0
	Contraceptive Use	
B10	The first time you had sexual intercourse, did you use a condom?	Yes 1 No 0
B11	If NO to the above, did you use any of the following contraceptive methods?	**Family planning methods** Diaphragm 0 Emergency CP 1 Injectable 2 Foam/Jelly 3 Implants 4 IUDs 5 None of the above 6 Other (Specify) 7
B12	Did you use a contraceptive method while having sexual intercourse after the first initiation?	Yes 1 No 0
B14	Are you currently doing something or using any method to delay or avoid getting pregnant?	Yes 1 No 0
B15	If yes, which contraceptive method are you using?	……
B16	Where do you get this contraceptive? *(that is, the item mentioned in B15)*	Pharmacy /Drug store 0 Hospital/ clinic 1 Family planning 2 Field worker 3 Other (specify)…… 4
B18	For how long would you like to delay getting pregnant? (Please state the exact month or number of years)	Months ……☐☐ Years ……☐☐

		Don't know……☐☐
B19	Have you ever been pregnant OR made someone pregnant?	Yes ……1 No ……..0
B20	If yes, how many times?	☐☐
B21	How old were you when you first became pregnant or made someone pregnant?	(Age in completed years) ☐☐
B22	What happened to the first pregnancy?	Resulted in a live birth……..……0 a miscarriage……..…...1 an abortion……..2

SECTION C: SEX EDUCATION AND INFORMATION SOURCES

C1	Have you ever received information on sex?	Yes 1 No 0
C2	If YES, Who was the main source of sex education?	Family(Parents) 0 Guardian 1 Siblings 2 Teachers 3 Friends/Peers 4 Peer educators 5 Social/mass media 6 Other (State …… 7
C3	Why do you source information on sex from the above mentioned?	Feel comfortable with 0 Knowledgeable 1 Readily available 2 Other (please state)……..…3
C4	How often do you get to be talked to on sexual issues (Very often= twice or more in a month Occasionally= once in a month Rarely=once in a two or in more months)	Very often 0 Occasionally 1 Rarely 2

C5	Do you get satisfied with the information received?	Yes 1 No 0
C6	Do you have any other information you want it discussed but do not get educated on?	Yes 1 No 0
C7	Which aspect of sex education do you lack and will need help?	Sexual issues 0 STIs/ HIV 1 Family planning 2 Marriage 3 Other (Please specify)…..……. …. 4

SECTION D: PARENT-CHILD COMMUNICATION AND SEXUAL BEHAVIOUR

D1	Who do you live with?	Both Biological Parents 1 Biological mother only 2 Biological Father only 3 Guardian 4 Siblings 5 Other (State …….... 6
D1B	Does your parents talk to you about sexual issues	Yes 1 No 0
D2	If Yes who among your parents talk to you about sexual issues	Both parents 1 Mother only 2 Father only 3 Guardian 4 Other (State)……5
D3	How often does your parents educate you on sexual issues? Note (Very often= twice or more in a month Occasionally= once in a month Rarely=once in a two or in more months)	Very often 0 Occasionally 1 Rarely 2

D3	Do you think you are able to abstain from sex as a result of the sex education received from your parents?	Yes 1 No 0
D4	If Never received health information from parents, please give three reasons why your parents do not educate you on sexual issues	1…… 2…… 3……
D5	If Yes, what is the content of the sex education received?	Sexual issues 0 STI's/ HIV 1 Family Planning 2 Marriage 3
D6	I am able to approach my parents with personal issues regarding sex?	Yes 1 No 0
D7	If Yes, why are you able to approach your parents with issues about sex	Give reasons 1……..…….. 2. ……. 3 …….
D8	If No, why are you not able to approach your parents with issues regarding sex	Give reasons 1……... 2…… 3 …….

SECTION E: SOCIAL MEDIA AND SEXUAL BEHAVIOUR

E1	Do you follow any social media on sexual issues?	Yes 1 No 0
E2	Are there social media where you access information?	Yes 1 No 0
E3	Which of the following social media do you access most	Please rank them from 1-9 in the order of the most importance **Type of social media** — **Order of rank** Youtube Facebook WhatsApp Twitter Instagram Viber Tango Skype Flicker Others (Specify and rank)
E4	How often do you access the various social media mentioned above?	Very often 1 Occasional 2
E5	Do social media features/function encourage you to engage in sexual intercourse?	Yes 1 No 0
E6	What are some of the features/function which influences your desire to have sex	Please list 1…… 2…….. 3……..
E6b	Please state any mass media from which its use encourages you to have sex (Such as Television, Radio, Magazines etc)	Please state
E7	Do you know of the website (www.adhdghana.org) where health promotion on sexual issues can be assessed?	Yes 1 No 0

E8	Do you know about the Facebook page of the Ghana National Adolescent Health and Development Program?	Yes No	1 0
E8b	Do you know of any Youth Club where you can visit to access health care?	Yes No	1 0

SECTION F: KNOWLEDGE ON SEX RELATED FACTORS AND REASONS FOR ABSTINENCE

F1	The period of adolescent is characterized by physical growth and emotional change.	Yes 1 No 0
F2	It is normal to experience sexual urges.	Yes 1 No 0
F3	When in a girl's menstrual cycle is she likely to get pregnant if she should have sexual intercourse?	A week before menstruation 1 During menstruation 2 Two weeks after menstruation 3 One week after menstruation 4 Do not know 5
F4	What are the risks associated with early sexual intercourse in adolescents?	Please rank them from 1-6 in the order of the most importance Risk | Order of rank Unwanted pregnancy Loss of virginity STI's and HIV School drop outs Infertility arising from abortion Stigmatization
F5	Would you want to abstain from sexual intercourse if you had already had your first sexual intercourse until you reach adulthood?	Yes 1 No 0
F6	If Yes, why would you want to abstain?	Please rank them in ascending order Reason for abstinence | Order of rank Unwanted pregnancy To prevent STI's/HIV Fear of dropping out of School In order not to be stigmatized To wait until marriage Because of religious affiliation

		Other (Please specify)
F7	How is STI's and HIV acquired?	Having sexual intercourse without condom 1 Do not know 2
F8	Can the risk of HIV transmission be reduced by having sex with only one uninfected partner who has no other partners?	Yes 1 No 0
F9	Can a person reduce the risk of getting HIV by using a condom every time they have sex?	Yes 1 No 0
F10	Can a healthy looking person have HIV?	Yes 1 No 0

SEXUAL STATUS: THIS PAGE IS ONLY FOR THOSE WHO HAVE NEVER EXPERIENCED SEXUAL INTERCOURSE

B23	People may have mixed reasons for not having sexual intercourse. Please tell me from the following reasons why you abstain from sex (**Please rank them from 1 to 6)**	Please rank them from 1-6 in the order of the most important reason why you abstain from sex
	(a) I don't feel ready to have sex	
	(b) I have not had the opportunity	
	(c) I think that sex before marriage is wrong	
	(d) I am afraid of getting pregnant	
	(e) I am afraid of getting HIV/AIDS	
	(g) I am afraid of my parents	
B24	And now I have questions about your future plans with regards to sexual intercourse. Which of these statements best describes your plans? (a) I plan to wait until marriage (b) I plan to wait until I am engaged to be married (c) I plan to wait until I find someone I love (d) I plan to have sexual intercourse when an opportunity comes along (e) I plan to complete my education (f) I plan to finish my vocational training	Please circle or think among the following which BEST describes your future plans a) Marriage 1 (b) Engagement 2 (c) Love 3 (d)Opportunity 4 (e)Finish School 5 (f) Finish Voc. Training 6
B25	Do you feel any pressure from others to have sexual intercourse? IF YES, a great deal or a little?	None 1 A little 2 A great deal 3
B26	From whom do you feel the pressure?	Friends 1 Relatives 2 Partner/special friend 3 Other _____ 4
B27	Any general comments? Please continue from Section C	

Thank you very much for your time and participation.