ENSIGN COLLEGE OF PUBLIC HEALTH, KPONG,

EASTERN REGION, GHANA

FACULTY OF PUBLIC HEALTH

DEPARTMENT OF COMMUNITY HEALTH

FACTORS INFLUENCING TEENAGE PREGNANCY IN THE LOWER MANYA KROBO MUNICIPALITY- EASTERN REGION, GHANA

BY

JOHN YAO BEDZO

JUNE, 2019

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A THESIS SUBMITTED TO THE DEPARTMENT OF COMMUNITY HEALTH, FACULTY OF PUBLIC HEALTH, ENSIGN COLLEGE OF PUBLIC HEALTH IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF PUBLIC HEALTH DEGREE

JUNE, 2019

DECLARATION

I, **John Yao Bedzo**, hereby declare that apart from specific references which have been duly acknowledged, this dissertation is my own work put together under the supervision of **Dr. Stephen Manortey** and that this work has not been presented in part or whole for the award of any other degree.

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Dr. Stephen Manortey	…….....	…….
(Supervisor)	Signature	Date

Certified by:

Dr. Stephen Manortey	….……..	…….....
(Head of Academic Programme)	Signature	Date

DEDICATION

This work is dedicated to my loving wife Mrs. Naomi Akpene Bedzo, my son Francis K. Bedzo and the entire Bedzo family for their moral support during the period of struggle for this degree. Their contribution to my success is invaluable.

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You never promised that the journey will be easy but you promised that your grace and mercy will see me through. Indeed your grace and mercy have seen me through and I am grateful to you Almighty God.

I thank Ensign College of Public Health located in Kpong in the Eastern Region of Ghana for offering me the chance to pursue the MPH degree. I also want to acknowledge the efforts of all the lecturers who took me through the course. I am most grateful to my supervisor **Dr. Stephen Manortey** of Ensign College of Public Health for his encouragement, supervision, and guidance from the formulation of my research topic to the conclusion of this research project. I would not have come this far without his support and constructive ideas. I also greatly do appreciate the respondents for being cooperative and taking their time to answer the study questionnaires. It is their invaluable contribution that has made this study a success.

I most sincerely appreciate the staff of Ensign College of Public Health for the support and training I have received. They have imparted great knowledge in me.

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To everyone who helped and supported me through this course, I say God richly bless you.

DEFINITION OF TERMS

Teenager: A teenager is a person who is in the middle of adulthood and childhood and is aware of his or her surroundings as well as physical changes of the body together with his or her feelings, unlike children. According to Brooker (2006), a teenager is a young person whose age falls within the range of thirteen to nineteen (13-19). *Collins English Dictionary* (1991) defines a teenager as "a person between the ages of 13 and 19 inclusive".

Pregnancy: Pregnancy is the condition of having a developing embryo or foetus in the body after a successful conception. The average duration of pregnancy is about 280 days. Estimation of the date on which delivery should occur is based on the first day of the last menstrual period (*Taber's Cyclopedia Medical Dictionary* 2001). In this study, it refers to pregnancy occurring during the teenage period.

Conception: Conception is the union of male sperm and female ovum; fertilization (Lodewig, et al.1998).

Contraception: This is the prevention of conception by using an agent such as a condom, spermicidal pessary or cream, cervical diaphragm or intrauterine device, oral contraception or natural methods (Brooker 2006).

Sex Education: This refers to education on the subject of sexual activity and sexual relationships. It includes teaching about the male and female body so that the learner can understand expressing sexuality and recognize the onset of puberty; knowledge about personal relationships, knowledge about contraception, sexually transmitted infections, pregnancy, childbirth, bonding, parenting and family living (Brooker 2006). Sexual education programs are the process of acquiring information and forming attitudes and beliefs about sex, sexual identity,

relationships, and intimacy. In assessing the factors contributing to teenage pregnancy and addressing the complexity of the issue and comprehensive strategies needed to address the problem, various theories connected to the problem were reviewed. The selected theories were reviewed because they provide a building block for undertaking this study.

Sexuality: *Collins English Dictionary* (1991) defines sexuality as "the state or quality of being sexual; preoccupation with or involvement in sexual matters; people's sexual feelings; the feeling and activities with a person's sexual desires: male/female sexuality".

ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
BECE	Basic Education Certificate Examination
CI	Confidence Interval
GDHS	Ghana Demographic Health Survey
GHS	Ghana Health Service
GSS	Ghana Statistical Service
HIV	Human Immunodeficiency Virus
JHS	Junior High Schools
LMIC	Low-middle Income Countries
LMKM	Lower Manya Krobo Municipality
OR	Odds Ratio
SHS	Senior High Schools.
SRH	Sexual and Reproductive Health
SSA	Sub-Saharan Africa
STD	Sexually Transmitted Disease
YRHS	Youth Reproductive Health Survey
UK	United Kingdom
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nation Children's Fund
USA	United State of America
WHO	World Health Organization

ABSTRACT

Background: Teenage pregnancy is a social issue of public health importance that has received attention from many program designers, policy makers and most population researchers globally. It plaques both developed and developing countries, but it is more prevalent in developing countries, especially those in Sub-Saharan Africa. Many factors such as early marriage, peer influence, religious and cultural beliefs, teenage sexual behaviour and socioeconomic status have been linked to the prevalence of teenage pregnancy. The study, therefore, sought to investigate the factors influencing teenage pregnancy in the Lower Manya Krobo Municipality in the Eastern Region of Ghana.

Methods: Cross-sectional research design was used to show and also help in investigating associations between influential factors and the outcome of interest. Purposive sampling technique was used because it enabled the researcher to include only the respondents that were needed for the study. Data was collected using a structured questionnaire and analyzed with STATA statistical software. Descriptive statistics were used to describe the factors that influence teenage pregnancy by summarizing them into percentages and frequencies. Household Socio-Economic status was derived through a principal component analysis of basic household assets. Pearson's Chi-Square test and Logistic Regression analyses were respectively used to test and measure the strength of association between the outcome and predictor variables.

Results: Of the 223 completed questionnaires, 43.95% reported being pregnant. The findings of the study indicated that school enrollment status, parents living status, peer influence on sex activities, and influences of social media on sexual behaviour were the major factors that influence teenage pregnancy ($p<0.0001$) within the Lower Manya Krobo Municipality. Age, material status and occupation were also were statistically associated with pregnant status

($p<0.0001$). Majority of the responders (77.98%) who ever had sex before had a knowledge on contraceptives but 53.21% of them never used contraceptives.

Conclusion: Teenage pregnancy is a public health menace in the municipality. There is, therefore, the need for the establishment of more "*teenage health corners*" to cater for the health needs of the teenagers. Extensive focus on girl-child education is also an important solution to deal with the increasing prevalence of teenage pregnancy.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the study

One social issue of great public health importance which has received a lot of attention globally is the rate of teenage or adolescent pregnancy. Teenage pregnancy is a social problem in both developed and developing countries. The United States of America (USA) has abstractly defined teenage pregnancy as "every under-age girl who becomes pregnant" (Kost et al. 2014). The United Nation Children's Fund (UNICEF) defines teenage pregnancy as "a teenage girl, usually within the ages of 13 and 19 becoming pregnant" (UNICEF, 2008). United Kingdom's (UK) definition of teenage pregnancy is more specific. The UK defines teenage pregnancy as a girl who before her eighteenth (18th) birthday becomes pregnant (Tripp et al. 2005)

In Ghana, a teenager is defined as a person between the ages of 10 – 19 years (GSS, 2013). Teenage pregnancy is defined as getting pregnant at teenage or adolescent period which is between 10 and 19 years. In this study, however, teenage pregnancy will be defined as a pregnancy in teenagers who are between the ages of 10 and 19 years.

The rate of pregnancy before marriage is high in Latin America and the Caribbean and some parts of Sub-Saharan Africa (SSA) as compared to that of Asia (WHO, 2014). In Ghana, 9.2% of adolescents between ages 15 and 19 years were married and 3.2% were living with their partners though not married (GSS, 2010). Also, 5.2% of teenagers between the ages of 12 and 14 years were married according to the Ghana Statistical Service report (2010).

In the Brong Ahafo Region of Ghana, 7.8% of teenage females between ages 15 and 19 were found to be married with 3.8% between the ages of 12 and 14 years (GSS, 2010). Teenage pregnancy is also high in most high income or developed countries such as the United States

of America. *Social stigma is attached to teenage pregnancy among societies and cultures (UNFPA, 2013).*

The occurrence of teenage pregnancy has become common in most Ghanaian societies. It is seen mostly in teenagers who are in the Basic, Junior High, and Senior High schools. One (1) out of eight (8) pregnancies in Ghana happens to be a teenager (Ghana Health Service, 2009).

Statistics from the Brong-Ahafo Regional Girl Child Education Network has revealed that in 2016/2017 academic year, the region recorded 778 pregnancies, 144 in the Primary School, 573 in Junior High and 91 in Senior High Schools.

There was a record of 572 teenage pregnancy in the Shama District of the Western Region and a reported mass failure of female candidates who sat for the BECE (Basic Education Certificate Examination) in that area (Selby, 2012). In the Manya Krobo Municipality in the Eastern Region of Ghana, more than thirty-three (33) female students were not able to sit for their BECE due to pregnancy (Selby, 2012). In the Sunyani West District of the Brong Ahafo Region, 259 teenage pregnancies were recorded between January to June 2014 (VibeGhana, 2014).

There was a great need for conducting this study in order to inform the public about the problem within the communities and the implementation effort to reduce teenage pregnancy at both national and local levels. The gathered information may be used for planning and designing interventions towards minimizing the extent of the problem.

1.2 Problem Statement

Burns and Grove (2005) define a research problem as "a situation in need of a solution, improvement or alteration, a discrepancy between the way things are and the way they ought to be".

Teenage pregnancy is a social problem which is also of public health importance globally and Ghana is no exception. Its associated consequences in socioeconomic development have been increasing over time in most developing countries, irrespective of the tremendous measures set in place by governments and other stakeholders to reduce it.

According to the WHO, "about 16 million teenage girls of the ages 15 and 19 years give birth each year." The babies born to these teenagers constitute approximately 11% of births worldwide. Out of this, 95% occur in developing countries or low-middle income countries (WHO, 2011). It is also stated that 50% of the proportion of births in adolescents occur in SSA whilst that of Latin America including the Caribbean, and China constitutes 18% and 2% respectively. The WHO stipulated that 10% of girls in low-middle income countries (LMIC) become mothers before age 16 years with the highest rate occurring in south-central and south-eastern Asia and Sub-Saharan Africa (WHO, 2011).

In Ghana, as high as 16.2% of teenage girls give birth by age 18years with the birth rate of 69.7 per 100,000 from 2006 to 2010 (UNICEF, 2013). A report by VibeGhana.com (2014) stated that 750,000 teenagers between the ages of 15 and 19 years get pregnant every year (Vibe, Ghana, 2014).

In the Lower Manya Krobo Municipality, 551 teenage pregnancy were recorded out of the 3,503 pregnancy in the year 2017 representing 15.7%. In the year 2016, 584 teenage pregnancy out of the total 3,583 pregnancy (16.3%) recorded in the Municipality, even though there was decrease

over the years, it was statistically insignificant as compared to the decrease reported in the Yilo Municipality. The total number of pregnancy recorded in the Eastern Region for the year 2017 was 84,281. Out of this figure, teenage girls who were pregnant constituted 11,639 representing 13.8%, which is even less than that of Lower Manya Krobo in terms of the proportion to the total female teenager populations in the area under consideration. One out of every six births that occur in the Municipality is from teenage mother. (Lower Manya Krobo Municipal Health Directorate, 2017). Despite some studies have been done on exploring the topic nationwide, the findings on the causes of teenage pregnancy are not the same since they differ from one another. Moreover having no study that has been undertaken to assess the factors responsible for teenage pregnancy in Lower Manya Krobo Municipality calls for further study to investigate the status and causes of the problem so to provide the desired information to take appropriate and effective measures to solve it.

1.3 Rationale of the Study

Teenage pregnancy has a health toll both on the mother and the yet-to-be-born child. The most worrying aspects of it is the rate at which it occurs and the fact that it occurs amongst both girls at and out of school.

This study aims to evaluate factors influencing the rate of reported teenage pregnancies in the Lower Manya Krobo Municipality in the Eastern Region of Ghana. The findings will help inform policy makers to further set in place measures to mitigate its adverse effects.

1.4 Conceptual framework for the study

A conceptual framework is a model of presentation where a researcher represents relationships between variables in the study and shows the relationship graphically or diagrammatically (Orodho, 2004). The model figure 1.0 below gives an overview of some of the factors that may contribute to teenage pregnancy in the municipality and provides a framework within which the study will be conducted.

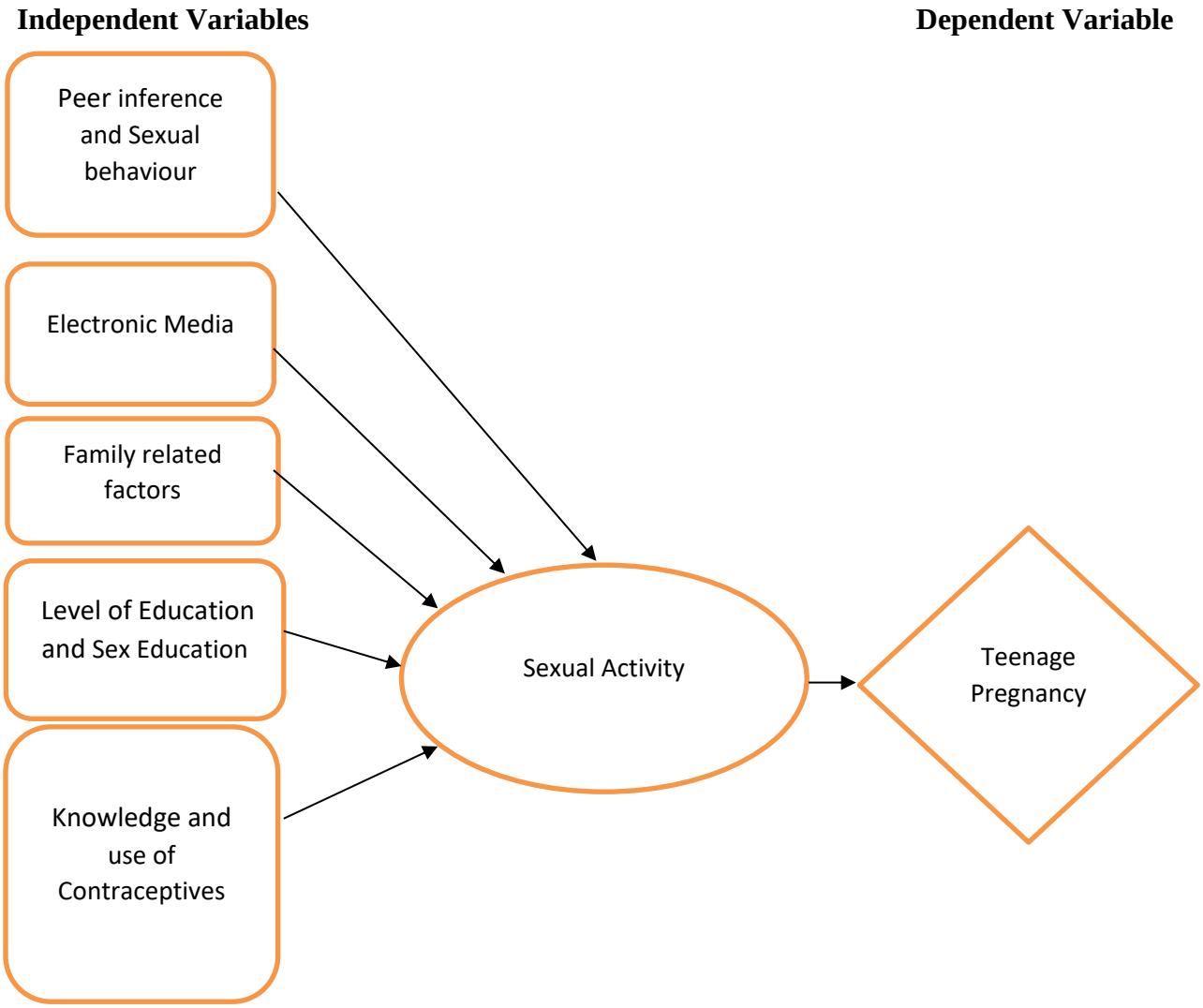

Figure. 1.0: Conceptual Framework

Source: *Author's Own Construct*

1.5 Research Questions

1. How do peer influence and sexual behaviour contribute to teenage pregnancy?
2. Do electronic media and poverty contribute to teenage pregnancy?
3. How does the level of education and sex education contribute to teenage pregnancy?
4. Can knowledge and use of contraceptives contribute to teenage pregnancy?

1.6 General Objective

The primary objective of this study is to assess factors contributing to teenage pregnancy in the Lower Manya Krobo Municipality in the Eastern Region of Ghana.

1.7 Specific Objectives

1. To determine the prevalence of teenage pregnancy in the municipality.
2. To determine the effect of peer inference and sexual behavior on teenage pregnancy.
3. To determine the influence of electronic media and poverty on teenage pregnancy.
4. To determine the effect of education and sex education on teenage pregnancy.
5. To assess the association of knowledge and use of contraceptives on teenage pregnancy.

1.8 Profile of the Study Area

The study was conducted in the Lower Manya Krobo Municipal. The Municipal forms part of the twenty-six (26) Municipalities and Districts in the Eastern Region of Ghana. It lies between latitude 6.05^0S and 6.30^0N and longitude 0.08^0E and 0.20^0W. The administrative capital of the municipality is Odumase-Krobo. The Municipality covers an area of 1,476 km^2, constituting

about 8.1% of the total land area within the Region (18,310 km^2). The Lower Manya Krobo Municipal is divided into six sub-Municipalities namely; Akuse, Odumase, Kpong, Agormanya, Asitey, and Oborpa. The Municipality is blessed with three major hospitals and other smaller health facilities. The Municipality shares boundaries with Upper Manya Krobo District to the north, to the south and west Dangme West District and Yilo Krobo Municipality respectively and finally to the east with Asuogyaman District (Lower Many Krobo Municipal Health Directorate, 2017 *Annual Report*).

1.9 Scope of Study

The study basically targeted only teenagers who were between the ages of 10 to 19 years and located in Odumase the capital town of the Municipality and its surrounding towns such Kpong, Nuaso, Atua, Agormenya, Asitey, Akuse, and Kpongunor

1.10 Organization of the study

The study is organized into six chapters. Chapter one contains the background to the study, statement of the problem, the rationale for the study, conceptual framework, research questions, the objectives, the profile of the study area, the scope of the study and organizational of the study. Chapter two reviews relevant literature related to the study, Chapter three describes the study design, target population, sampling procedure, sample size, the research instrument used, data and sources, data processing and analysis, the ethical issues arising from the research and limitations of the study. Chapter four concerns itself with data analysis, and presentation, chapter five discusses the results of the study while chapter six provides the conclusions and recommendations of the study.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1.0 Introduction

This chapter seeks to review available and relevant literature that informs the study, discusses the teenage pregnancy and assess factors that contribute to this menace in the Lower Manya Krobo Municipality. The literature review on factors contributing to teenage pregnancy assisted the researcher to formulate appropriate research objectives and gain further insight into the factors contributing to teenage pregnancy. The review of literature revealed the following significant issues related to the research topic "factors contributing to teenage pregnancy".

2.2.0 Rates and Trends of Teenage pregnancy

2.2.1 Worldwide

According to the WHO (2011), "about 16 million teenage girls of the ages 15 and 19 years give birth each year." The babies born to these teenagers constitute approximately 11% of births worldwide. Out of this, 95% occur in developing countries or low-middle income countries (WHO, 2011). However, in developed countries such as the Netherlands' teenage birth rate is decreasing, and stands at 4.5 per 1,000 births. In 2015, 1,574 teenage girls gave birth: almost 80% of all teen mothers were 18 years old, and 8% were below the age of 16 (CBS, 2016).

2.2.2 Africa

The UNFPA in "The State of World Population Report 2013" stated that West and Central Africa account for the highest percentage (6%) of reported births before age 15 years among developing countries. There has been variation in the birth rate of teenage girls between the ages of 15 and 19 years in Sub-Saharan Africa in recent years. The variation ranges from 37 births per

1000 girls in Mauritius to 229 births per 1000 girls in Guinea. The country of Niger tops the list at 203.604 births per 100,000 teenage women.

Going on down the line following Niger are Mali(175.4438), Angola (166.6028), Mozambique (142.5334), Guinea (141.6722), Chad (137.173), Malawi (136.972), and Coted' Ivoire (135.464) WHO (2008). Teenage births in the low and middle-income countries are twice higher compared to that of more developed countries (WHO/MPS NOTES, 2008).

2.2.3 Ghana – Eastern Region

The rates of teenage pregnancy in Ghana are high; of all births registered in the country in 2014, 30 percent were by teenagers, and 14 percent of teenagers aged between 15 and 19 years had begun childbearing.

In Ghana, as much as 12% of teenage girls between the ages of 15 and 19 have had a child. It is estimated that 1 out of every 10 births occur among teenage girls in Ghana (Awusabo-Asare & Abane, 2004). In the Brong Ahafo region, 21.3% of teenagers have begun childbearing, of which 17.5% have had a live birth and 3.8% are pregnant. The pregnancy rate for teenagers who have no education and have begun childbearing was 23.2% whilst that of those with secondary education was 6.2% (GSS, 2014) Ghana Health Service (GHS) and ICF Macro (2014) figures show that a total of 25,285 teenage girls got pregnant in the Eastern Region over the past two years. Six hundred and sixty-nine (669) of these teenage mothers were aged between 10 and 14 years. A Senior Midwifery Nurse with the Lower Manya Krobo Health Directorate in the Eastern Region disclosed that teenage pregnancy is on the increase in the Lower Manya Krobo Municipality of the Eastern Region. Touching on statistics, it was noted that the district recorded a total of six hundred and thirteen (613) cases in 2015, five hundred and eighty-four (584) cases were recorded in 2016 and five hundred and fifty-one (551) cases was recorded in 2017.

2.3.0 Determinants of Teenage pregnancy

Determinants of teenage pregnancy may be defined as reasons or causes or factors leading to pregnancy among teenagers.

2.3.1 Peer Influence and Sexual Behaviour

When children grow up, they start spending more time with their friends and less time with their parents. As a result, friends can influence a child's thinking and behaviour. This is the meaning of peer pressure. Peer pressure can be a positive influence for example when it motivates your child to do well in school, or to become involved in sports or other activities. On the other hand, peer pressure can be a negative influence for example, when it prompts your child to try smoking, drinking, using drugs, or to practice unsafe sex or other risky behaviours (Khoza, 2004).

Teenage sexual behaviour is a key contributing factor to the level of teenage pregnancy. Sexual activities of teenagers within or without marriage can have many adverse effects on their reproductive health outcomes. Varga (2003) states that after the family, the peer group is the most important socialization agent. Another study says that not only is the peer group a primary source of information on sexuality issue but they also create an environment in which peer pressure is exerted on the teenager to indulge in sex because “everyone does it” or because they do not want to “feel left out”(Jewkes, 2007). Studies have shown that teenagers with negative psycho-social circumstances are more vulnerable to risky sexual behaviour. As a way to prove their fertility, some teenage girls involve themselves in risky sexual activities. Most of these risky sexual activities were done with or without contraceptives (Waddington, 2007).

There is a great surge of genital sexual development during the teenage period. Due to the increased hormones, secondary sexual characteristics appear. Masturbation and sexual fantasies are common. In general, teenagers face a confusing and difficult time and need parental guidance (Heaven, 2001).

Moore *et al.,* (2004) found that early sexual activity is affected by developmental characteristics, such as early puberty and high levels of androgen hormones (i.e. testosterone), which are associated with increased teenage sexual behaviour.

Influences from peers have also been found to be a major contributor to teenage pregnancies. This is most often done by peers influencing or pressuring each other to indulge in sexual activities which most times is unprotected and therefore leads to unintended pregnancies (Smetana, 2006)

A study conducted in Ghana and Uganda documented that teenagers were influenced by their peers to indulge in unsafe sexual behaviours though they were not ready for that (Amuyunzu-nyamongo, 2005). Peer pressure has also been found to be a causal factor for premarital sexual activity in Sub-Saharan Africa.

2.3.2 Social Media

The mass media with its sexualized content is also a contributing factor that perpetuates teenage girl pregnancy as it gives teenagers easy access to pornographic and adult television programmes (Oni *et al*., 2005). Pornographic material and sexuality information is freely accessible via devices such as computers and cell phones. In her research, Rangiah (2012) established that teenage girls who were more exposed to sexuality in the media were also more likely to engage in sexual activities.

Bezuidenhout (2004) says that “sexually arousing material, whether it is on film, in print or set to music, is freely available to the teenager and such information is often presented out of context of the prescribed sexual norms of that society”.

According to Panday *et al*. (2009), there is no question that television also contributes to sexual activities amongst school children. Devenish (2004) mentioned teenagers today have access to books, films, videos, and magazines that are explicit in describing sexuality issues. Many are factually incorrect, creating unrealistic expectations from teenagers and increasing the myths about sexuality issues.

According to Bezuidenhout (2008), a cursory assessment of films South Africans could view during the month of April 2007 on M-Net indicated the following:

- Twenty-six percent (26%) contained explicit sex scenes.
- Fifteen percent (15%) contained nude scenes.
- Six percent (6%) were listed as appropriate for the whole family to view.
- Fifty-three percent (53%) contained no nude or sex scenes but did contain varying degrees and combinations of violence, foul language and content that either needed parental guidance or carried an age restriction.

A study conducted in the United States of America indicated that about 73% of teenagers used at least one form of social networking site such as Facebook, WhatsApp, Myspace and Twitter. Most college students reported the internet as their key source for information on sexual health. Although the teenagers according to the study indicated that they would have preferred getting information or talking to health professionals in person, searching for information on reproductive health or sexual health on the internet is their only option in obtaining such information (Selkie, 2011).

2.3.3 Family-Related Factors

Poverty is another contributor to teen pregnancy, and getting pregnant during the teen years makes it harder to break that cycle of poverty. Many families living in poverty can barely afford to pay rent and put food on the table, which leaves little funding for birth control pills, condoms or other forms of contraception hence leading to pregnancy. One reason why this occurs is that teen girls don't have the funds to purchase effective forms of contraception. Throughout the developed world, teenage pregnancy is more common among young people who have been disadvantaged in childhood and have low expectations of education or the job market. (Marlow *et al*, 2001).

A qualitative study at Chorkor, a suburb of Accra Ghana, by Gyan (2013) indicated that out of the 55 respondents, 94% agreed that poverty influences teenage pregnancy since most female teenagers exchange sex for gift or money. A study by Nyovani *et al.* (2007) as cited by Boamah (2013) also indicated that female teenagers from poor families have 2.7 times the odds of being engaged in premarital sex which mostly lead to teenage pregnancy compared to those from rich families. Studies have shown that fathers who leave their families due to divorce, family conflicts and poverty puts their daughters at greater risk for early sexual activities which may result in teenage pregnancy. This occurs due to lack of parental monitoring and mentoring from both parents (Odu, 2007).

Teen girls are more likely to get pregnant if they have limited or no guidance from their parents. Many parents have busy lives that prevent them from providing the guidance and support that their young teenagers need to make good decisions on issues such as sex, according to the website Parent Dish. When a teen does not feel that she can talk to her parents about sex either because they forbid sex talk or because they are not around, she will more than likely turn to

friends for direction on whether or not to have sex, resulting in misinformation and possible teen pregnancy (Khoza, 2004).

Teens can become pregnant as a result of sexual abuse or rape. The Guttmacher Institute states that between 43 and 62 percent of teens acknowledge that they were impregnated by an adult male, and two-thirds report that their babies' fathers are as old as 27. Approximately 5 percent of all teen births are the results of rape (Khoza, 2004).

2.3.4 Level of Education and Sex Education

Sex education programs based upon biological discursive regimes of knowledge regarding sex, sexuality, and sexual decision-making have been shown to have little or no effect on either delaying sexual initiation among adolescents, increasing contraceptive use among adolescents, nor on reducing the number of teenage pregnancies (DiCenso et al. 2002).

Sexual education programs in the schools allow students to acquire knowledge about sexual identity, attitudes, and beliefs toward sex, and intimate relationships. Not only is it about acquiring knowledge but it is also informing students about positive choices regarding safe sex and consequences that can affect their behaviour both physically and emotionally. Fortunately, it is students' right to sex education because it can benefit them from future problems and challenges, and improve their health. Teenagers who have low education level are at a higher risk of getting pregnant than those with a higher level. This is because girls who are much educated have more knowledge of the dangers of engaging in sexual activities at an early age and also they know how to take care of their bodies as well as issues concerning family planning methods and how to use them. Those who are less educated end up getting pregnant due to little knowledge (Khoza, 2004).

Another factor that influences teenage pregnancy is sex education. Sex education for teenagers in most parts of the world especially Africa is seen to be a taboo. Many parents, cultures, and societies frown on discussing sexual matters with their teenagers. According to a study, sex education is a sensitive and controversial topic in most countries. Issues such as who is to carry out sex education; whether parents or teachers, parental control over what is to be included in the sex education, the core values to be inculcated into the education and what is to be considered appropriate teenage sexual behaviour hinders the promotion of sex education (Shtarkshall, 2007). A study by Mueller, (2008) indicated that sex education for teenagers has a positive effect on their use of contraceptives during their first sexual intercourse. Notwithstanding all these benefits of sex education, most parents find it difficult to talk about sex with their teenagers. Just as the parents, teenagers also find it uncomfortable and difficult to discuss matters concerning sex with their parents as indicated by Shtarkshall et al. (2007). Shtarkshall et al. (2007) reported again that most teenagers prefer school as their source of information on sex with the home being the last choice even though they would have preferred additional information from their parents. Miller (2006), also reported that the lack of sex education which teaches the teenager about safe sex can lead to teenage pregnancy. A study by Adu-Gyamfi (2014) in the Upper Denkyira West district in Ghana also indicated that about 83% of the respondents agreed to the assertion that lack of sex education results in teenage pregnancy.

2.3.5 Knowledge and Use of Contraceptives

Teenagers are less likely than older women to seek family planning services. Low access to those services contributes much to teenage pregnancy. Most teenagers particularly those from lower-income families, sometimes lack access to contraceptives use because they cannot afford to buy

them hence they practice sexual activities without any protection and at the end, they conceive. Contraceptives use among teenagers is a big problem because prior planning is needed and most of them do not use any method on their first sexual intercourse (Muchuruza, 2002).

Another factor mostly associated with the level of teenage pregnancy is low or no use of contraceptives or unmet need for contraceptives.

A survey conducted by Oni *et al. (2005),* indicated that some teenage girls knew almost nothing about contraceptives. According to Panday *et al.* (2009), the question to be asked is why, in an age of improved and more available methods of contraception, do so many teenage girls become pregnant? Newman (2008), maintains that one of the reasons for the high pregnancy rate amongst teenagers is that they use no method of contraception. Ferguson (2004) and Wood and Jewkes (2006) give the following reasons why teenagers did not use contraceptives:

- Fear that contraception could cause infertility.
- The belief that contraceptives can make you sick.
- Contraceptives diminished sexual feelings.
- Limited and inaccurate knowledge about contraceptive methods.
- Girls do not use birth control because they want to get pregnant.
- The unavailability of contraceptives.

A study in the Niger Delta of Nigeria revealed that lack of resources reduces accessibility to contraceptive and reproductive advice in developing countries. The study further stressed that this situation has been exacerbated by religious beliefs that discourage the use of artificial birth control or family planning methods (Isa & Gani, 2012).

A report in the 2010 Ghana Population and Housing Census indicated that there is low usage of contraceptives by teenagers who are sexually active in Sub-Saharan Africa which has led to an

increased rate of unplanned pregnancies and sexually transmitted infections including HIV/AIDS (Blanc & Way, 2014). The percentage use of modern contraceptives by women between 15 and 19 years 5.2% and 7.6% for all female teenagers and teenagers who are currently married respectively. Ghana, therefore, reported the lowest contraceptive use between women aging from 15 to 19 (GSS, 2010).

In Ghana, the use of contraceptives is lower in adolescents between the ages of 15 and 19 years. Knowledge of contraceptives is also lower in rural areas as compared to urban areas. However, there has been an increase in the level of knowledge about contraceptives for women between ages 15 and 49. Awusabo-Asare *et al*. (2006), in a report on the 2004 Youth Reproductive Health Survey (YRHS) among adolescents between the ages of 12 and 19 years indicated that 90% of adolescents know at least one modern method of contraceptive. It was realised that the male condom was the widely known contraceptive method followed by the female condom and the pills respectively. It was further revealed that 8% of adolescent girls between the ages of 15 and 19 who are currently married also use contraceptives (GSS, 2008).

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study Method and Design

This study employed a cross-sectional design which is mainly a descriptive survey research design to assess the factors that influence the rate of teenage pregnancy in the Lower Manya Krobo Municipality in the Eastern Region of Ghana.

3.2 Data Collection Techniques and Tools

Data collection is a series of interrelated activities aimed at gathering information to answer emerging research problem/questions (Creswell, 1998). The researcher used questionnaires to collect data because of their ability to gather a lot of information. In this case, both open and closed-ended structured questionnaires were used to collect information from the study participants. A questionnaire is a research instrument consisting of a series of questions prepared by the researcher for the purpose of gathering information from the respondents (Brink, 2006).

The questionnaire was administered by field assistants who were trained on the nature of the study, confidentiality, voluntary participation and how to collect the quantitative data.

3.3 Study Population

Fraenkel (2000) described the study population as the group of interest to the researcher, "the group to whom the researcher would like to generalise the result of the study". Bordens (2002) also confirm that a population includes all people in a definable group. This implies that a population can be of any size and that it will have at least one (and sometimes several) identifiable characteristics that set it off from any other population. The study population for this

particular project consisted of resident teenagers aged between 10 and 19 years in the Odumase-Krobo the municipal capital of the Lower Manya Krobo Municipality and its environment, who were and were not receiving reproductive health services from the sixteen (16) health facilities in the Municipality.

3.4 Study Variables

3.4.1 Independent variables

- Peer inference and Sexual behaviour
- Electronic/Social Media
- Family-related factors
- Level of Education and Sex Education
- Knowledge and use of Contraceptives (Family planning)

3.4.2 Dependent variable

- Pregnancy status

3.5 Sampling Technique

A purposive sampling technique was adopted to gather the data .The sample size was made up of resident teenagers aged between 10 and 19, of the Lower Manya Krobo Municipality. The sample size was calculated by using the proportion of pregnant teenagers in the population taken to be 15.6% (GHS – Lower Manya Krobo Municipality Report 2017). Using a confidence interval of 95% and a margin of error of 5% and the formula below by Cochran (1963).

$$n = \left[z^2 \times \frac{pq}{e^2}\right]$$

$$n = \left[1.96^2 \times \frac{0.157 \times 0.843}{0.05^2}\right] = 203$$

Where,

n = the required sample size

p = prevalence of teenage pregnancy

z = score at 95% confidence interval, and

e = margin of error

A 10% non-response rate was added bringing the total number to **223.** The sample size was obtained using purposive sampling techniques.

3.6 Pre-testing

A pilot study was carried out just after the research assistants have been trained in data collection. A pilot testing was done with the use of the questionnaires at Yilo Krobo Municipality since the teenagers have similar characteristics as those in the study area. The questionnaires were reviewed and the necessary corrections were made just after pretesting before data was collected. The pretesting helped to check the adequacy of the questions, time estimated for completing each questionnaire.

3.7 Data Handling

The questionnaires were labelled with numbers as per the sample size (001- 223). The questionnaires were kept securely in the folder after being filled correctly. At the end of each day, the researcher counter checked if the questionnaires were properly filled.

3.8 Data Analysis

Data analysis is the process of systematically applying statistical and/or logical techniques to describe, illustrate, condense, recap, and evaluate data (Tobias, 2001).

The researcher sorted, edited, coded and analyzed the data that was collected from the field using Microsoft Excel version 2016 and STATA statistical software package (*StataCorp.2007. Stata Statistical Software. Release 14. StataCorp LP, College Station, TX, USA*). Statistical analysis involved the use of descriptive tools such as percentages, frequencies, cross-tabulations, chi-square test to evaluate the level of associations between the outcome variable and selected explanatory indicators. Bivariate and multivariate analyses were used to further tease out potential association among and predict factors that statistically influence teenage pregnancy respectively. A p-value of less than 0.05 or a 95% confidence level was considered statistically significant. Household Socio-Economic status was derived through a principal component analysis of basic household assets

3.9 Ethical Consideration

Casley (1998) defines ethics as the systematic thinking about the moral consequences of decisions. He states that the importance of ethics in research is that it promotes the aim of it, such as knowledge, truth, and avoidance of error for example prohibitions against fabricating, falsifying, or misrepresenting research data which promotes the truth and avoid error.

Permissions to conduct this study were duly obtained with the aid of the requisite documentations, including the use of both assent and consent forms. Administrative approvals were also obtained from the offices that have jurisdiction over the participatory communities. The researcher introduced himself to respondents as a student conducting the study and sought

permission first before asking them to respond to the questionnaire. Respondents were assured of anonymity and confidentiality of their responses, due to the sensitivity of some information such as age at first sexual intercourse resulting in teenage pregnancy. Ethical approval was obtained from the Ensign College of Public Health Ethics Review Board. Finally, all documents such as professional and academic articles and other published papers that were collected were duly acknowledged in the reference list.

3.10 Limitations of the Study

The main challenge encountered during the fieldwork of the study was the difficulty in getting information on age at the respondents' first sex and also if ever pregnant since it is very confidential and private especially among the students. Male data collectors used would not allow the respondents (female) to comfortably give out certain sensitive information. Some parents would not permit the researcher to conduct the interview for teenagers especially in the age group of 10-15 years. The generalization of the findings to a larger Ghanaian population will not be appropriate since the sample size used is not large enough.

3.11 Assumptions

It was assumed that the teenagers were made to understand the questions asked by the researchers before giving out the truthful answers after it was assumed that they had knowledge about sex.

CHAPTER FOUR

4.0 RESULTS

4.1 Introduction

This chapter discusses the analysis and findings of the study. It covers factors such as respondents' socio-demographic, social media influence on teenage pregnancy, knowledge, and use of contraceptives, peer influence and sexual behaviour, the influence of sex education on teenage pregnancy and family-related factors.

4.2 Socio-demographic characteristics of Teenagers

Table 4.1 below represents the socio-demographic background of the study participants. It shows that majority 43.5% (97) of the respondents were in the 14-17 years age range. Majority of the participants 95.52% (213) were single, 3.59% (8) were co-habiting and very insignificant portion 0.9% (2) reported being married at the time of conducting the study. More than half 68.61% (153) of the participants reported being enrolled in schools at the time of the study. About four out of ten, 43.95% (98) of the respondents acknowledged attaining Junior High School as the highest level of education and 4.93% (11) had no formal education. Majority 93.27% (208), identified themselves as Christians, 4.48% (10) as Muslims and 2.25% (5) as traditionalists.

Krobo was the dominating ethnic group 72.65% (162) represented in the study, followed by Ewe 15.7% (35), Akan 10.76% (24) and Ga 0.9% (2). More than two-thirds 74.89% (167) of the participants were born within the Lower Manya Krobo Municipality and 25.11% (56) were born outside the Municipality.

On the question regarding the number of children one has, 83.86% (187) were without children, 15.7% (35) had a child, and 0.45% (1) had two (2) children. Out of the 223 participants

interviewed on the status of pregnancy, 43.95% (98) of them admitted having experienced pregnancy. While 56.05% (125) reported never being pregnant. Concerning what participants do for a living, most of them identified themselves as students 67.26% (150), 12.56% (28) as traders, 11.21% (25) as unemployed, 7.62% (17) as artisan apprentices, and 1.35% (3) as teachers.

Table 4.1: Demographic characteristics of teenagers (n=223)

Characteristics	Frequency	Percent
Age-group		
10-13yrs	40	17.94
14-17yrs	97	43.5
18-19yrs	86	38.57
Marital Status		
Single	213	95.52
Co-habiting	8	3.59
Married	2	0.9
Currently in School		
Yes	153	68.61
No	70	31.39
Highest Education Level		
Primary	52	23.32
JHS	98	43.95
SHS	62	27.8
None	11	4.93
Religious affiliation		
Christianity	208	93.27
Islam	10	4.48
Traditional	5	2.24
Ethnic background		
Krobo	162	72.65
Ewe	35	15.7
Akan	24	10.76
Ga	2	0.9
Place of Birth		
Within the LMKM	167	74.89
Outside the LMKM	56	25.11

Characteristics	Frequency	Percent
Number of Children		
0	187	83.86
1	35	15.7
2	1	0.45
Pregnancy status		
Yes	98	43.95
No	125	56.05
Occupation		
Trading	28	12.56
Students/Pupils	150	67.26
Artisan	17	7.62
Teaching	3	1.35
None	25	11.21
Age	**Mean Age = 16.16**	**SD = 2.32**

Source: *Field data*

4.3 Participant's perceptions on factors influencing teenage pregnancy

The participants' perceptions were sorted on social media influence, peer influence, sexual behaviour and knowledge, use of contraceptives, the influence of sex education and family-related factors on teenage pregnancy as shown in the Figures 4.1 and 4.2 below.

From the findings, 56.50%, 65.02% and 54% of the respondents had the perception that Sexual behaviour, Peer influence, and Electronic/Social Media influence teenage pregnancy respectively. In the same analysis, it was revealed that 38.57%, 26.01% and 42% of the respondents' perceptions disagreed to that assertion. Further analysis indicated that, 97.76%, 63.23% and 39% of the respondents had the perception that family-related factors, knowledge, and use of contraceptive and sex education have influence on teenage pregnancy respectively, 0.45%, 3.14% and 8.52% of them were indecisive on the fact family-related factors, knowledge,

and use of contraceptive and sex education can influence teenage pregnancy respectively. Details of what constitutes the respondents' perceptions of these factors were explained below.

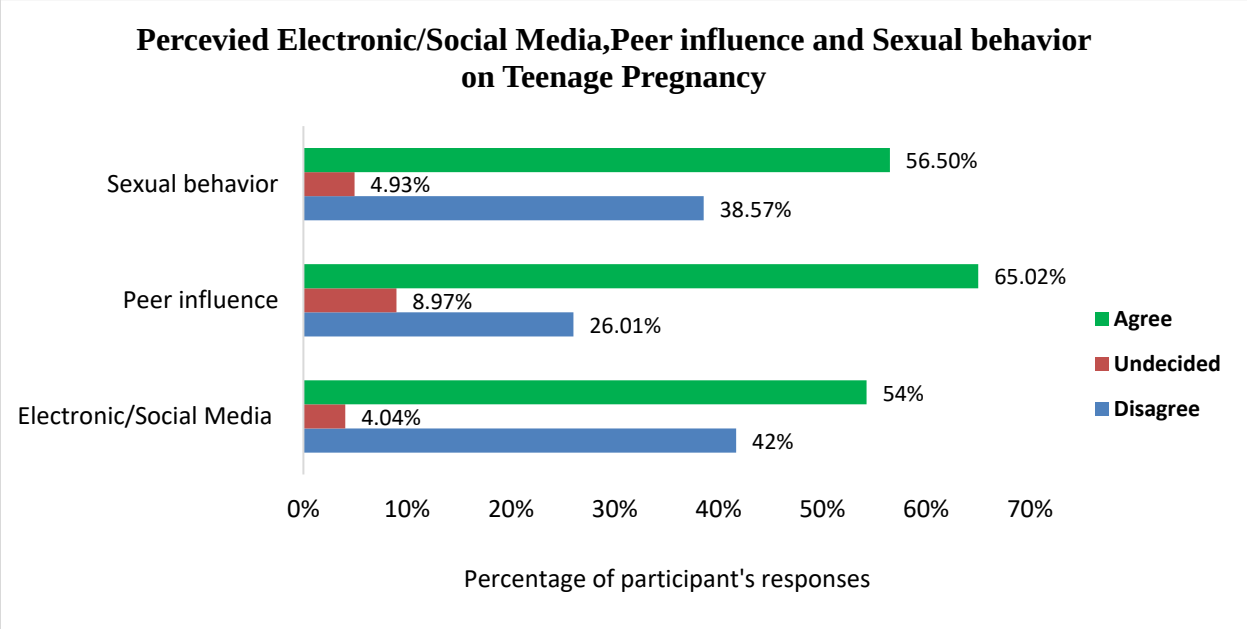

Figure 4.1: Participant's perceptions on Electronic/Social Media, Peer and Sexual behaviour influence on Teenage Pregnancy **(n=223)**

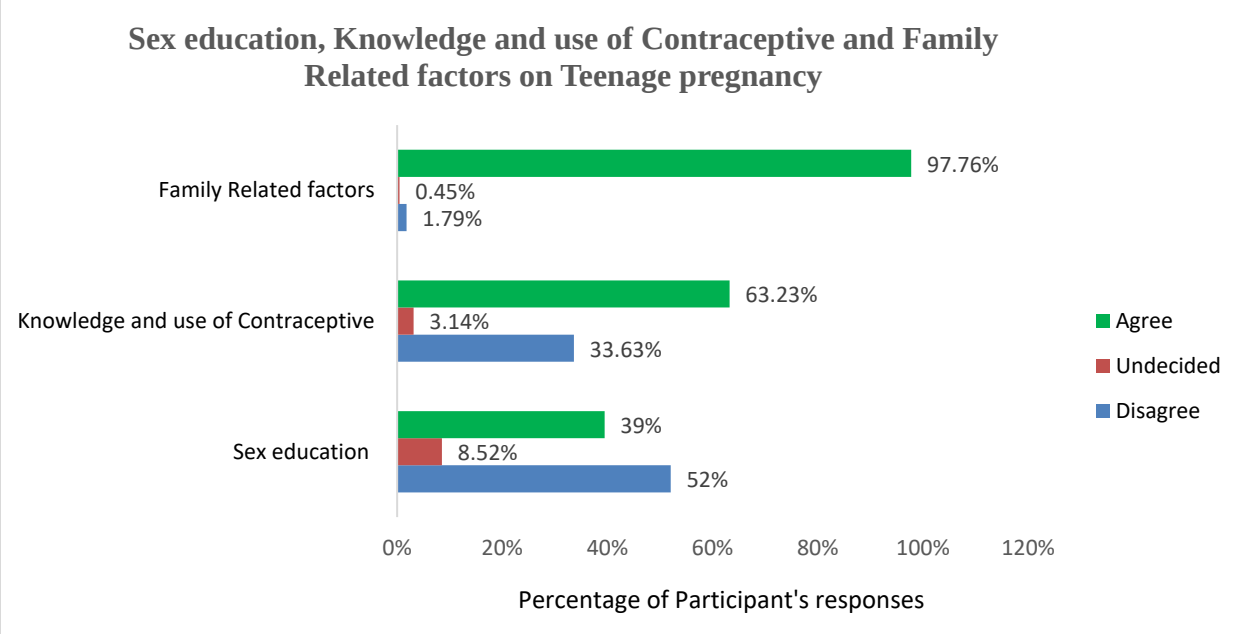

Figure 4.2: Participant's perceptions on Sex education, Knowledge and use of Contraceptive and Family Related factors influence on Teenage Pregnancy **(n=223)**

4.4 Demographic characteristics and Pregnancy status

The study sought to find out the level of statistical association between selected demographic variables and the pregnancy status among the teenagers in the Lower Manya Krobo Municipality who participated in the research. The findings from the bivariate analysis as shown in Table 4.2 below clearly revealed significant statistical associations between the response variable (*pregnancy status*) and the respondent's age ($p < 0.0001$). There was also a noticeable significant association between marital status ($p < 0.0001$), the current enrollment status in school ($p < 0.0001$) and the reported occupation ($p < 0.0001$) of the respondents.

From the same output, it was however noted the lack of significant association between one variable that is the highest attained educational level and the respondents' reported pregnancy status at the time of the study($p= 0.086$).

Table 4. 2: Bivariate Analysis of Demographic characteristics on Pregnancy status

Factors	Frequency (%)		Chi-square P- value
	Pregnant (98)	Non- Pregnant (125)	
Age-group			
10-13yrs	1(1.02)	39(31.20)	<0.001*
14-17yrs	25(25.51)	72(57.60)	
18-19yrs	72(73.47)	14(11.20)	
Marital Status			
Single	88(89.80)	125(100)	<0.001*
Co-habiting	8(8.16)	0(0.00)	
Married	2(2.04)	0(0.00)	
Currently in School			
Yes	33(33.67)	120(96.00)	<0.001*
No	65(66.33)	5(4.00)	
Highest Education Level			
Primary	24(23.47)	29(23.20)	0.086
JHS	35(35.71)	63(50.40)	
SHS	33(33.67)	29(23.20)	
None	7(7.14)	4(3.20)	
Occupation			
Trading	26(26.53)	2(1.60)	<0.0001*
Students/Pupils	32(32.65)	118(94.40)	
Artisan	16(16.33)	1(0.80)	
Teaching	2(2.04)	1(0.80)	
None	22(22.45)	3(2.40)	

*Note: * indicates the measured association is statistically significant at* $\alpha < 0.05$

Source: Field data

4.5 Influential factors of Teenage Pregnancy

The results from the study showed that almost all the respondents 208 (93.28%) own mobile phones and share mobile phones with family members. Concerning the first choice of social media activities they engage in, 68(30.49%) of them reported using WhatsApp, 45(20.18%) reported using Facebook, 7(3.14%) Youtube, 4(1.80%) Twitter and 99(44.39%) reported not engaging in any of the listed social activities.

On the question regarding having sex, 109(48.88%) of them acknowledge having sex whereas 114 (51.12%) of them reported never had sex as at the time of the study. About half of the

respondents 58(53.21%) who reported ever having sex, fall within the ages of 13 to 15 years when they first had sex. Regarding the individual who initiated them into sex the first time, 60(55.04%) indicated friends/themselves, 44(40.37%) mentioned boy/girl lovers and 5(4.59%) indicated relatives.

Looking at the reasons for engaging in sex the first time, more than half 73(66.97%) admitted it was consensually, whereas 4(3.37%) of them bitterly reported being raped. When the respondents (ever had sex) were asked their knowledge of contraceptives 85(77.98%) reported having knowledge whilst 24(22.02%) of them did not. More than half of those who ever had sex 58(53.21%) reported never using any form of contraceptives whereas 51(46.79%) reported using contraceptives. (see Table 4.3).

Table 4.3: Univariate analysis of some influential factors and teenage pregnancy status

Factors (N=223)	n(%)
How Mobile Phone is used	
Own a mobile phone	103(46.19)
Share Phone with Families	105(47.09)
Share Phone with Friends	8(3.58)
Share SIM with Friends	7(3.14)
Types of social activities	
WhatsApp	68(30.49)
Facebook	45(20.18)
YouTube	7(3.14)
Twitter	4(1.80)
None	99(44.39)
Had sex	
Yes	109(48.88)
No	114(51.12)
Among only those ever had sex (n= 109)	
Age at First Sex, years	
10-12	6(5.50)
13-15	58(53.21)
16-18	45(41.28)
Who initiated you into first sex?	
Friend	30(27.52)
Myself	30(27.52)
Boy/girl lover	44(40.37)
Relative	5(4.59)
Reasons for the initiation of sex	
Consensual Sex	73(66.97)
Rape	4(3.37)
Financial gains	32(29.36)
Knowledge of Contraceptive	
Yes	85(77.98)
No	24(22.02)
Use of Contraceptive	
Used	51(46.79)
Never Used	58(53.21)

Source: Field data

The study further sought to measure the level of statistical association between selected influential variables and the pregnancy status among the consented respondents who participated in the research. The output from the bivariate analysis as shown in Table 4.4 below, clearly indicated significant statistical associations between the response variable (*pregnancy status*) and ever having sex ($p<0.0001$). A noticeable significant association between peer influences on the desire to have sex was also observed ($p<0.0001$). There was also an observed statistically significant association between the reported pregnancy status and electric media influence on early sex ($p<0.0001$). How often the participants use the internet for social activities daily was also observed to have significant statistical value ($p<0.0001$).

Further analysis of the data pointed out clearly that they were significant statistical associations between the response variable (*pregnancy status*) and religious activities that included sex education, social media activity influence on sexual behaviour and whether both parents were living together ($p<0.0001$).

From the same output, it was however noted the lack of significant association between two (2) other variables and the respondents' reported pregnancy status at the time of the study. These included the household social economic status ($p= 0.741$) and source of information on SRH ($p= 0.167$).

Table 4.4: Bivariate analysis of some influential factors of pregnancy status

Factors	Frequency (%)		Chi-square
	Pregnant (98)	**No Pregnant** (125)	**P- value**
Had Sex			
Yes	98(100.0)	11 (8.80)	<0.0001*
No	0 (0.0)	114 (91.20)	
Peer influences opinion on sex			
Yes	92(93.88)	61(48.80)	<0.0001*
No	6(6.12)	64(51.20)	
Electric Media influence early Sex			
Yes	85(86.73)	65(52.00)	<0.0001*
No	13(13.27)	60(48.00)	
Often use of the internet for social activities			
Less than 4 times per day	60(61.22)	43(34.40)	<0.0001*
4 times and more per day	11(11.22)	9(7.20)	
None	27(27.55)	73(58.40)	
Does religious activities include sex education?			
Yes	89(90.82)	74(59.20)	<0.0001*
No	9(9.18)	51(40.80)	
Household Socio-Economic status			
Low	17(17.35)	26(20.80)	0.741
Middle	23(23.47)	31(24.80)	
High	58(59.18)	68(54.40)	
Source of Information on SRH			
Peer	32(32.65)	58(46.40)	0.167
Parents/Guardians	32(32.65)	31(24.80)	
Media/TV	5(5.10)	8(6.40)	
Health Professionals/Teachers	29(29.59)	28(22.50)	
Social media activity influence on sexual behaviour			
Yes	55(56.12)	15(12.00)	<0.0001*
No	43(43.88)	110(88.00)	
Do parents live together?			
Yes	35(35.71)	77(61.60)	<0.0001*
No	63(64.29)	48(38.40)	

*Note: * indicates the measured association is statistically significant at $\alpha < 0.05$*

** Household Socio-Economic status was derived through a Principal Component Analysis of basic household assets.*

Source: Field data

4.6 Regression analysis of influential factors and pregnancy status

Logistic regression models were used to ascertain the strength levels of the associations between selected influential factors and pregnancy status among teenagers who participated in the study (see Table 4.5). In the unadjusted regression model, age (14-17year; OR= 13.5, 95% CI= 1.77-103.77, 18-19years; OR=200.6, 95% CI=25.41-1583) was found to be a significant potential factor in predicting pregnancy among teenagers. In the adjusted model, it was observed that the respondents within the age groups of 14-17years and 18-19years were 6 and 51 times more likely to become pregnant respectively as compared to the participants within the age group of 10-13 years controlling for the other covariates. It was also observed that within the age group, as teenagers' age increases beyond 17years the chances of them becoming pregnant is high.

The issue of parents living together or not was also found to have a significant statistical influence on pregnancy status among the teenagers (OR=0.35, 95% CI= 0.20-0.60). Participants whose parents live together were 0.27 times less likely to become pregnant as compared to teenagers whose parents do not live together.

Another factor that significantly contributed to the pregnancy status among teenagers at the time of the study was "*social media activity*" on sexual behaviour. Teenagers who were involved in such practices were 9.38 times more likely to become pregnant compared to their counterparts in the unadjusted model. However, this strength of likelihood noticeably reduced in the adjusted model following the effect of the other covariates. Teenagers who engage themselves in social media activities such as Facebook, WhatsApp, Twitter, etc. were 5.8 times more likely to become pregnant as compared to teenagers who do not engage themselves in social media activities as at the time of the study.

The reported school enrollment status (whether currently in school or not) at the time of the study was also found to be a significant influential factor on the pregnancy status of the respondents (OR=0.02, 95% CI=0.008-0.06). Enrollment in school tends to serve as a protective factor to getting pregnant in both the unadjusted and adjusted predictive models. The respondents who reported being in school at the time of the study were 0.02 times less likely to become pregnant as compared to teenagers not currently in school.

Peer influences opinion on sex (OR= 16.1, 95% CI = 6.56-39.46) and whether various churches include sex education in their activities (OR= 6.82, 95% CI = 3.15-14.76) were all found to be a potential factor among the participants of the study. Teenagers who indicated that peers influence their opinion on sex were 8 times more likely to be pregnant compared to their counterparts whose opinions on sex are not influenced by their peers.

Even though household socio-economic status and sex education at a religious level were not statistically significant, it was observed that as household socio-economic status changes from "*Middle*" to "*High*" status, the chances of the teenagers becoming pregnant increases from 2.04 to 2.94 when other covariates were adjusted for in the model. It was clear that teenagers who indicated receiving sex education during their religious activities rather have 2.4 times higher chance of becoming pregnant as compared to those never received sex education at the same level. However, in the multivariate analysis, only household social economic status was found to be statistically insignificantly.

A "goodness-of-fit" test conducted on the adjusted predictive model failed to reject *"**H_o**: This is a good fitting model"* with an estimated p-value of 0.7987.Therefore making room for a conclusive decision that the model is good.

Table 4.5: Logistic regression of influential factors and pregnancy status in the Lower Manya Krobo Municipality

Factors	P-value	Unadjusted OR(95% CI)	P-value	Adjusted OR(95% CI)
Age, years				
10-13	Reference	1		1
14-17	0.012*	13.50(1.77-103.77)	0.353	6.00(0.14-262.42)
18-19	<0.0001*	200.60(25.41-1583)	0.044*	51.00(1.11-2254)
Parents live together				
No	Reference	1		1
Yes	<0.001*	0.35(0.20-0.60)	0.027*	0.27(0.08-0.86)
Social media activity influence on sexual behavior				
No	Reference	1		1
Yes	<0.001*	9.38(4.80-18.35)	0.006 *	5.80(1.65-20.24)
Currently in School				
No	Reference	1		1
Yes	<0.001*	0.02(0.008-0.06)	<0.001*	0.02(0.01-0.08)
Peer influences opinion on sex				
No	Reference	1		1
Yes	<0.001*	16.10(6.56-39.46)	0.014 *	8.00(1.54-41.70)
Does religious activities include sex education?				
No	Reference	1		1
Yes	<0.001*	6.82(3.15-14.76)	0.236	2.40(0.56-10.24)
Household Social Economic status				
Low	Reference	1		1
Middle	0.46	1.30(0.65-2.64)	0.334	2.04(0.48-8.61)
High	0.761	1.13(0.50-2.56)	0.199	2.94(0.57-15.22)

Note: ** indicates the measured association is statistically significant at $\alpha < 0.05$*
Source: Field data

```
Logistic model for pregnancystatus, goodness-of-fit test

       number of observations =       223
 number of covariate patterns =        92
            Pearson chi2(82) =     71.13
                  Prob > chi2 =    0.7987
```

CHAPTER FIVE

5.0 DISCUSSION

5.1 Introduction

The purpose of this study was to find out probable factors that influence the rate of pregnancy and to understand why among female teenagers within the Lower Manya Krobo municipality some get pregnant during the teenage stage whilst others do not. The reported age of the studied participants, being in school, place of birth, social media activity influence on sexual behaviour, peer influences opinion on sex and living togetherness of parents were found to influence teenage pregnancy.

5.2 Incidence of teenage pregnancy

The study revealed that at least one out of about two teenagers have either given birth or pregnant by age 19 years. Out of the 223 respondents used for the study, 98 (43.95%) were either pregnant or have a live child before or at the age of 19 years. This finding is not in line with that in a research conducted by Gyesaw (2013) also reported about 12% of teenage girls between ages 15 and 19 years are pregnant or have already given birth. The GSS (2010) also reported that 44% of women aged between 25 and 49 years were sexually active by age 18 years. This is consistent with the findings of this study where the majority of the teenagers had their first sexual encounter between the ages of 18-19 years.

5.3 Factors influencing pregnancy status

5.3.1 Influence of socio-demographic factors on pregnancy status

The study revealed that there was a significant statistical association between socio-demographic factors such as age, marital status, current occupation, and teenage pregnancy. The finding with regard to the age was consistent with the findings of the 2014 GDHS report (GSS, 2015). The 2014 GDHS, reported that teenage pregnancy increased with age and teenagers are more likely to begin childbearing at an early age (GSS, 2015).

In terms of marital status, there was a significant difference among the participants with regard to teenage pregnancy with the majority of the participants not married. This finding is similar to what was reported in the 2008 GDHS, where teenage pregnancy was found to be among teenagers who had never been married (GSS, 2009). It was also consistent with a UNICEF (2008) report which stated that 10-40% of young unmarried girls have had an unplanned and unwanted pregnancy. On the other hand, the 2011 UNICEF children report rated Ghana as among countries with a high rate of early marriage. It has also been found that teenage girls engage in early marriage as proof of their fertility Shuaib *et al.* (2011). In the Lower Manya Krobo Municipality, as shown in the study findings, teenagers do not need to get married to prove their fertility. On the issue of current occupation, the study established that a significant proportion of the respondents who reported getting pregnant 22 (22.45%) were neither working nor studying in school to acquire any skill.

5.3.2 Influence of electric\social media on pregnancy status

Another factor that was observed to influence teenage pregnancy is the use of electric\social media by teenagers. The study showed that about 86.73% of impregnated teenagers and 52.0%

of non- pregnant teenagers used electric media for at least one social media activities such as WhatsApp and Facebook, etc. This is consistent with a study in the United States of America by Selkie *et al.* (2011) which indicated that about 73% of teenagers use one form of social networking sites such as Facebook and WhatsApp. In this study, the use of electric\social media, its activities and their influence on sexual behaviour were found to influence teenage pregnancy. This finding is consistent with the findings of Strasburger *et al.* (2009) and Chandra *et al.* (2008) which presented the influence of the social media on early sexual behaviour of teenagers and its consequences such as Sexually Transmitted Infection (STI) and unwanted pregnancy since most of the adolescents just look at the thrilling aspect of sex as depicted by the media and not its consequences.

Again the study established that the majority of teenagers use the internet once a day to listen to sexually explicit music and chat with people they don't know on their mobile phones. Connell (2009), states that preliminary evidence suggests that displays of sexual material on Facebook are associated with the reported intention to become sexually active among teenagers. This agrees with the finding.

5.3.3 Influence of knowledge and use of contraceptives on pregnancy status

Knowledge and use of contraceptives is another factor known to have a greater influence on adolescent pregnancy. Most studies have linked the non-use of contraceptives by teenagers to lack of knowledge on contraceptives. As indicated by Kumar *et al.* (2007) and Odu (2007), lack of contraceptive use in teenagers is as a result of lack of knowledge on contraceptives in teenagers. The findings of this study, however, were not in agreement with those outcomes. Findings of this study indicated that 76.29 % of the pregnant teenagers and 55.22 % of the non-

pregnant teenagers had knowledge of contraceptives. In total, 73.54 % of the respondents of the study who heard of family planning had knowledge of at least one method of contraceptive. This is in line with the study by Awusabo-Asare *et al.* (2006) which stated that about 90% of teenagers between the ages of 12 and 19 years have knowledge on at least one modern method of contraceptive.

Notwithstanding the high rate of contraceptive knowledge among the respondents, only a few 31.71% reported ever using contraceptives. As high as 54.64% of the pregnant teenagers and 88.06% of the non-pregnant teenagers reported never using any form of contraceptive. This corresponds with the GSS, (2010) report which placed Ghana among the nations with the lowest usage of contraceptives in women between the ages of 15 and 19 years. The study also found that about 43.21% of the respondents who were sexually active did not use any form of contraceptive during their first sexual intercourse. This finding is not consistent with the Southwark teenage pregnancy report (2010) which indicated that most sexually active teenagers do not use any form of contraceptive during their first sexual experience. The findings, however, contradict a Guttmacher Institute report in 2014 that showed that 78% of female and 85% of male teenagers in the USA use contraceptives during their first sexual experience. However, this study found that there was a significant association between knowledge on contraceptives and contraceptive use and teenage pregnancy hence found to influence teenage pregnancy in the municipality.

5.3.4 Influence of peer and sexual behaviour on pregnancy status

Another factor that is known to have an influence on teenage pregnancy is peer influence and sexual behaviour. This study found that most of the teenagers among the study were sexually active within the ages of 14-17 years with the mean age of 15.2 years. Out of the number that

reported being sexually active, 55.10% of the pregnant teenagers as compared to 36.36% of the non- pregnant teenagers did not use any form of contraceptive for protection during their first sexual intercourse. This is consistent with the findings of the studies of Makiwane (2010) and Adu-Gyamfi (2014) who reported that most teenagers become sexually active at an early age, do not normally use any form of protection or contraceptives. The findings of this study also pointed out that, about 67.89% of the teenagers were initiated into sex due to the pressure from their friends and boy/girl lovers. This finding is consistent with that of the study by Amuyunzu-Nyamango *et al.* (2005) where most teenagers were reported to indulge in unsafe sexual behaviour as a result of pressure from peers. Smetena *et al.* (2006) have also linked teenage pregnancy to teenagers' sexual activities facilitated by peer pressure or influence. Again, the study established that 3.67% of the study participants were initiated into sex as a result of rape. Peer influence on sexual opinion was found to influence teenage pregnancy and again found to be statistically significant to teenage pregnancy.

5.3.5 Influence of sex education on pregnancy status

With respect to sex education, the study found out that, there was a significant association between sex education and teenage pregnancy. This finding is contrary to the study by Adu-Gyamfi (2014) that relates lack of sex education to teenage pregnancy. Sex education at the religious level was found to be high among both the pregnant teenagers and the non-pregnant teenagers 90.82% and 59.20% respectively. With the source of information, 27.80% of the respondents indicated their parents/guardians as their source of information, followed by peers and the no source respectively (22.42% and 17.49%), about 15.70% of the respondents mentioned health professionals as their source of information on teenage reproductive health.

The study revealed that just like most teenagers, parents of these teenagers also found it easy to talk about sex to their wards which are contrary to the study by Shtarkshall *et al.* (2007).

5.3.6 Influence of family-related factors on pregnancy status

The last factor to be discussed is family related factors which include the economic status of parents/guardians and parents living together as couples and how they influence teenage pregnancy. According to the findings, 65.31 % of the pregnant teenagers and 80.08 % of the non-pregnant teenagers had both parents alive. Out of these percentages, 54.69% of pregnant teenagers compared to 76.24% of non-pregnant teenagers had parents still living together. The study revealed that there was a significant association between teenagers who have lost one parent or those whose parents were not still married and teenage pregnancy. It was revealed that teenagers whose parents live together had 0.017 less chance of getting pregnant as compared to those whose parents do not live together. This, therefore, confirmed the assertion by Odu (2007) that parents who leave their families put their daughters at a greater risk of early sexual activities which may result in teenage pregnancy. With respect to economic status, the findings revealed that was no significant association between the economic status of parents/guardians and teenage pregnancy when the odds ratio was unadjusted. The findings from the study with respect to economic factor contradicted a study by Gyan (2013) that revealed that poverty has a great influence on adolescent pregnancy. These findings, therefore, showed that one of the family related factors (ie. economic status), does not have any significant influence on teenage pregnancy in the Lower Manya Krobo Municipality.

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the summary of the key findings of the study and suggests recommendations to overcome the problem of teenage pregnancy rate in the Lower Manya Krobo Municipality and possibly beyond.

6.2 Conclusions

The study sought to find out why some teenagers within the Lower Manya Krobo Municipality in the Eastern Region of Ghana get pregnant during their teenage period whilst others do not get pregnant. The study was specifically to;

- Find out the factors that influence the rate of teenage pregnancy in the Lower Manya Krobo Municipality
- Recommend measures that can be employed to address the issue of teenage pregnancy in the Municipality.

The study results revealed that socio-demographic factors such as age, marital status, school enrollment status and the reported occupation of the participants had a significant statistical association with their pregnancy status. Other potential contributing factors included age at first sex, peer influences opinion on sex, electronic media influence, whether parents live together, use of internet for social activities, types of social activities, religious activities include sex education, source of information on SRH, Social media activity influence on sexual behaviour, and knowledge of contraceptive and its usage.

6.3 Recommendations

Considering the findings of the study, the following recommendations are made to help individuals, communities and policy makers solve the issue of teenage pregnancy.

- The findings of the study indicated that most of the teenagers who were pregnant were not in school. There is, therefore, the need to task Ghana Education Service to encourage education among teenagers, especially the female teenagers since a longer stay in school help to avoid early sexual debut and eventually pregnancy.
- Ministry of Health in collaboration with the Ministry of Education should strengthen and intensify reproductive health education programs in school. Similar programs should also be targeted to the young girls and boys in the communities undergoing various apprenticeship trainings.
- Ministry of Health, Ministry of Gender, Children and Social Protection, and the Ministry of Education should set in place holistic policies to equip the youthful proportion of the population with appropriate knowledge on sexuality, access to sexual and reproductive health services rather than the existing coaching approaches that tend to focus upon improving sexual ability, attitudes and norms.
- The Municipal Assemble under the auspices of the Municipal Health Directorate can deploy "*Peer educators*" to educate their fellow teenagers on sex education which covers reproductive health, use of contraceptives and consequences of risky sexual behaviors. Other relatives of the teenagers must also be educated and encouraged to educate them

about the need to possibly abstain from sexual intercourse prior to adulthood and marriage.

- The electronic and print Media should help produce features and editorials on the importance of ensuring all teenagers have access to advice on reproductive health and the means to prevent unwanted pregnancy. The teenagers can also be encouraged to use social media for the purpose of education.
- At the academic front, there is also the need for further research into the long term effect of teenage pregnancy in the municipality and also to explore through in-depth interviews the reasons behind the high rate of knowledge on contraceptives but low rate of use among teenagers in the Municipality.

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APPENDICES

APPENDIX 1: INFORMED CONSENT FORM

INFORMED CONSENT

I am a Student at Ensign College of Public Health, Kpong. I am conducting a research on the **FACTORS INFLUENCING THE INFLUENCING TEENAGE PREGNANCY** as an academic work which could be used for a database in policy formulation. I would be grateful if you could spare some time to answer this questionnaire. You are hereby assured of anonymity and that any information provided will be treated with the utmost confidentiality. If at any point you feel reluctant to participate you have the right to drop out without any offence or hindrance.

Respondent's Agreement

I have been given the opportunity to ask any questions about the research and answers given adequately to my satisfaction. I do hereby consent to be a participant in the study.

APPENDIX 2: QUESTIONNAIRE ON FACTORS INFLUENCING TEENAGE PREGNANCY IN THE LOWER MANYA KROBO MUNICIPALITY-EASTERN REGION, GHANA

Please tick (√) the appropriate answer.

Section A (Socio-Demographic Information)

1. Please, what is your age in years? ( )

2. What is your marital status? 1. Single ( ) 2. Co-habiting ( )
   3. Married ( ) 4. Divorced ( )

3. Are you currently in school? 1. Yes ( ) 2. No ( )

4. What is your level of education? 1. None ( ) 2. Primary ( ) 3. JHS ( )
   4. SHS ( ) 5.College/ Tertiary ( )

5. What is your religious affiliation? 1. Christian ( ) 2. Islam ( )
   3. Traditionalist ( )
   4. Others ( ) Specify……...

6. Indicate your ethnic background. 1. Krobo ( ) 2. Ewe ( )
   3. Akan ( ) 4. Ga ( )

7. Where were you born? 1. Within Lower Manya Krobo Municipality ( )
   2. Outside Lower Manya Krobo Municipality ( )

8. What do you do for a living? 1. Trading ( ) 2. Students/Pupils ( )
   3. Artisan ( ) 4. Teaching ( )
   5. None ( )

9. How many children do you have? ( )

Section B (Electronic Media and Teenage Pregnancy)

10. Do you think that electronic media influences teenagers to have sex at an early age?

    1. Yes ( ) 2. No ( )

11. Which of the following best describes you? Select only one answer.

    1. I have my own mobile phone ( ) 2. I share a mobile phone with my family members ( )

    3. I share a mobile with my friends ( ) 4. I share SIM cards with my family members ( )

    5. I share SIM cards with my friends ( )

12. Which out of the following do you think significantly influences teenage sex? Select only one answer.

    1. Online Television ( ) 2. Social Networking sites ( )

    3. Sexting on Mobile Phones ( ) 4. Online Radio ( )

    5. None ( )

13. Which of these do you personally use? Select only one answer.

    1. A Television ( ) 2. A Radio set ( ) 3. Smart Cell phones ( )

    4. Social networking sites ( ) 5. None ( )

14. How often do you connect to internet using electric media for social activities?

    1. Less than 4 times per day ( ) 2. 4 times and more per day ( )

15. What kind of material do you mostly look for using the indicated electronic media? Select only one answer.

1. Educational Material ( ) 2. Information on sex health and sexuality ( )

3. Explicit Music ( ) 4. Games ( )

5. Information on Alcohol and Drugs ( ) 6. None ( )

16. Which of the following social media have you engaged in?

1. WhatsApp ( ) 2. Facebook ( )

3. Twitter ( ) 4. YouTube ( )

5. None ( )

17. Does the answer to Q16 have any influence on your sexual behaviour?

1. Yes ( ) 2. No ( )

Section C (Peer influence and Sexual behaviour)

18. Have you ever had sex? 1. Yes ( ) 2. No ( ) if No skip to Q26

19. Have you ever been pregnant?. 1 Yes ( ) 2 No ( )

20. How old were you at your first sexual encounter? ( )

21. Who made you engage in your first sexual intercourse?

1. Pressure from friends ( ) 2. I wanted to ( )

3. Pressure from boyfriend /girlfriend ( ) 4. Pressure from Relative ( )

5. Others ( ) specify ……

22. How were you initiated into having sex?

1. Consensual Sex ( ) 2. Rape ( ) 3. For financial gains ( )

4. Under the influence of alcohol/drug ( ) 5. Others specify ……

23. Did you use any form of contraception during your last sexual encounter?

1. Yes ( ) 2. No ( )

24. If YES, which one?

1. Male Condom ( ) 2. Emergency Contraceptive Pill (ECP) ( )

3. Birth Control Pills ( ) 4. Female condom ( ) 5. Others specify …...

25. If NO, why not?

1. Pressure from boyfriend/ girlfriend not to ( ) 2. Didn't know how to use ( )

3 I didn't want to use ( ) 4. . Side effect ( ) 5. Rape ( )

26. Do you think peer influences affect your opinion on sex?

1. Yes ( ) 2. No ( )

Section D (Influence of Sex Education on Teenage Pregnancy)

27. Where/ who is your source of information on sexual and reproductive health?

1. Peers ( ) 2. Parents/Guardians ( ) 3. Media/TV ( )

4. Health Professionals/Teachers

28. Do your religious activities include sex education? ( )

1. Yes ( ) 2. No ( )

29. Will it be easy and comfortable for you to discuss sex issues with your family and friends?

1. Yes ( ) 2. No ( )

Section E (Knowledge and use of Contraceptive – Family Planning)

30. Have you ever heard of the term family planning? 1. Yes ( ) 2. No ( ) if no skip to Q36

31. Where did you hear it? 1. Health facility 2. Peer 3. Parents 4. Friends 5. TV/ Church

32. Have you heard of any method that can be used to prevent pregnancy?

1. Yes ( ) No. ( )

Methods	33. Do you have any knowledge about these method(s)?	34. Which of these method(s)do you use?	35. How often do you use any of these methods
Injectable	Yes ( ) No ( )	Yes ( ) No ( )	Every time ( ) Once a while ( ) Never used ( )
Condoms	Yes ( ) No ( )	Yes ( ) No ( )	Every time ( ) Once a while ( ) Never used ( )
Pills	Yes ( ) No ( )	Yes ( ) No ( )	Every time ( ) Once a while ( ) Never used ( )
Implants	Yes ( ) No ( )	Yes ( ) No ( )	Every time ( ) Once a while ( ) Never used ( )
Periodic abstinence	Yes ( ) No ( )	Yes ( ) No ( )	Every time ( ) Once a while ( ) Never used ( )
Others specify ……..	Yes ( ) No ( )	Yes ( ) No ( )	Every time ( ) Once a while ( ) Never used ( )

Section F (Family-Related Factors)

36. Are both of your parents alive?	Yes [ ] No [ ]
37. If yes are they still together?	Yes [ ] No [ ]
38. Do your parents/ guardians have regular income?	Yes [ ] No [ ]
39. Economic status Assessment Check List for parents/guardian (SES)	
Accommodation ownership Own Rented	 Yes [ ] No [ ] Yes [ ] No [ ]
Building Type Single Room Story Building Self-contained More than 3 – bedrooms	 Yes [ ] No [ ] Yes [ ] No [ ] Yes [ ] No [ ] Yes [ ] No [ ]
Radio	Yes [ ] No [ ]
Mobile Phone	Yes [ ] No [ ]
DVD	Yes [ ] No [ ]
Car	Yes [ ] No [ ]
Washing machine	Yes [ ] No [ ]
Refrigerator	Yes [ ] No [ ]
Sowing Machine	Yes [ ] No [ ]
Corn Mill	Yes [ ] No [ ]
Television	Yes [ ] No [ ]
Coco farm	Yes [ ] No [ ]
Motor bike	Yes [ ] No [ ]
Laptop/Computer	Yes [ ] No [ ]
Bicycle	Yes [ ] No [ ]
A set of furniture	Yes [ ] No [ ]
Goats/Fowl	Yes [ ] No [ ]

40. Indicate your perception of the following influencing teenage pregnancy.

Variables	Agree	Undecided	Disagree
Electronic/Social Media			
Peer influence			
Sexual behaviour			
Sex education			
Knowledge and use of Contraceptive			
Family Related factors(poverty, single parent, etc)			